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**3C-REN  
PORTFOLIO PLAN 2024-2027  
TESTIMONY**

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1           **CHAPTER 1.    PORTFOLIO SUMMARY (A. TELLEZ, E. HELSON, N. BARBA)**

2           **I.    PORTFOLIO OVERVIEW**

3           In this Application, 3C-REN proposes seven programs – four existing and three new –  
4 spanning four market sectors: Agricultural, Commercial, Cross-Cutting, and Residential.

5           **II.   PROPOSED PROGRAMS**

6           **A.    Agriculture Technical Assistance**

7           A new market support program will address unmet needs in the agricultural sector through  
8 partnership-building and customized technical assistance. The program will fill a gap by providing  
9 specialized support for indoor agriculture/cannabis and water-energy nexus measures, and focused  
10 outreach to the many smaller producers and socially disadvantaged agricultural customers in the  
11 Tri-County Region.

12          **B.    Commercial Marketplace**

13          A new equity program will serve Disadvantaged Communities (DACs) and hard-to-reach  
14 (HTR) customers by offering commercial sector programs for small- and medium-sized businesses  
15 who located in a leased or rented facility. 3C-REN will collaborate with already-established  
16 business programs; use a multilingual approach to outreach and education; and work with 3C-  
17 REN's successful Building Performance Training program to deploy knowledgeable local  
18 contractors. With the addition of this program 3C-REN can expand its services to be inclusive of  
19 the full scope of customers identified in the HTR criteria—both residential and commercial.<sup>1</sup>

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<sup>1</sup> HTR criteria established in Resolution G-3497 and updated in D.18-05-041.

1                   **C.       Energy Code Connect**

2                   A continuation of an existing codes and standards cross-cutting program that fills a gap by  
3 providing technical assistance delivered by Energy Code Coaches, regional forum events, and  
4 locally-focused training courses. The program has established the Tri-County Region as a leader  
5 in California Energy Code and Green Building Standards compliance, enforcement, and  
6 comprehension.

7                   **D.       Building Performance Training**

8                   A continuation of an existing workforce education and training (WE&T) market support  
9 cross cutting program that fills a gap by acting as the Tri-County Region’s training and resource  
10 hub and providing the latest building science practices and energy efficiency trainings. By offering  
11 WE&T programs locally, 3C-REN makes clean energy jobs and training accessible to  
12 disadvantaged workers by removing the locational barriers to these opportunities and building  
13 connections within the residential and commercial design, construction, and related industries.

14                   **E.       Energy Assurance Services**

15                   The new commercial and public market support cross cutting program will identify energy  
16 savings opportunities and offer technical support, including audits and benchmarking, to achieve  
17 comprehensive load management, energy savings and resilience objectives, modeled after Santa  
18 Barbara County’s Energy Assurance Services program. The program will help public agencies and  
19 special districts pursue energy upgrades by offering educational and networking opportunities to  
20 agency staff and specialized services to support planning for, funding, and contracting the work.

21                   This program will target HTR commercial customers and smaller public sector  
22 jurisdictions. While the public sector is not part of the current HTR criteria, these jurisdictions  
23 serve HTR customers. 3C-REN has included a policy recommendation that the HTR definition be  
24 expanded to include public sector.

1                   **F.       Single Family Home Energy Savings Program**

2                   An existing single family residential equity program targeted towards HTR single-family  
3 households that fills a gap in single family energy efficiency services in the region and delivers  
4 measurable energy savings. Savings will be claimed using a population Normalized Metered  
5 Energy Consumption (NMEC) Measurement and Verification (M&V) platform. The program  
6 implementer will deliver energy upgrades utilizing a network of energy efficiency installers  
7 (aggregators), paid incentives based on the metered savings achieved. Performance based  
8 incentives will encourage aggregators to maximize customer savings and grid benefits.

9                   **G.       Multifamily Home Energy Savings**

10                  An existing multi-family residential equity program that will continue to deliver energy  
11 savings to HTR multifamily properties and fill a gap in multifamily energy efficiency services in  
12 the region. The program requires three or more upgrades in the project scope, a percentage of  
13 which must directly benefit tenants, that achieve a minimum GHG savings per apartment. The  
14 program includes no-cost site assessments, technical assistance, and rebates paid directly to  
15 property owners/managers. The structure includes enhanced incentives for underserved properties  
16 and adders for high performance measures, such as heat pumps.

17                  **III. PORTFOLIO SEGMENTATION AND REN ACTIVITY**

18                  The following table lists each program by portfolio segmentation (Market Support, Equity,  
19 or Codes and Standards), identifies which specified REN activity it addresses (Gap-Filling, Pilot,  
20 or HTR), whether it is new or existing, and presents program-specific proposed budgets.

1 **Table 1: 3C-REN Portfolio Overview & Budget**

3C-REN Program	Market Sector	REN Activity			Existing or New	Portfolio Plan Budget (\$) ** 2024-2027	Strategic Plan Budget (\$) ** 2024-2031
		Gap Filling	Pilot	HTR*			
<b>MARKET SUPPORT</b>							
Agriculture Technical Assistance	Agriculture	X			New	3,035,434	6,538,938
Building Performance Training	Cross-Cutting	X			Existing	9,439,825	21,340,806
Energy Assurance Services	Cross-Cutting	X		X	New	1,778,906	3,939,661
<b>EQUITY</b>							
Commercial Marketplace Program	Commercial	X		X	New	10,015,293	21,379,645
Single Family Home Energy Savings	Residential	X		X	Existing	19,772,391	41,931,865
Multifamily Home Energy Savings	Residential	X		X	Existing	16,651,320	37,274,745
<b>CODES AND STANDARDS</b>							
Energy Code Connect	Cross-Cutting	X			Existing	7,819,621	16,747,290
<b>TOTAL</b>							
7 Programs	4 Market Sectors	X		X	4 Existing 3 New	68,512,790	149,152,950
<p>*In addition to HTR and DAC, 3C-REN’s portfolio prioritizes other vulnerable communities including but not limited to rural, hard-to-count, underserved, ESJ communities, disadvantaged workers, socially disadvantaged farmers, and the public sector entities serving these customers. While they may not meet the CPUC definition of HTR, which has been acknowledged as potentially being “overly narrow” (CPUC D.18-05-041 at 48), these customers are often underrepresented in traditional energy efficiency programs. Prioritizing these communities aligns with 3C-REN’s strategic framework and its commitment to diversity, equity, inclusion and justice (DEIJ); and it supports the CPUC’s recent guidance in D.21-05-031 regarding equity and market support programs. In this application 3C-REN has recommended expanding the HTR definition to include public sector.</p> <p>**Program budgets without evaluation, measurement and verification (EM&amp;V) costs, which are shown in Table 11.</p>							

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**IV. KEY METRICS AND OUTCOMES**

**A. Business Plan Proposed Outcomes**

3C-REN’s 2024-2027 Portfolio Plan is guided by the agency’s long-term vision and informed by three principles, activated by three strategies. This strategic framework is detailed in Exhibit 01: Strategic Business Plan and summarized below in Table 2.

The strategic framework aligns with and serves as a foundation for segmentation and sector strategies, as well as proposed programs identified in Exhibit 02: 2024-2027 Portfolio Plan. It is anticipated that while tactics and programs may change over the next eight years, this framework will provide a consistent guidepost and help to hone and measure activities effectively.

The desired outcomes described in the strategic framework tie to 3C-REN’s portfolio-, sector-, and segment-level metrics described in this four-year portfolio application. Those metrics are critical for tracking and quantifying progress and budget that will then support achievement of eight-year strategic business plan outcomes.

1

**Table 2: 3C-REN Portfolio Strategic Framework for Business Plan 2024-2031**

<b>PRINCIPLES</b>		
Provide equitable opportunities for hard-to-reach, disadvantaged and underserved communities to receive the many benefits offered by more energy efficient and resilient homes and buildings.	Be a trusted local resource and communication channel for energy efficiency and decarbonization to address the climate crisis and build regional resilience.	Enhance regional economic vitality by growing the market for energy projects and developing a local workforce with the expertise and resources to implement upgrades.
<b>Alignment</b>		
<i>3C-REN Strategic Plan Vision; Portfolio Strategies</i>		
<b>STRATEGIES</b>		
Connect customers with 3C-REN programs as well as CCAs' and other PAs' offerings to deliver holistic, equitable solutions.	Establish compelling, portfolio-wide marketing and education that drive demand for energy efficiency and building decarbonization.	Offer comprehensive services to provide the workforce with the knowledge and skills needed to participate in the advanced energy economy.
<b>Alignment</b>		
<i>Equity segment strategies; Sector strategies and tactics</i>	<i>Market Support segment strategies; Sector strategies and tactics</i>	<i>C&amp;S segment strategies; Cross-cutting WE&amp;T strategies and tactics; all-sector coordination</i>
<b>DESIRED OUTCOMES</b>		
Participation in tailored and existing local energy efficiency programs by hard-to-reach and other populations in the Tri-County Region.	Implementation of projects that result in measurable energy savings, help achieve State and local climate goals, and result in economic development benefits.	A well-trained, supported, and sustainable local workforce with the technical skills and knowledge to offer services in compliance with building codes and State goals.
<b>Alignment</b>		
<i>Portfolio metrics; market support and equity segment metrics and outcomes; sector goals and objectives</i>		

2

3

The tables that follow present 3C-REN’s portfolio, sector, and segment-level metrics. For

4

additional metrics please see Exhibit 3C-REN-03, Appendix B.

1

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## 1. Portfolio-Level Metrics

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**Table 3: 2024-2027 Portfolio Forecasted Cumulative Metrics**

Sector	TSB	TRC	PAC	kWh	kW	Therms	First Year Net Elec CO2e	First Year Net Gas CO2e	Lifecycle Net KWH	Lifecycle Net Therms	Lifecycle Net Electric CO2e	Lifecycle Net Gas CO2e
<b>TOTAL Portfolio<sup>1</sup></b>	<b>39,271,823</b>	<b>0.44</b>	<b>0.62</b>	<b>36,996,011</b>	<b>5,759</b>	<b>675,145</b>	<b>7,285</b>	<b>4,746</b>	<b>481,216,865</b>	<b>10,003,568</b>	<b>166,655</b>	<b>70,460</b>
<sup>1</sup> Portfolio level TSB, TRC, and PAC exclude C&S												

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## 2. Sector-Level Metrics

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**Table 4: 2024-2027 Forecasted Cumulative Metrics by Sector**

Sector	TSB	TRC	PAC	kWh	kW	Therms	First Year Net Elec CO2e	First Year Net Gas CO2e	Lifecycle Net KWH	Lifecycle Net Therms	Lifecycle Net Electric CO2e	Lifecycle Net Gas CO2e
<b>Residential</b>	19,763,278	0.44	0.55	10,946,248	1,833	643,302	2,159	4,559	168,619,706	9,621,459	63,074	68,225
<b>Commercial</b>	19,508,545	0.72	1.95	26,049,763	3,926	31,842	5,126	186	312,597,159	382,110	103,581	2,235
<b>Agricultural</b>	0	0	0	-	-	-	-	-	-	-	-	-
<b>Public</b>	0	0	0	-	-	-	-	-	-	-	-	-
<b>WE&amp;T</b>	0	0	0	-	-	-	-	-	-	-	-	-
<b>C&amp;S</b>				-	-	-	-	-	-	-	-	-
<b>EM&amp;V</b>	0	0	0	-	-	-	-	-	-	-	-	-
<b>TOTAL Portfolio<sup>1</sup></b>	<b>39,271,823</b>	<b>0.44</b>	<b>0.62</b>	<b>36,996,011</b>	<b>5,759</b>	<b>675,145</b>	<b>7,285</b>	<b>4,746</b>	<b>481,216,865</b>	<b>10,003,568</b>	<b>166,655</b>	<b>70,460</b>
<sup>1</sup> Portfolio level TSB, TRC, and PAC exclude C&S												

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### 3. *Segment-Level Metrics*

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**Table 5: 2024-2027 Forecasted Cumulative Metrics by Segment**

Segment	TSB	TRC	PAC	kWh	kW	Therms	First Year Net Elec CO2e	First Year Net Gas CO2e	Lifecycle Net KWH	Lifecycle Net Therms	Lifecycle Net Electric CO2e	Lifecycle Net Gas CO2e
Resource Acquisition	-	-	-	-	-	-	-	-	-	-	-	-
Market Support	-	-	-	-	-	-	-	-	-	-	-	-
Equity	39,271,824	0.54	0.85	36,996,011	5,759	675,145	7,285	4,746	481,216,865	10,003,568	166,655	70,460
Codes & Standards	-	-	-	-	-	-	-	-	-	-	-	-
EM&V	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL Portfolio<sup>1</sup></b>	<b>39,271,824</b>	<b>0.44</b>	<b>0.62</b>	<b>36,996,011</b>	<b>5,759</b>	<b>675,145</b>	<b>7,285</b>	<b>4,746</b>	<b>481,216,865</b>	<b>10,003,568</b>	<b>166,655</b>	<b>70,460</b>
<sup>1</sup> Portfolio level TSB, TRC, and PAC exclude C&S												

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1                   **B.       Portfolio Goals and Performance Metrics**

2                   This section describes how 3C-REN’s guiding portfolio principles align with the portfolio  
3 performance metrics used to measure progress toward identified outcomes. For a full list of metrics  
4 see Exhibit 3C-REN-03, Appendix B: Application Attachment Tables. 3C-REN’s strategic  
5 framework includes the following guiding principles that serve as goals for its overall portfolio:

6                                   **1.    Provide equitable opportunities for hard-to-reach, disadvantaged and**  
7                                   **underserved communities to receive the many benefits offered by more**  
8                                   **energy efficient and resilient homes and buildings**

9                   In 3C-REN’s strategic framework this principle is activated by connecting customers with  
10 program opportunities from its own portfolio as well as CCAs and other PAs’ offerings, as a means  
11 to increase EE program participation by HTR and other customers in the region. Associated  
12 performance metrics track program participation by HTR residential and business customers, as  
13 well as new segment metrics for equity and market support.

14                                   **2.    Be a trusted local resource and communication channel for energy**  
15                                   **efficiency and decarbonization as a means to address the climate crisis**  
16                                   **and build regional resilience**

17                   This principle is activated by establishing compelling, portfolio-wide marketing and  
18 education that catalyzes demand for energy efficiency services and building decarbonization. The  
19 associated desired outcome is implementation of projects that result in measurable energy savings,  
20 accelerate achievement of State and local climate goals, and result in economic development  
21 benefits. 3C-REN will measure its progress with performance metrics related to outreach activities,  
22 savings achievements, as well as equity and market support metrics.

23                                   **3.    Enhance regional economic vitality by growing the market for energy**  
24                                   **projects and developing a local workforce with the expertise and**  
25                                   **resources needed to implement upgrades**

26                   This principle is activated by offering comprehensive services to enable the local  
27 workforce to participate in the advanced energy economy, helping to nurture a well-trained,

1 supported, and sustainable workforce that has the technical skills and knowledge to offer services  
2 that achieve building code and State goals. 3C-REN will measure its progress with metrics relating  
3 to workforce education and training; codes and standards; and market support.

## 4 **V. PORTFOLIO STRATEGIES**

### 5 **A. Savings Forecasting and Quantification Methods**

6 3C-REN's portfolio includes several programs that will achieve quantifiable energy  
7 savings: a commercial sector program focusing on small- and medium-sized businesses; a  
8 residential sector program for single and small multifamily buildings; and a residential sector  
9 program for large multifamily properties. 3C-REN proposes to deploy a diverse mix of new and  
10 existing methods to forecast and quantify savings from its 2024-2027 portfolio, such as normalized  
11 metered energy consumption, energy modeling, measure packages derived from eTRM, and  
12 spreadsheet calculations, as further described below:

13 Normalized Metered Energy Consumption (NMEC): In the single-family residential  
14 demand marketplace program, aggregators receive incentive payments based on Total Project  
15 Value (TPV). TPV tracks the delivered metered load shape and associated savings during the first  
16 12 months of project operation, multiplied by the hourly Program Avoided Costs for the  
17 intervention's useful life, adjusted for free ridership, and the CPUC-codified discount rate.  
18 Program Avoided Costs are based on the CPUC Avoided Cost Calculator multiplied by a factor  
19 assigned by the program as funds allow to serve Market Rate or Hard-to-Reach (HTR) customers.  
20 The minimum load shape value floor for any project is the CPUC Database for Energy-Efficient  
21 Resources (DEER) load shape associated with the primary measure or measure mix. NMEC

1 savings calculations are determined using open-source CalTRACK methods in compliance with  
2 the Population NMEC rulebook.<sup>2</sup>

3 Savings associated with the proposed Commercial program will also be determined  
4 through population-based NMEC, with metered savings tied to compensation. This innovative  
5 pay-for-performance approach incentivizes aggregators, contractors, and implementers to strive  
6 for persistent energy savings and quality installation. 3C-REN's NMEC program designs will  
7 further incentivize projects that deliver savings for residents and businesses designated as hard-to-  
8 reach, DAC, underserved, and ESJ communities.

9 3C-REN will investigate pathways to benchmark facilities that participate in the  
10 Commercial population NMEC program. NMEC also provides the opportunity to learn which  
11 measures secure the greatest savings to influence future projects and program development.

12 Measure Packages: In the Multifamily program, for interventions associated with  
13 delivering active measure packages within the eTRM, those packages will be used as the basis to  
14 determine savings.

15 Energy Simulation Model: In Multifamily projects for which there are measure  
16 opportunities that are not represented in the DEER database, and for which there are no approved  
17 Work Papers, interventions will be modeled in the full version of EnergyPro Non-Res Performance  
18 or in EnergyPro Lite.

19 Spreadsheet Calculations: For Multifamily, in the rare situation in which savings  
20 opportunities are identified for which none of the above methods can be used, spreadsheet  
21 calculations will be performed based on industry standard engineering principals. Supporting

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<sup>2</sup> Methods can be found at <https://www.caltrack.org/>

1 documentation, such as specific sections of ASHRAE Fundamentals, Energy Management  
2 Handbook, case studies, and other widely used industry resources will be referenced in  
3 calculations.

4 **B. Strategy for Incorporating Low Global Warming Potential (Low-GWP)**  
5 **Refrigerants**

6 The technological and regulatory landscape continues to evolve around low global  
7 warming potential (low-GWP) refrigerants. One of the most popular low-GWP refrigerant options  
8 for residential systems, R-32, was recently re-evaluated and determined to have a GWP higher  
9 than the regulatory cut-off of 750 (previously 675, now 771 GWP). Reversible CO2 (R-744, 1  
10 GWP) heat pumps are still a long way off, as the compression required for a cooling cycle is more  
11 than typical heat pump compressors can provide. The most promising and lowest GWP refrigerants  
12 are flammable (such as propane (R-290, 0.02 GWP)) or toxic (such as ammonia (R-717, 0 GWP)).

13 3C-REN is well-positioned to implement programmatic and educational strategies to  
14 develop a better understanding of the safety and technology challenges and opportunities related  
15 to alternative low GWP refrigerants. 3C-REN activities could include, but not necessarily be  
16 limited to, training installers on safe work practices associated with flammable/toxic refrigerants,  
17 educating homeowners and property owners about the pros and cons of refrigerant options, and  
18 incentivizing specific low GWP refrigerants once the technology is proven safe and effective. 3C-  
19 REN will consider likely technical constraints of low GWP equipment when recommending  
20 upgrades to provide a level of future proofing for the next equipment replacement cycle.

21 Training programs for installers could include, but not necessarily be limited to,  
22 demonstrations, online-hosted guidance, and forums where contractors and manufacturers can  
23 convene to ask questions and share best practices. These approaches could be coordinated with

1 3C-REN’s codes and standards program and statewide initiatives to offer educational resources to  
2 installers and customers.

3 3C-REN will monitor the evolution of regulatory, safety, and efficiency standards for low-  
4 GWP refrigerants and incorporate the latest guidance into cross-cutting workforce education and  
5 training and codes and standards programs. Training activities can be tailored to provide an  
6 additional focus on small or disadvantaged local businesses. These approaches will help build the  
7 market for low GWP refrigerants.

8 **C. Strategies for Spurring Innovation**

9 For its 2024-2027 portfolio, 3C-REN proposes two primary strategies for spurring  
10 innovation:

11 Market access program model: This model incentivizes cost-effective measured and  
12 delivered demand flexibility. Rather than mandating specific interventions or project types like in  
13 traditional energy efficiency programs, this approach encourages market actors to develop their  
14 own innovative business models with technologies that deliver demand flexibility in creative ways.  
15 For program years 2024-2027, 3C-REN will expand this strategy from its single-family residential  
16 program to serve the commercial sector, focusing on small- and medium-sized businesses.

17 This model significantly reduces administrative burden for participating aggregators  
18 through components such as automated enrollment, meter-based savings tracking, and access to  
19 the market without arduous request-for-proposal (RFP) processes. New market actors can enter  
20 the program with minimal friction, leading to increased innovation and competition to provide  
21 customers with the most value. Market participants are encouraged to align solutions with total  
22 systems benefits as incentives are directly based on the avoided cost curve value delivered.

1 By positioning buildings to support the grid with dynamic load reduction, with rewards for  
2 those responses, this model could unlock energy storage options, making the buildings more  
3 energy resilient with the integration of controls that optimize energy use.

4 Comprehensive load management: In the listening sessions held by 3C-REN to inform this  
5 filing stakeholders emphasized the need for assistance with comprehensive projects to improve  
6 resiliency.<sup>3</sup> This need was further re-enforced during one-on-one meetings with property owners  
7 conducted by Santa Barbara County during implementation of the Energy Assurance Program  
8 (EAP), which provides technical assistance with California Energy Commission funding. 3C-REN  
9 proposes to expand EAP to serve all three counties, thereby delivering a cross-cutting program  
10 that serves commercial and public sector facilities with an innovative focus on comprehensive load  
11 management.

12 This program model holistically evaluates a facility’s need for energy efficiency and other layered  
13 solutions to improve resiliency, with a special focus on critical facilities and community-serving  
14 buildings. This approach will encourage innovative projects that go beyond “low hanging fruit” to  
15 deliver comprehensive and creative solutions. The expanded Energy Assurance Program can also  
16 connect the dots between building needs and demand-response providers by highlighting  
17 opportunities that make sense for certain community resources. Those facilities can then take  
18 advantage of 3C-REN’s commercial NMEC offering.

19 **D. Strategies for Market Intervention and Energy Efficiency Adoption**

20 As local government representatives REN program administrators are uniquely positioned  
21 to implement tailored market intervention strategies and spur energy efficiency adoption. 3C-REN

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<sup>3</sup> 3C-REN Business Plan Listening Sessions: Public Sector, July 2021.

1 and its member counties are in close relationship with their communities, with an ear to  
2 stakeholders' needs and associated ability to identify equitable delivery channels and tactics.

3 3C-REN proposes market intervention strategies that include market access platform,  
4 strategic partnerships, and comprehensive technical assistance.

5 Market access platform for demand flexibility: Through the market access program model  
6 discussed in the previous section, 3C-REN will employ a demand flexibility platform that engages  
7 a broad range of solutions offered by suppliers. The platform is based on open-source transparent  
8 measurements using CalTRACK 2.0 and OpenEEmeter and encourages cost-effective,  
9 competitive solutions that are product, technology, and business model agnostic.

10 Strategic partnerships: Partnering with community-based organizations (CBOs), local  
11 government agencies, and industry leaders is an integral part of 3C-REN's approach to energy  
12 efficiency program delivery. Local governments and CBOs have key insights into the needs of the  
13 HTR, underserved, DAC, and ESJ communities they represent and serve.

14 3C-REN engages strategic partnerships not just for implementation and outreach but at the  
15 outset of ideation and design, so that programs are purpose-built to provide recipients with relevant  
16 solutions. For example, 3C-REN is worked with Promotores to connect Spanish-speaking  
17 communities to household energy-saving services. Jurisdiction staff across the Tri-County Region  
18 attended listening sessions as part of this effort, and trainers from a local firm (In Balance Green  
19 Consulting) effectively recruited participants to attend 3C-REN's educational events.

20 Comprehensive technical assistance: During 3C-REN's listening sessions to inform its  
21 direction for 2024 and beyond, a persistent theme that emerged was the need for comprehensive

1 technical assistance.<sup>4</sup> Stakeholders in numerous sectors wanted help navigating the energy  
2 efficiency landscape, to understand their facility’s energy use, weigh program and funding  
3 opportunities, support decision-making and procurement, and manage projects through the  
4 installation process.

5 As a trusted local partner, 3C-REN is ideally positioned to provide comprehensive  
6 technical assistance to agricultural customers, residential multifamily property owners,  
7 commercial customers, and cross-cutting commercial and public facilities that shepherds them  
8 through all phases of the project lifecycle. Through this approach 3C-REN can encourage deeper  
9 retrofits and more holistic projects, rather than one-off installations, to benefit the customer and  
10 the grid. Along the way 3C-REN will garner a better understanding of where gaps exist that can  
11 then inform future program development.

12 Packaging and layering benefits: A diverse mix of solutions is needed to achieve state and  
13 local goals for resiliency, decarbonization, energy security, pollution reduction, and climate  
14 change mitigation. Ratepayer-funded energy efficiency programs are an important piece of the  
15 puzzle.

16 In D.21-11-002 CPUC established guiding principles to layer incentives from building  
17 energy efficiency and decarbonization programs, creating the groundwork to stack benefits as a  
18 means to ease the cost burden for customers wishing to pursue decarbonization measures. It also  
19 highlights the need for better coordination among program administrators.

20 The layering model has proven effective. For example, 3C-REN joined a project that  
21 brought together incentives from Energy Savings Assistance Program (ESAP) and 3C-REN Home

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<sup>4</sup> 3C-REN Business Plan Listening Sessions, July 2021.

1 Energy Savings to provide energy efficiency upgrades, as well as Low-Income Weatherization  
2 Program (LIWP) to install solar for holistic energy upgrades for multiple farmworker housing  
3 sites. Without this collaborative program layering the project likely would not have been  
4 completed.

5 In addition to emphasizing collaboration among ratepayer-funded EE program  
6 administrators, D.21-11-002 encouraged PAs to “coordinate with entities and programs outside  
7 the Commission's jurisdiction as appropriate, consistent with these guiding principles.” This type  
8 of coordination and packaging of benefits from different funding sources has been a key part of  
9 3C-REN’s portfolio since its inception.<sup>5</sup> Going forward into program year 2024 and beyond, 3C-  
10 REN will continue to develop innovative approaches to layer benefits for customers. Those  
11 funding sources could include, but are not limited to:

- 12 • Department of Energy, Federal Emergency Management Agency and other Federal
- 13 sources
- 14 • Revolving loan fund initiatives
- 15 • State bonding authority
- 16 • Community Choice Energy (CCE) funding
- 17 • Cap and trade funding
- 18 • Foundations and trusts
- 19 • Nonprofit support

20 3C-REN can help connect the dots between benefits and opportunities that are available at  
21 different scales (e.g., individual buildings, neighborhoods, cities and counties). With its expanded

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<sup>5</sup> 2018-2025 3C-REN Residential Energy Efficiency Business Plan, “Leveraging Other Funding,” p.20-21.

1 portfolio serving stakeholders in residential, commercial, agricultural and public sector markets,  
2 3C-REN will be able to encourage transformative solutions for energy efficiency, resiliency, and  
3 decarbonization across the region.

4 **VI. APPLICATION SUMMARY TABLES**

5 This section presents 3C-REN’s application summary tables covering the four-year budget  
6 request for program years 2024 through 2027.

**A. Annual Budget Request**

The table below shows 3C-REN’s annual budget request for the four-year portfolio plan.

**Table 6: Annual Budget Request, 2024-2027**

Budget	2024	2025	2026	2027	Portfolio Plan Budget 2024-2027	Strategic Plan Budget 2024-2031
PROGRAM BUDGETS						
Agriculture Technical Assistance	714,806	744,819	772,707	803,102	3,035,434	6,538,938
Building Performance Training	2,087,734	2,217,373	2,406,678	2,728,040	9,439,825	21,340,806
Energy Assurance Services	394,162	394,528	494,910	495,306	1,778,906	3,939,661
Commercial Marketplace	2,401,251	2,464,141	2,544,871	2,605,030	10,015,293	21,379,645
Single Family Home Energy Savings	4,704,816	4,962,011	5,025,989	5,079,575	19,772,391	41,931,865
Multifamily Home Energy Savings	3,747,708	3,972,483	4,203,660	4,727,469	16,651,320	37,274,745
Energy Code Connect	1,861,967	1,905,918	2,005,263	2,046,473	7,819,621	16,747,290
<b>Subtotal</b>	<b>15,912,444</b>	<b>16,661,273</b>	<b>17,454,078</b>	<b>18,484,995</b>	<b>68,512,790</b>	<b>149,152,950</b>
EVALUATION, MEASUREMENT AND VERIFICATION (EM&V)						
3C-REN	182,330	190,910	199,995	211,807	785,042	1,709,044
CPUC	480,688	503,309	527,259	558,401	2,069,657	4,505,662
<b>Subtotal</b>	<b>663,018</b>	<b>694,219</b>	<b>727,254</b>	<b>770,208</b>	<b>2,854,699</b>	<b>6,214,706</b>
TOTAL BUDGET (INCLUDING EM&V)						
<b>Total</b>	<b>16,575,462</b>	<b>17,355,492</b>	<b>18,181,331</b>	<b>19,255,203</b>	<b>71,367,488</b>	<b>155,367,656</b>

1 **B. Distribution of Budget across Segments and Sectors**

2 In accordance with direction from CPUC in D.21-05-031, 3C-REN has segmented its  
3 portfolio and will offer equity segment programs focusing on hard-to-reach, Environmental and  
4 Social Justice (ESJ) communities, DACs, and underserved customers in the residential single  
5 family, multifamily, and commercial markets. This approach aligns with 3C-REN’s commitment  
6 to increase diversity, equity, inclusion, and justice in all aspects of its work, and is congruent with  
7 3C-REN’s mission to deliver energy efficiency services to HTR and other vulnerable and under-  
8 resourced communities.

9 3C-REN distributes its portfolio budget forecast across segments and sectors in alignment  
10 with broader portfolio objectives, as described in Exhibit 1 Strategic Business Plan 2024-2031.  
11 Six of the seven proposed programs serve underserved and hard to reach customers across the  
12 commercial, residential, and agricultural business sectors. The focus on equity and market support  
13 programs allows 3C-REN to concentrate its efforts and budget on highest need areas that are  
14 difficult to serve cost effectively. Additionally, 3C-REN chose to launch new proposed programs  
15 based on needs identified by stakeholders through regulatory processes and community  
16 engagement.

17 **Table 7: Distribution of Budget (\$) Across Segments**

Segment	2024	2025	2026	2027	Total	% of Total
Resource Acquisition	-	-	-	-	-	0%
Market Support	3,196,702	3,356,720	3,674,295	4,026,448	14,254,165	21%
Equity	10,853,775	11,398,635	11,774,520	12,412,074	46,439,004	68%
Codes & Standards	1,861,967	1,905,918	2,005,263	2,046,473	7,819,621	11%
<b>Total</b>	<b>15,912,444</b>	<b>16,661,273</b>	<b>17,454,078</b>	<b>18,484,995</b>	<b>68,512,790</b>	<b>100%</b>

1 **Table 8: Distribution of Budget (\$) Across Sectors**

Sector	2024	2025	2026	2027	Total	% of Total
Agriculture	714,806	744,819	772,707	803,102	3,035,433	4%
Commercial	2,401,251	2,464,141	2,544,871	2,605,030	10,015,294	15%
Residential	8,452,524	8,934,494	9,229,649	9,807,044	36,423,712	53%
Cross-Cutting	4,343,863	4,517,819	4,906,850	5,269,819	19,038,351	28%
<b>Total</b>	<b>15,912,444</b>	<b>16,661,273</b>	<b>17,454,078</b>	<b>18,484,995</b>	<b>68,512,790</b>	<b>100%</b>

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3 **C. Projected Sector-Level and Portfolio-Level Cost Effectiveness**

4 3C-REN’s forecasted portfolio Total Resource Cost (TRC) and forecasted Portfolio  
 5 Administrator Cost (PAC) are detailed in the table below.

6 **Table 9: Forecasted TRC and PAC (2024-2027)**

Sector	PY 2024		PY 2025		PY 2026		PY 2027	
	Forecast TRC	Forecast PAC						
Agricultural	-	-	-	-	-	-	-	-
Commercial	0.66	1.50	0.69	1.56	0.74	2.35	0.79	2.50
Cross-Cutting	-	-	-	-	-	-	-	-
Residential	0.40	0.51	0.41	0.51	0.45	0.56	0.48	0.62
Portfolio	0.41	0.56	0.42	0.57	0.48	0.72	0.50	0.76

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8 **D. Total System Benefit (TSB) and Savings**

9 3C-REN’s forecasted portfolio Total System Benefits (TSB) and savings are detailed in  
 10 the tables below.

11 **Table 10: Forecasted TSB (2024-2027)**

Sector	PY 2024	PY 2025	PY 2026	PY 2027
Agricultural	-	-	-	-
Commercial	\$3,531,115	\$3,755,490	\$5,862,535	\$6,359,405
Cross-Cutting	-	-	-	-
Residential	\$4,196,258	\$4,483,050	\$5,098,949	\$5,985,021
Portfolio	\$7,727,373	\$8,238,540	\$10,961,484	\$12,344,426

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1 **Table 11: Forecasted Energy Savings (2024-2027)**

Sector	Net kWh	Net kW	Net Therm	First Year Net Elec CO2e	First Year Net Gas CO2e
<b>2024</b>					
Agricultural	-	-	-	-	-
Commercial	5,071,027.00	761.00	8,250.00	1,075.67	48.26
Cross-Cutting	-	-	-	-	-
Residential	2,512,200.00	431.00	148,631.00	499.47	1,049.65
<b>Portfolio</b>	<b>7,583,227.00</b>	<b>1,192.00</b>	<b>156,881.00</b>	<b>1,575.13</b>	<b>1,097.91</b>
<b>2025</b>					
Agricultural	-	-	-	-	-
Commercial	5,151,054.00	775.00	7,751.00	866.99	45.34
Cross-Cutting	-	-	-	-	-
Residential	2,542,494.00	445.00	151,279.00	457.91	1,065.14
<b>Portfolio</b>	<b>7,693,548.00</b>	<b>1,220.00</b>	<b>159,030.00</b>	<b>1,324.90</b>	<b>1,110.48</b>
<b>2026</b>					
Agricultural	-	-	-	-	-
Commercial	7,819,505.00	1,181.00	7,826.00	1,603.63	45.78
Cross-Cutting	-	-	-	-	-
Residential	2,763,283.00	466.00	162,693.00	568.26	1,151.93
<b>Portfolio</b>	<b>10,582,788.00</b>	<b>1,646.00</b>	<b>170,520.00</b>	<b>2,171.89</b>	<b>1,197.71</b>
<b>2027</b>					
Agricultural	-	-	-	-	-
Commercial	8,008,177.00	1,209.00	8,015.00	1,579.73	46.89
Cross-Cutting	-	-	-	-	-
Residential	3,128,272.00	493.00	180,698.00	633.05	1,292.54
<b>Portfolio</b>	<b>11,136,449.00</b>	<b>1,702.00</b>	<b>188,714.00</b>	<b>2,212.79</b>	<b>1,339.42</b>

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**CHAPTER 2. FORECAST METHODOLOGY (A. TELLEZ AND N. BARBA)**

**I. DEMONSTRATION OF REASONABLENESS**

In this chapter 3C-REN presents its forecast methodology for the four-year portfolio cycle, 2024-2027,<sup>6</sup> and includes a description of its zero-based budgeting approach. 3C-REN requests that the Commission approve its four-year total budget cap request for 2024-2027 of \$71,367,489, which includes \$2,854,699 in EM&V funds.

Under D. 21-05-031<sup>7</sup> program administrators submitting a business portfolio plan application were directed to use “Zero-based” budgeting, meaning that “all expenses must be justified for each year of the new four-year period, after analyzing each function within the budget for its needs and costs.”

For the budget forecast, 3C-REN relied on outcomes from competitively solicited contracts, known and forecasted vendor costs, and 3C-REN’s program staffing plans of its partner agencies.<sup>8</sup> Additionally, 3C-REN worked with its vendors to forecast budgets and savings for future years. Though currently contracted implementers and vendors were consulted to inform forecasted budgets and savings, that engagement does not ensure that they will continue serve as contracted vendors, a determination that will be informed by their performance and realized program savings.

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<sup>6</sup> 3C-REN presents the complete eight-year budget for the Energy Efficiency 2024-2031 Strategic Business Plan in Chapter 5 of Exhibit 1.

<sup>7</sup> D. 21-05-031, p. 34.

<sup>8</sup> 3C-REN is a partnership between the Counties of San Luis Obispo, Santa Barbara and Ventura.

1 The tables in this section present program cost detail in four ways: (1) portfolio cost by  
 2 cost category; (2) annual cost for competitively solicited programs; (3) annual cost for programs  
 3 that have vendors that support program implementation under 3C-REN’s direction; and (4) annual  
 4 cost for new programs.

5 **A. Annual Cost Forecast by Cost Category**

6 In the table below, 3C-REN presents a breakdown of forecast expenditures by cost category  
 7 in accordance with the Energy Efficiency Policy Manual.<sup>9</sup>

8 **Table 12: Summary of Cost (\$) Forecast by Cost Category**

Cost Category	2024	2025	2026	2027	Total	% of Total
<b>Admin</b>	686,679	706,817	745,700	770,511	2,909,707	<b>4%</b>
<b>Marketing</b>	377,332	380,004	382,769	385,631	1,525,736	<b>2%</b>
<b>Direct Implementation - Non Incentives</b>	8,356,420	8,841,812	9,346,033	9,964,301	36,508,566	<b>51%</b>
<b>Direct Implementation - Incentives</b>	6,492,013	6,732,640	6,979,576	7,364,552	27,568,781	<b>39%</b>
<b>Programs Total</b>	<b>15,912,444</b>	<b>16,661,273</b>	<b>17,454,078</b>	<b>18,484,995</b>	<b>68,512,790</b>	
<b>EM&amp;V (CPUC and 3C-REN)</b>	663,018	694,220	727,253	770,208	2,854,699	<b>4%</b>
<b>Total Portfolio w/ EM&amp;V</b>	<b>16,575,462</b>	<b>17,355,493</b>	<b>18,181,331</b>	<b>19,255,203</b>	<b>71,367,489</b>	<b>100%</b>

9

10 **B. Annual Cost Forecast for Competitively Solicited Programs**

11 Programs for which implementers and vendors were selected through a competitive process  
 12 and supported cost and savings forecast are as follows:

13

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<sup>9</sup> Energy Efficiency Policy Manual, Version 6 April 2020, <https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/e/6442465683-ee-policy-manual-revised-march-20-2020-b.pdf>.

1 **Table 13: Competitively Solicited Programs Annual Cost (\$)**

Program ID	Program Name	2024	2025	2026	2027	Total
TCR-Res-003	Single Family Home Energy Savings	4,704,816	4,962,011	5,025,989	5,079,575	19,772,391
TCR-Res-002	Multifamily Home Energy Savings	3,747,708	3,972,483	4,203,660	4,727,469	16,651,320
TCR-CS-001	Energy Code Connect	1,861,967	1,905,918	2,005,263	2,046,473	7,819,621
<b>Total Cost</b>		<b>10,314,491</b>	<b>10,840,412</b>	<b>11,234,912</b>	<b>11,853,517</b>	<b>44,243,332</b>

2

3 **C. Annual Cost Forecast for Programs Implemented by 3C-REN with**  
 4 **Vendor Support**

5 The Building Performance Training (WE&T) program forecast includes the cost of  
 6 trainers, suppliers, curriculum development vendors, and other implementation support. The cost  
 7 forecast for this program is comprised of a combination of vendor contracts and 3C-REN staffing  
 8 for program implementation.

9 **Table 14: Building Performance Training Annual Cost (\$)**

Cost Description	2024	2025	2026	2027	Total
<b>Vendors and materials*</b>	1,582,723	1,695,215	1,863,859	2,163,719	7,305,516
<b>3C-REN Program Implementation</b>	445,705	461,073	479,290	498,251	1,884,319
<b>3C-REN Portfolio Administration</b>	59,306	61,085	63,529	66,070	249,990
<b>Total Cost</b>	<b>2,087,734</b>	<b>2,217,373</b>	<b>2,406,678</b>	<b>2,728,040</b>	<b>9,439,825</b>
*Vendors include educators, trainers, conferences and seminars, travel, memberships and dues, marketing, sponsorships, CivicSpark fellows and other miscellaneous expenses.					

10

11 **D. Annual Cost Forecast for New Programs**

12 For the three new programs proposed in this portfolio plan, 3C-REN estimated cost based  
 13 on the level of staffing and vendor support anticipated for program delivery.

1 **Table 15: Agriculture Technical Assistance Annual Cost (\$)**

Cost Description	2024	2025	2026	2027	Total
Vendors*	239,000	249,400	255,440	262,984	1,006,824
3C-REN Program Implementation	407,338	424,805	443,829	463,742	1,739,713
3C-REN Portfolio Administration	68,468	70,614	73,438	76,376	288,896
<b>Total Cost</b>	<b>714,806</b>	<b>744,819</b>	<b>772,707</b>	<b>803,102</b>	<b>3,035,433</b>
*Vendors include technical assistance providers, CivicSpark fellows, marketing and outreach, travel, and other miscellaneous expenses.					

2

3 **Table 16: Commercial Marketplace Annual Cost (\$)**

Cost Description	2024	2025	2026	2027	Total
Vendors*	589,000	601,400	618,840	627,024	2,436,264
Incentives	1,396,076	1,432,640	1,479,576	1,514,552	5,822,845
3C-REN Program Implementation	347,707	359,487	373,017	387,078	1,467,289
3C-REN Portfolio Administration	68,468	70,614	73,438	76,376	288,896
<b>Total Cost</b>	<b>2,401,251</b>	<b>2,464,141</b>	<b>2,544,871</b>	<b>2,605,030</b>	<b>10,015,293</b>
*Vendors include an NMEC commercial program implementer, green business partnerships, sponsorships, marketing and outreach, travel and other miscellaneous expenses.					

4

5 **Table 17: Energy Assurance Services Annual Cost (\$)**

Cost Description	2024	2025	2026	2027	Total
Vendors*	385,000	385,000	485,000	485,000	1,740,000
3C-REN Portfolio Administration	9,162	9,528	9,910	10,306	38,906
<b>Total Cost</b>	<b>394,162</b>	<b>394,528</b>	<b>494,910</b>	<b>495,306</b>	<b>1,778,906</b>
*Vendors include technical assistance providers, CivicSpark fellows, marketing and outreach, travel, and other miscellaneous expenses.					

6

1           **II. PROGRAM MODIFICATIONS FROM 2023 PORTFOLIO**

2           3C-REN proposes to add three new programs to its 2023 portfolio. No categorization  
3 changes or significant budget shifts are recommended nor existing programs discontinued.

4           **Table 18: New Programs Proposed in this Application**

Program ID	Program Name	Sector	Segment
TCR-Ag-001	Agriculture Technical Assistance	Agriculture	Market Support
TCR-Com-001	Commercial Marketplace	Commercial	Equity
TCR-CC-001	Energy Assurance Services	Cross-cutting	Market Support

5  
6           **III. PORTFOLIO ADMINISTRATION VS PROGRAM IMPLEMENTATION**  
7           **COSTS**

8           3C-REN’s methodology for distributing costs between portfolio administration and  
9 program implementation utilizes the terms as defined in D.21-05-031<sup>10</sup>:

10           **Program Implementation Costs:** All costs associated with delivering a program.  
11 With the use of 3rd party implementers, this is very straightforward; all costs  
12 associated with contracts for efficiency programs is program implementation.  
13 Should the PA [program administrator] be in the role of implementation, the PA  
14 should clearly identify all costs associated with that program. This should NOT be  
15 some level of “rule of thumb” allocations. PA employee time (including account  
16 reps) should be booked directly to a specific program being implemented in a  
17 manner that can be audited for accuracy. The PA could propose methods for  
18 tracking things like traditional “overhead” (such as rent, or IT [information  
19 technology] services) in a manner that appropriately links to employee charged  
20 time.

21  
22           **Portfolio Administration (i.e., Overhead):** Everything else not in Program  
23 Implementation. Costs for things like managing a solicitation, negotiating a  
24 contract, and reviewing/paying invoices all are part of Administration (this should  
25 not be put into the “implementation” bucket).  
26

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<sup>10</sup> D.21-05-031 pp 32-33.

1           Based on the types of work performed or direct cost incurred, each cost was allocated to  
2 either Program Implementation or Portfolio Administration. 3C-REN forecasts its budget based  
3 on estimated staffing needs, direct expenditures and present and future contracts. All costs are  
4 allocated to one of four categories as defined in the EE Policy Manual<sup>11</sup>: administrative; marketing  
5 and outreach; direct implementation non-incentive; and EM&V.

6           3C-REN functions and activities associated with “Portfolio Administration” include: (1)  
7 regulatory activities not associated with a single program; (2) attorney costs associated with  
8 regulatory procedures, such as submittal of this testimony and filing comments on rulings and  
9 decisions with direct or indirect implications to 3C-REN; (3) labor associated with budgeting,  
10 invoice review and approval, managing solicitations, and contract negotiations.

11           Activities that support and can be attributed directly to a specific program are categorized  
12 “Program Implementation Costs” per the CAEECC categorization.

13           The following table provides the details of “Program Implementation” and “Portfolio  
14 Administration” costs per portfolio plan program.

15

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<sup>11</sup> EE Policy Manual, version 6, Appendix C: Cost Categories and Related Cap and Targets April 2020.

1 **Table 19: Program Implementation and Program Administration Per Program**

Program ID	Program Name	Cost Category	Amount (\$) by Program Year				Portfolio Plan Budget (\$)
			2024	2025	2026	2027	
TCR-Ag-001	Agriculture Technical Assistance	Program Implementation	646,338	674,205	699,269	726,726	2,746,537
		Portfolio Administration	68,468	70,614	73,438	76,376	288,896
TCR-WET-001	Building Performance Training	Program Implementation	1,968,428	2,095,088	2,275,701	2,593,224	8,932,441
		Portfolio Administration	119,306	122,285	130,977	134,816	507,384
TCR-CC-001	Energy Assurance Services	Program Implementation	385,000	385,000	485,000	485,000	1,740,000
		Portfolio Administration	9,162	9,528	9,910	10,306	38,906
TCR-Com-001	Commercial Marketplace	Program Implementation	2,332,783	2,393,527	2,471,433	2,528,654	9,726,397
		Portfolio Administration	68,468	70,614	73,438	76,376	288,896
TCR-Res-003	Single Family Home Energy Savings	Program Implementation	4,630,163	4,885,269	4,944,276	4,995,295	19,455,002
		Portfolio Administration	74,653	76,743	81,712	84,281	317,389
TCR-Res-002	Multifamily Home Energy Savings	Program Implementation	3,673,055	3,895,740	4,121,948	4,643,188	16,333,932
		Portfolio Administration	74,653	76,743	81,712	84,281	317,388
TCR-CS-001	Energy Code Connect	Program Implementation	1,742,661	1,783,633	1,874,286	1,911,657	7,312,237
		Portfolio Administration	119,306	122,285	130,977	134,816	507,384

2

3

1           **CHAPTER 3.    SEGMENTATION STRATEGY (A. WATKINS AND N. BARBA)**

2           **I.    STRATEGIES DRIVING DISTRIBUTION OF BUDGET AMONG**  
3           **SEGMENTS**

4           3C-REN’s segment-specific strategies that underpin preliminary budget distribution are  
5 informed by regional needs and aligned with broader portfolio objectives and CPUC guidance.  
6 3C-REN’s Strategic Business Plan and 2024-2027 Portfolio Plan follow a strategic framework that  
7 reflects three overarching principles, tactics, and desired outcomes: provision of equitable EE  
8 opportunities to HTR, DAC, and underserved communities; serving as a trusted resource for EE  
9 and decarbonization communications; and supporting the local workforce to participate in the  
10 advanced energy economy. According to Commission guidance in D.21-05-031, non-REN  
11 program administrators can spend no more than 30 percent of their portfolio budget on equity and  
12 market support programs. RENS are exempted from this limitation as the CPUC explained,

13           RENS, by their nature and primary purposes, are more likely to have a greater share  
14 of their portfolio devoted to market support and/or equity programs. Therefore,  
15 those portions of their budgets will not be subjected to an up-front limitation.<sup>12</sup>  
16

17           3C-REN has segmented its portfolio in accordance with its overall strategic framework,  
18 and in alignment with CPUC direction regarding RENS’ unique ability to dedicate a greater portion  
19 of their budget to market support and equity programs, as shown in the table below.  
20

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<sup>12</sup> D.21-05-031, p. 23.

1

2 **Table 20: Segmentation Strategy: Preliminary Distribution of Budget**

Segment	2024	2025	2026	2027	Total	% of Total
Resource Acquisition	-	-	-	-	-	0%
Market Support	3,196,702	3,356,720	3,674,295	4,026,448	14,254,165	21%
Equity	10,853,775	11,398,635	11,774,520	12,412,074	46,439,004	68%
Codes & Standards	1,861,967	1,905,918	2,005,263	2,046,473	7,819,621	11%
<b>Total</b>	<b>15,912,444</b>	<b>16,661,273</b>	<b>17,454,078</b>	<b>18,484,995</b>	<b>68,512,790</b>	<b>100%</b>

3

4 **II. CODES & STANDARDS**

5 In D.21-05-031, the CPUC outlined requirements for program administrators to segment  
6 their portfolios into resource acquisition, market support, or equity programs, based on the primary  
7 program objective, and noted that codes and standards (C&S) would remain separate, as  
8 established in D.12-05-015.<sup>13</sup> In recent years C&S activity has been a significant driver of energy  
9 efficiency achievements towards the State’s aspirations, such as SB 350’s goal to double energy  
10 efficiency by 2030. The CEC’s 2019 California Energy Efficiency Action Plan states that “savings  
11 from the IOU portfolio are increasingly coming from codes and standards as low-hanging fruit  
12 from lighting programs are depleted.”<sup>14</sup> However, both the EE Action Plan and most recent  
13 Integrated Energy Policy Report (IEPR) indicate that the State will not meet its SB 350 goal  
14 through a “business as usual” approach. New and expanded program investments, and more

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<sup>13</sup> D.21-05-031 at 16.

<sup>14</sup> EE Action Plan at 50

1 spirited program activity will be required—including, specifically, associated with codes and  
2 standards.<sup>15</sup>

3 3C-REN’s approach to the C&S segment of its 2024-2027 portfolio expands on the  
4 successful foundation of its existing Energy Code Connect or “ECC” program. 3C-REN began  
5 offering its ECC program in 2019, with an initial focus on regional forums and locally-focused  
6 training courses, expanding in 2020 to provide technical assistance delivered by Energy Code  
7 Coaches. In the first few years of ECC program delivery, 3C-REN has established itself as a trusted  
8 information source and convenor of expert resources to assist market actors to better understand  
9 and comply with building energy codes and standards.

10 Since the ECC program launched, 3C-REN has coordinated with the CEC, Statewide  
11 Codes and Standards Team, and Energy Code Ace. 3C-REN has invested in effective software  
12 integration and automation to support program outreach and program metrics tracking. Year over  
13 year 3C-REN increased its outreach and engagement with local jurisdictions and partner  
14 organizations on both sides of the permit counter, building department staff and professionals,  
15 even as the COVID-19 pandemic upended program processes. Exemplifying the level of trust  
16 established since ECC was launched, the County of Ventura Building & Safety Department  
17 collaborated with 3C-REN to develop model energy-code compliance documents for accessory  
18 dwelling units.

19 Stakeholder engagement has been a key focus of 3C-REN to ensure the program  
20 productively evolves and is directly informed by regional market needs. Program participant  
21 feedback has consistently reinforced two important points: 1) participants greatly appreciate

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<sup>15</sup> “In addition, the state needs to increase levels of codes and standards compliance to achieve and build upon estimated savings.” EE Action Plan at 5.

1 program events and tailored support; and 2) participants want ongoing and expanded support to  
2 stay ahead of energy code updates and bring increased awareness to emerging technologies and  
3 building practices.

4 For example, in a September 2021 ECC post-training survey, an event attendee indicated  
5 that ECC training “content was excellent” and requested additional workshops covering  
6 commercial heat pump water heater split systems. Another attendee stated, “Well done slides –  
7 good technical content clearly explained,” and asked for additional workshop content focusing on  
8 power outage resiliency for all-electric residential.<sup>16</sup>

9 In 2024 and beyond, 3C-REN will continue to be responsive to stakeholder feedback,  
10 delivering timely and relevant content on the relationship between the energy code and emerging  
11 technologies and trends. 3C-REN will build on established partnerships and expand its focus to  
12 include reach code support to local jurisdictions, to encourage even greater savings from C&S  
13 energy efficiency.

14 ECC, in tandem with 3C-REN's Workforce Education & Training (WE&T) program, will  
15 continue its equity-based focus on disadvantaged workers, building relationships with  
16 organizations like local workforce investment boards and ensuring program accessibility to  
17 jurisdictions of all sizes. Although C&S is a separate and distinct segment, 3C-REN is committed  
18 to expanding equity and market support across its portfolio. The ECC program’s ability to improve  
19 code compliance and secure higher energy efficiency savings is essential to achieving 3C-REN  
20 and State goals.

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<sup>16</sup> 3C-REN Energy Code Connections Post-Training Survey results, September 2021.

1 For additional detail on the ECC program, please refer to the cross-cutting sector  
2 subsection on the C&S program.

3 **A. Preliminary Distribution of Codes and Standards Budget**

4 3C-REN’s preliminary distribution of the codes and standards budget is shown in the table  
5 that follows. The rationale for 3C-REN’s funding allocation for this segment is based on  
6 continuing and expanding its existing codes and standards program activities.

7 **Table 21: Codes and Standards Segment: Preliminary Distribution of Budget**

Program	2024	2025	2026	2027	% of Segment Total
Energy Code Connect	1,861,967	1,905,918	2,005,263	2,046,473	100
<b>Total Codes and Standards Segment</b>	<b>1,861,967</b>	<b>1,905,918</b>	<b>2,005,263</b>	<b>2,046,473</b>	<b>100</b>

8

9 **B. Codes and Standards Strategies, Goals, and Outcomes**

10 3C-REN’s codes and standards strategies, goals, and outcomes directly correlate with its  
11 overall strategic framework as presented in Exhibit 01: Strategic Business Plan.

12 Strategy: Offer comprehensive services to provide the local workforce with the knowledge  
13 and skills needed to participate in the advanced energy economy through increased code  
14 compliance.

15 Goal: Nurture local workforce and regional economic vitality by implementing code  
16 compliant energy upgrades for the tri-counties by the tri-counties.

17 Outcome: Sustain a well-trained local workforce with the technical skills and knowledge  
18 to offer services compliant with building codes and State goals.

19 **C. Projected Codes and Standards Annual Metrics**

20 For a full list of metrics see Appendix B, Tabs 17 and 18.2. Select metrics for Codes and  
21 Standards include the following:

1           • Number and percent of jurisdictions with staff participating in an Energy Policy  
2           Forum

3           • Number and percent of jurisdictions receiving Energy Policy technical assistance

4           **D.       Codes and Standards Coordination**

5           3C-REN will coordinate its codes and standards segment program activities with other  
6 program administrators as well as agencies and organizations serving the same customers and  
7 market sectors. For additional details see the cross-cutting codes and standards subsector  
8 coordination.

9           **III. MARKET SUPPORT**

10          As defined by CPUC in D.21-05-031, the market support segment consists of programs  
11 with a primary focus of

12           supporting the long-term success of the energy efficiency market by educating  
13 customers, training contractors, building partnerships, or moving beneficial  
14 technologies towards greater cost-effectiveness.<sup>17</sup>~~[OBJ]~~

15          The 2019 California Energy Efficiency Action Plan clearly indicated that increased  
16 participation and new market activity are needed for the State to achieve its ambitious goals for  
17 energy efficiency, stating that “[r]edesigning and introducing new programs into the market may  
18 contribute the savings needed to reach the 2030 goal” to double energy efficiency savings<sup>18</sup>~~[OBJ]~~ The  
19 2021 Integrated Energy Policy Report (IEPR) Volume I further emphasized this point.<sup>19</sup>~~[OBJ]~~

20          With this guidance in mind, 3C-REN proposes three market support segment programs for  
21 its 2024-2027 portfolio to help achieve the State’s overall goals while addressing regional market  
22

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17 D.21-05-031, p.14

18 2019 California Energy Efficiency Action Plan at 5.

19 IEPR Vol I at 3.

1 needs. 3C-REN will continue to build on its existing Building Performance Training (BPT)  
2 workforce education and training program, to support contractors and other building professionals  
3 on the supply side of energy efficiency and decarbonization transactions. 3C-REN will launch two  
4 new non-resource programs focused on providing education and technical assistance to customers  
5 to foster demand for energy efficiency: an Agriculture Technical Assistance (Ag TA) program and  
6 Energy Assurance Services (EAS) program, a cross-cutting sector initiative to provide  
7 comprehensive load management services for commercial and public facilities.

8 In addition to demand and supply-focused strategies, partnership-building will continue to  
9 be a central focus and strength across 3C-REN's entire portfolio. Introduction of the new Ag TA  
10 and EAS programs will create synergies through new and existing connections to building  
11 professionals in these markets who can benefit from 3C-REN's well-established BPT program.

12 Multiple factors point to the need for increased market support in the Tri-County Region,  
13 which is uniquely located at the end of two electricity service areas, far from the urban hubs of  
14 energy related customer engagement, marketing efforts, and workforce training. 3C-REN's  
15 territory is served by three different IOUs – Pacific Gas & Electric to the north, Southern California  
16 Edison to south, SoCal Gas in all three counties – with overlapping electrical services in Santa  
17 Barbara and Ventura.

18 Customers are not always aware of available energy programs and benefits and may lack  
19 the resources or capacity to follow through with program participation. This was a key point shared  
20 by stakeholders in 3C-REN's Agriculture Sector listening session to inform this filing—assistance  
21 is needed to identify and navigate project and program opportunities available to agriculture

1 customers.<sup>20</sup> Agriculture is a major part of the region’s geography and economy, bolstered by the  
2 recent rise in energy-intensive indoor agriculture, presenting an opportunity for 3C-REN to play  
3 an important role in increasing market support through locally-focused technical assistance and  
4 outreach.<sup>21</sup>

5         Public sector and commercial customers face similar challenges that merit market support.  
6 Energy upgrades of commercial and public sector buildings and infrastructure projects in 3C-REN  
7 territory have been especially limited because of the smaller facilities and region’s rural nature.  
8 Program implementors and administrators have largely neglected the region despite public sector  
9 buildings and infrastructure being in dire need of attention. Technical assistance is vital to enable  
10 public sector and similar commercial projects reach fruition.

11         The Tri-County Region’s energy efficiency workforce faces challenges that can best be  
12 addressed through locally-focused market support to,

13         increase the capability and motivation of market actors to supply energy efficient  
14 products, and/or services and to increase the ability, capability, and motivation of  
15 market actors to perform/ensure quality installations that optimize energy  
16 efficiency savings,

17  
18 in alignment with the CAEECC Market Support Metrics Working Group Final Report.<sup>22</sup>

19         A combination of workforce limitations, geographic isolation and low density make the  
20 area difficult to serve. Contracting companies are typically smaller with low capacity and  
21 experience with building performance. They have difficulty attending remote workforce trainings

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<sup>20</sup> 3C-REN Business Plan Listening Sessions: Agricultural Sector, July 2021. See additional details in the section on Stakeholder Engagement in the Development of this Application.

<sup>21</sup> The Tri-County Region includes nearly 2 million acres of farmland with nearly 6,000 farms. For additional details refer to the Agriculture Sector chapter.

<sup>22</sup> MSWG Final Report at 13.

1 offered by the IOUs due to the location, time, and expense. The region’s low population density  
2 means that contractors must work across counties to be profitable, while the need to engage with  
3 multiple administrators and different programs with distinct rules makes it challenging to achieve  
4 efficiencies of scale.

5 In light of the state’s ambitious goals (AB 32/SB 32, AB 758, and SB 350), PAs must be  
6 increasingly creative with program design, customer engagement, and demonstrating the value of  
7 energy efficiency and deep energy retrofits. CEC and CPUC recommendations have made it clear  
8 that new programs and more spirited program activity are crucial to growing and supporting energy  
9 efficiency and decarbonization markets.<sup>23,24</sup>

10 3C-REN has taken a creative and proactive approach to engaging stakeholders and  
11 gathering feedback to ensure strategies for existing and new programs, as discussed in later  
12 chapters, address the unique challenges and barriers facing the region’s market actors while  
13 adhering to CEC, CPUC, and CAEECC MSMWG guidance for market support programs.

14 **A. Preliminary Distribution of Market Support Budget**

15 3C-REN’s preliminary market support segment budget distribution is shown in the table  
16 below. The allocation for this segment is based on 3C-REN’s intention to continue to build on the  
17 strong foundation of its existing WE&T program while expanding market support segment  
18 activities with two new programs, in the cross-cutting sector to serve commercial and public  
19 facilities, and in the agricultural sector. Proposed market support segment activities and budget  
20 distribution were informed by 3C-REN’s stakeholder listening sessions that indicated a demand

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<sup>23</sup> 2019 California Energy Efficiency Action Plan at 5.

<sup>24</sup> IEPR Vol I at 3.

1 for new programs serving additional sectors, as well as feedback received from WE&T program  
 2 participants about the need to continue and expand the existing program.<sup>25,26</sup>

3 **Table 22: Market Support Segment: Preliminary Distribution of Budget**

Program	2024	2025	2026	2027	Total	% of Segment Total
Agriculture Technical Assistance	714,806	744,819	772,707	803,102	3,035,434	21.3%
Building Performance Training	2,087,734	2,217,373	2,406,678	2,728,040	9,439,825	66.2%
Energy Assurance Services	394,162	394,528	494,910	495,306	1,778,906	12.5%
<b>Total</b>	<b>3,196,702</b>	<b>3,356,720</b>	<b>3,674,295</b>	<b>4,026,448</b>	<b>14,254,165</b>	<b>100%</b>

4

5 **B. Market Support Strategies, Goals, and Outcomes**

6 Market support programs are directed to serve at least one of the market support sub-  
 7 objectives developed by the CAEECC Market Support Metrics Working Group (MSMWG) and  
 8 published in the MSMWG Final Report.<sup>27</sup> Market support segment programs are also intended to  
 9 “build and enable the foundation for future long-term energy savings that align with Commission  
 10 and California climate policy.”<sup>28</sup> In its 2024-2027 portfolio, 3C-REN proposes market support  
 11 sector programs and activities aligned with the following MSMWG Final Report sub-objectives:<sup>29</sup>

12 Sub-Objective #1: Demand: Build, enable, and maintain demand for energy  
 13 efficient products, and services in all sectors and industries to ensure interest in,  
 14 knowledge of benefits of, or awareness of how to obtain energy efficiency products  
 15 and/or services. [Activity e.g., educating customers, building demand]  
 16

17 Sub-Objective #2: Supply: Build, enable, and maintain supply chains to increase  
 18 the capability and motivation of market actors to supply energy efficient products,

<sup>25</sup> 3C-REN Business Plan Listening Sessions: Agriculture Sector and Public Sector, July 2021.

<sup>26</sup> NAPHN & 3C-Ren | Passive House Certification Training Feedback - Online - April 2021.

<sup>27</sup> MSMWG Final Report p.9

<sup>28</sup> MSMWG Final Report p.10

<sup>29</sup> MSMWG Final Report p.13-14

1 and/or services and to increase the ability, capability, and motivation of market  
2 actors to perform/ensure quality installations that optimizes energy efficiency  
3 savings. [Activity e.g., training contractors]  
4

5 Sub-Objective #3: Partnerships: Build, enable, and maintain partnerships with  
6 consumers, governments, advocates, contractors, suppliers, manufacturers,  
7 community-based organizations and/or other entities to obtain delivery and/or  
8 funding efficiencies for energy efficiency products, and/or services and added value  
9 for partners. [Activity e.g., building partnerships]  
10

11 3C-REN’s market support strategies, goals, and outcomes are based on MSMWG’s  
12 recommended sub-objectives and directly correlate with 3C-REN’s overall strategic framework.

### 13 *1. Strategies*

14 3C-REN’s strategies for this sector are:

- 15 1) **Outreach, education and technical assistance:** Provide outreach and  
16 education to customers as a means to build, enable, and maintain demand for  
17 energy efficient products and services by fostering interest in, knowledge of  
18 the benefits of, or awareness of how to obtain these services. Provide technical  
19 assistance to identify projects and support customers with implementation.
- 20 2) **Workforce:** Offer comprehensive services to provide the local workforce—  
21 inclusive of both existing and emerging professionals—with the knowledge  
22 and skills needed to participate in the advanced energy economy by  
23 performing and ensuring quality installations that optimize energy efficiency  
24 savings.
- 25 3) **Partnerships:** Build new and maintain existing partnerships with a diverse  
26 group of organizations to advance delivery and/or funding efficiencies for  
27 energy efficiency products and/or services and added value for partners.

### 28 *2. Goals*

29 3C-REN’s goals for this sector are:

- 1           1) **Outreach, education, and technical assistance:** Be a trusted local resource  
2           and communication channel for energy efficiency and decarbonization to  
3           address the climate crisis and build regional resilience.
- 4           2) **Workforce:** Enhance regional economic vitality by growing the market for  
5           energy projects and developing a local workforce with the expertise and  
6           resources to implement upgrades.
- 7           3) **Partnerships:** In collaboration with diverse partners, provide holistic, scaled,  
8           and bundled solutions to meet customer needs.

9                   **3. Outcomes:**

10           3C-REN’s outcomes for this sector are:

- 11           1) **Outreach, education, and technical assistance:** Increased awareness and  
12           demand for energy efficiency programs that accelerate achievement of State  
13           and local climate goals and result in economic development benefits.
- 14           2) **Workforce:** A well-trained, supported, and sustainable local workforce with  
15           the technical skills and knowledge to offer services that comply with building  
16           codes and State goals.
- 17           3) **Partnerships:** Leverage partnerships to increase access to and participation in  
18           efficiency programs by hard-to-reach and other populations.

19                   **4. Projected Annual Portfolio, Sector, and Segment-Level Market**  
20                   **Support Annual Metrics**

21           The table below displays total systems benefits (TSB) metrics for 3C-REN’s market  
22           support segment by sector for 2024-2027. Due to the nature of the three proposed market support  
23           programs focusing on technical assistance, services, and workforce education and training, TSB  
24           metrics for programs under the segment are zero. These programs are intended to train workforce

1 in the region to complete projects for 3C-REN, IOU, and third party programs with reportable  
 2 energy savings.

3 **Table 23: TSB (\$) of Market Support Segment Programs by Sector**

Program Name	Primary Sector	Sector (CEDARS)	2024	2025	2026	2027	Total
<b>Agriculture Technical Assistance</b>	Agriculture	Agriculture	0	0	0	0	0
<b>Building Performance Training</b>	Cross-Cutting	Residential	0	0	0	0	0
<b>Energy Assurance Services</b>	Cross-Cutting	50% Commercial 50% Public	0	0	0	0	0
<b>Total</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

4

5 **5. Market Support Metrics Working Group Recommended Metrics**

6 In accordance with the MSMWG Final Report, PAs must propose market support program-  
 7 level metrics in their applications that demonstrate progress toward segment sub-objectives and  
 8 may also propose indicators as appropriate. These metrics can be based on segment-level or other  
 9 metrics.<sup>30</sup>

10 3C-REN proposes segment-level metrics aligned with the sub-objectives served by 3C-  
 11 REN’s market support programs: Sub-Objective #1: Demand; Sub-objective #2: Supply; and Sub-  
 12 objective #3: Partnerships. See Appendix D: Market Support and Equity Metrics for 3C-REN’s  
 13 market support segment-level metrics. 3C-REN will follow MSMWG Consensus Principle  
 14 Recommendation #1, measuring performance of the overall segment, not of individual programs.<sup>31</sup>

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<sup>30</sup> MSMWG Final Report, p.10

<sup>31</sup> Ibid, p.10

1 For program-level metrics, see program cards in Appendix A and full lists of metrics provided in  
2 Appendix B, tabs 17 and 18.2.

3 The methodology for tracking these new metrics has yet to be defined. 3C-REN will  
4 coordinate with other PAs and stakeholders as needed to develop those approaches. Targets are  
5 also yet to be determined. The MSMWG Final Report presents two options with principles on  
6 target-setting for market support metrics. 3C-REN chose Option 1 as their first choice, which states  
7 that targets will be set following the collection of the first two program years of data (or after a  
8 baseline has been set using reasonable proxy data).<sup>32</sup>

9 **C. Market Support Coordination**

10 3C-REN will coordinate its market support segment program activities with other program  
11 administrators as well as agencies and organizations serving similar customers and market sectors.  
12 For specific details on coordination, see the relevant sections for Agriculture, Cross-cutting  
13 Workforce Education & Training, and Cross-cutting Energy Assurance Services.

14 **D. Interaction with Market Transformation Activities**

15 The MSMWG Final Report offers recommendations and guidance on the distinction  
16 between market transformation (MT) and market support (MS) objectives, stating,

17 The California energy efficiency (EE) market will benefit most from a collaborative  
18 approach between the Market Transformation Administrator (MTA) and EE  
19 Rolling Portfolio Program Administrators.

20  
21 3C-REN proposes the following approaches for interaction with market transformation  
22 activities, in alignment with MSMWG Final Report guidance.<sup>33</sup>

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<sup>32</sup> MSMWG Final Report, p.10

<sup>33</sup> MSMWG Final Report, p.21

- 1 • 3C-REN will continue to engage in “ongoing and significant collaboration” with  
2 administrators and stakeholders. For example, 3C-REN already collaborates with  
3 administrators and stakeholders for the TECH Clean California market  
4 transformation initiative to identify synergies and opportunities for 3C-REN  
5 customers and program participants to benefit from TECH.
- 6 • 3C-REN will ensure that its programs “will not operate in silos,” proceeding with  
7 the understanding that activities within 3C-REN’s MS segment will affect and be  
8 affected by MT activities.
- 9 • 3C-REN will “consider conceptual differences” in the design of its market  
10 support segment programs, rather than focusing on rigid distinctions between MS  
11 and MT activities. The conceptual differences described by the MSMWG include  
12 the following characteristics of MS in contrast to MT: 1) Broad, cross-cutting EE  
13 support rather than initiative specific; 2) Supportive of existing or anticipated  
14 market needs, rather than disruption of markets; and 3) Ongoing support, rather  
15 than finite.<sup>34</sup>

#### 16 **IV. EQUITY**

17 D.21-05-031 defines the equity segment as consisting of programs with a primary purpose

18 of

19 providing energy efficiency to hard-to-reach or underserved customers and  
20 disadvantaged communities in advancement of the Commission’s Environmental  
21 and Social Justice (ESJ) Action Plan. Improving access to energy efficiency for ESJ  
22 communities, as defined in the ESJ Action Plan, may provide corollary benefits  
23 such as increased comfort and safety, improved air quality, and more affordable  
24 utility bills, consistent with Goals 1, 2, and 5 in the ESJ Action Plan.<sup>35</sup>

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<sup>34</sup> MSMWG Final Report, Figure 2: Conceptual Distinctions between MT and MS, p.22

<sup>35</sup> D.21-05-031, p.14

1           The creation of the equity segment and focus on serving HTR, underserved, DAC, and ESJ  
2 communities is welcomed by 3C-REN, which shares the CPUC’s commitment to environmental  
3 and social justice efforts that “seek to foster equity for marginalized communities, including  
4 addressing historic underinvestment that has allowed inequity to flourish.”<sup>36</sup> 3C-REN is mission-  
5 driven to serve the communities in its region with transparency and accountability. Through its  
6 equity segment programs and throughout its portfolio 3C-REN will pursue equity and  
7 environmental justice for its constituents, combatting structural and institutional racism.<sup>37</sup>

8           3C-REN proposes three programs within the equity segment of its 2024-2027 portfolio: its  
9 existing Single Family and Multifamily Home Energy Savings programs, and a new Commercial  
10 Marketplace program focusing on small- and medium-sized businesses. With the addition of a  
11 commercial program, 3C-REN will expand its role in driving equity and ESJ outcomes for the full  
12 scope of residential and small business customers identified in the HTR criteria established in  
13 Resolution G-3497 and updated in D.18-05-041.<sup>38</sup> All three equity segment programs will  
14 contribute energy savings and GHG emissions reductions in accordance with the State’s  
15 midcentury climate goals. Establishing clear and measurable value for energy efficiency work in  
16 the commercial (particularly for small and HTR businesses), and residential sectors is paramount  
17 to meet the State’s goal of doubling energy efficiency in existing buildings by 2030, as outlined in

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<sup>36</sup> Environmental & Social Justice Action Plan, Version 2.0, California Public Utilities Commission, dated October 26, 2021, at 7. Available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>.

<sup>37</sup> For more on 3C-REN’s diversity initiatives, please see the section on Supplier Diversity.

<sup>38</sup> Protest of Small Business Utility Advocates to the Energy Efficiency Annual Budget Advice Letters for Program Year 2021 at 2-3. Filed October 1, 2020.

1 SB 350. For both electricity and natural gas efficiency targets, most savings are expected to come  
2 from the residential and commercial sectors.<sup>39</sup>

3 By offering energy efficiency rebates in these equity programs, 3C-REN can play a role in  
4 delivering distributive justice to its vulnerable communities,<sup>40</sup> with programs that align with  
5 Environmental and Social Justice Action Plan (ESJ Plan) Goal 2: “Increase investment in clean  
6 energy resources to benefit ESJ communities, especially to improve local air quality and public  
7 health.”<sup>41</sup>

8 In accordance with its strategic framework described in Chapter 1, 3C-REN will provide  
9 equitable opportunities for energy efficiency and corollary benefits for its customers, many of  
10 whom meet the criteria for hard-to-reach, DAC, underserved, and ESJ communities (collectively,  
11 “vulnerable communities”).

12 The Tri-Counties is home to more than 1.5 million people, approximately four percent of  
13 California’s population. The region’s 41,916 enterprises support more than 600,000 jobs, nearly  
14 half in businesses with less than 50 employees, 17 percent with fewer than 10 employees, defined  
15 as very small and hard to reach.<sup>42</sup> 3C-REN’s service area is geographically isolated and diverse,  
16 with varying microclimates and pockets of urban jurisdictions surrounded by rural agricultural  
17 communities. The region has significant numbers of people of color and a large Spanish-speaking

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<sup>39</sup> 2019 California Energy Efficiency Action Plan, p.66-67.

<sup>40</sup> CPUC Environmental & Social Justice Action Plan, Version 2.0, California Public Utilities Commission, dated October 26, 2021, at 64. Available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>. Distributive justice is defined as fairness in the distribution of rights or resources.

<sup>41</sup> Ibid, p. 1.

<sup>42</sup> Census.gov

1 population. These vulnerable communities face multiple challenges that require a locally-focused  
 2 on-the-ground approach. 3C-REN has the presence and connections in the community to drive  
 3 equitable outcomes.

4 **Table 24: People of Color in the Tri-County Region**

Race and Hispanic Origin	Santa Barbara County	San Luis Obispo County	Ventura County
<b>Hispanic or Latino</b>	46.00%	22.90%	43.20%
<b>Black or African American alone</b>	2.40%	2.00%	2.40%
<b>American Indian and Alaska Native alone</b>	2.10%	1.40%	1.90%
<b>Asian alone</b>	6.00%	4.00%	7.90%
<b>Native Hawaiian and Other Pacific Islander alone</b>	0.30%	0.20%	0.30%
<b>Two or More Races</b>	3.80%	3.60%	3.50%

5 *Source: [U.S. Census Bureau QuickFacts: Santa Barbara County, California; San Luis](#)  
 6 [Obispo County, California; Ventura County, California](#). Based on race and Hispanic origin data  
 7 from categories other than “white alone” and “white alone, not Hispanic or Latino.”*

8  
 9 Being located outside the state’s large metropolitan areas is one of the main criteria for  
 10 hard-to-reach eligibility considerations for residential customers and small business customers.<sup>43</sup>  
 11 Two of the three counties that form 3C-REN (Santa Barbara and San Luis Obispo) meet this  
 12 criteria. The Tri-Counties are difficult to get to, with no major airports and low population density.  
 13 The area is served by three IOUs with headquarters and primary offices located in the Bay Area  
 14 or Los Angeles/Southern California. Approximately eight percent of the region’s communities are  
 15 in rural areas,<sup>44</sup> about 13 percent in small towns with less than 8,000 people.

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<sup>43</sup> Hard to Reach eligibility requirements are based on the definition in Resolution G-3497 (p 63-64) and updated in D.18-05-041 (p 41-53).

<sup>44</sup> “Rural encompasses all population, housing, and territory not included within an urban area.” US Census Bureau, <https://www.census.gov/geo/reference/urban-rural.html>.

1           These characteristics contribute to the lack of a robust workforce to serve the communities  
 2 in a routine and consistent manner, leading to disparate energy efficiency program investments—  
 3 a defining indicator of ESJ communities. 3C-REN’s equity segment programs are designed to  
 4 address this inequity through provision of outreach and energy efficiency programs, while  
 5 providing cross-cutting market support through its WE&T program to support high road career  
 6 paths and economic opportunity, in alignment with 3C-REN’s strategic framework and ESJ Plan  
 7 Revised Goal 7.<sup>45</sup>

8 **Table 25: 3C-REN Rural Communities Characteristics**

	Ventura County	San Luis Obispo County	Santa Barbara County	Region Totals
<b>Small Towns (Under 8,000)</b>				
Population	45,838	47,720	44,048	137,606
Est. Percentage	6%	21%	12%	13%
<b>Rural Population as Defined by US Census</b>				
Rural Housing Units	9,783	20,394	9,392	39,569
Percentage of Units	4%	20%	7%	8%
Rural Population	25,725	44,750	21,269	91,744
Percentage of Population	3%	16%	5%	8%

9 *Source: US Census, American Community Survey 2011-2015<sup>46</sup>*

10           The Tri-Counties are diverse; more than 35 percent of its population speaks a language  
 11 other than English at home, primarily Spanish. Language and educational level can be barriers to

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<sup>45</sup> Environmental & Social Justice Action Plan, Version 2.0, California Public Utilities Commission, dated October 26, 2021, at 5. Available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>.

<sup>46</sup> Note regarding vintage of data: the U.S. Census Bureau has indicated that the 2016-2020 American Community Survey 5-year data release originally targeted for December 2021 has been delayed and will be released March 17, 2022. <https://www.census.gov/newsroom/press-releases/2022/acs-5-year-estimates-update.html>

1 participation in energy retrofit programs, contributing to a lack of awareness and difficulty  
 2 understanding program requirements.<sup>47</sup> Similar to geographic location, language is a main criteria  
 3 that defines hard-to-reach eligibility.<sup>48</sup>

4 3C-REN addresses language barriers in all its programs, not just the equity segment. 3C-  
 5 REN has Spanish speakers on staff and provides translated website materials and quarterly  
 6 trainings through its existing portfolio and is working with its communities to assess additional  
 7 needs for bilingual trainers and content. 3C-REN contributes funds to online engagement platform  
 8 Bright Action, which provides materials natively translated to Spanish.

9 **Table 26: Language other than English spoken at home in the Tri-Counties**

	Ventura County	San Luis Obispo County	Santa Barbara County	Tri-County Region Overall
<b>Total Population</b>	843,843	282,424	448,229	1,574,496
<b>Language other than English spoken at home</b>	38.80%	18.10%	40.50%	35.57%
<b>Population with language other than English spoken at home</b>	327,411	51,119	181,533	560,063

10 *Source: 2015-2019 American Community Survey 5-year Estimates*

11 Income and housing are important considerations in 3C-REN’s delivery of equity segment  
 12 offerings and other criteria to identify hard-to-reach customers. The average median income in the

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<sup>47</sup> Scavo, Korosec, Guerrero, et al, 2016. “Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-income customers and Small Business Contracting Opportunities in Disadvantaged Communities.” CEC. Publication Number: CEC-300-2016-009-SD2, page 48.

<sup>48</sup> Resolution G-3497 (p 63-64)

1 Tri-County Region is \$81,718, slightly higher than California’s (\$80,440). The median house price  
 2 is \$791,500, \$55,000 higher than the State’s median price of \$736,500.<sup>49,50</sup>

3 Higher housing costs and higher costs of living prompt affordability concerns for owners  
 4 and renters alike. A household that is considered moderate income and does not meet the threshold  
 5 to participate in low-income energy efficiency programs likely subsists on a tight budget. In the  
 6 Tri-County Region between 55 and 58 percent of renters dedicate more than 30 percent of their  
 7 income to rent, indicating that they are cost-burdened under Federal guidelines.<sup>51</sup>

8 **Table 27: 3C-REN Households**

	Ventura County	San Luis Obispo County	Santa Barbara County	Tri-County Total
<b>Population</b>	843,843	282,424	448,229	<b>1,574,496</b>
<b>Total Households</b>	268,524	106,512	146,466	<b>521,502</b>
<b># of households who rent</b>	99,891	40,049	70,011	<b>209,950</b>
<b>% of households who rent</b>	37.2%	37.6%	47.8%	<b>40.26%</b>
<b>Median Household Income</b>	\$92,236	\$77,265	\$75,653	<b>\$81,718</b>

9 *Source: 2019 American Community Survey 1-Year Estimates, available online at [American](https://www.census.gov)*  
 10 *Community Survey (ACS) ([census.gov](https://www.census.gov)). Accessed January 2022.*

11

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<sup>49</sup> 2019 American Community Survey 1-Year Estimates

<sup>50</sup> Housing price data from Redfin national real estate brokerage. Accessed January 2022 at [www.redfin.com](https://www.redfin.com).

<sup>51</sup> Census [US Census Bureau]. 2020. 2018 American Community Survey 1-Year Estimates: Financial Characteristics, Table S2503. Accessed at [https://data.census.gov/cedsci/table?q=housing%20income&g=0500000US06079,06111,06083&tid=ACSST1Y2018.S2503&t=Income%20%28Households,%20Families,%20Individuals%29%3AHousing&vintage=2018&hidePreview=true&layer=VT\\_2018\\_050\\_00\\_PY\\_D1](https://data.census.gov/cedsci/table?q=housing%20income&g=0500000US06079,06111,06083&tid=ACSST1Y2018.S2503&t=Income%20%28Households,%20Families,%20Individuals%29%3AHousing&vintage=2018&hidePreview=true&layer=VT_2018_050_00_PY_D1)

1           In addition to HTR, 3C-REN’s residential and commercial programs prioritize outreach to  
2 other populations that are under-invested and under-represented by traditional utility energy  
3 efficiency programs, including DACs, ESJ Communities, and underserved communities. A  
4 criterion to identify DACs, ESJ Communities, and underserved communities is disproportionate  
5 exposure to and impacts from environmental hazards. The Commission’s ESJ Action Plan sets  
6 forth goals that include increasing investment in clean energy resources to benefit ESJ  
7 communities and improve local air quality and health, as well as bolster climate resiliency in ESJ  
8 communities.<sup>52</sup>

9           A range of climate adaptation challenges face the Tri-Counties: sea level rise threatens the  
10 region’s extensive coastal areas; water scarcity is a problem for the population as a whole and  
11 agriculture in particular; extreme and longer-lasting heat is a risk to crops and Tri-County  
12 inhabitants; wildfires pose a danger to the population and farms, along with poor or dangerous air  
13 quality from smoke; all of which demands improved resiliency through deployment of renewables  
14 and energy storage solutions.

15           These issues and stakeholders’ concerns informed 3C-REN’s program 2024-2027  
16 portfolio. 3C-REN’s proposed programs are designed to help achieve the Commission’s ESJ goals  
17 through clean energy investments for residential and commercial customers in the equity segment,  
18 as well as through its market support offerings, such as its cross-cutting offering to deliver  
19 technical assistance for comprehensive load management and resiliency projects.

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<sup>52</sup> Environmental & Social Justice Action Plan, Version 2.0, California Public Utilities Commission, dated October 26, 2021, at 1. Available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>.

1 Another important ESJ Action Plan goal is to promote economic and workforce  
2 development. 3C-REN will help achieve this goal through its equity segment programs as well as  
3 its established and well-received WE&T program, Building Performance Training (BPT), in the  
4 market support segment. Part of 3C-REN’s mission and overall strategic framework is to build a  
5 diverse workforce that can accelerate energy efficiency adoption. . To educate workers at varied  
6 skill levels and different-sized businesses, 3C-REN is expanding WE&T offerings and addressing  
7 training access inequities for underserved and disadvantaged workers. With established  
8 connections from its WE&T program, such as with community colleges and industry associations,  
9 3C-REN is ideally positioned to offer equity-focused residential and commercial programs that  
10 intersect with and support the goal of building a diverse, inclusive, and capable workforce.

11 Partnerships and stakeholder engagement are critical to addressing equity issues. 3C-REN  
12 has engaged a Diversity, Equity, Inclusion and Justice (DEIJ) consultant to advise on program  
13 development, and has contracted with the Santa Barbara Promotores Network, a grassroots  
14 network of community members who promote 3C programs.

15 In crafting its proposed Commercial Marketplace program, 3C-REN has garnered insights  
16 from the Green Business Network to inform development of strategies and tactics to improve  
17 program reach into HTR commercial markets, including Spanish-speakers. 3C-REN’s network of  
18 community organizations and other local government agencies is one of its greatest assets. 3C-  
19 REN will continue to conduct enhanced outreach to ensure members of vulnerable communities

1 can meaningfully participate in stakeholder engagement processes and benefit from 3C-REN  
2 programs, in alignment with ESJ Plan Goal 5.<sup>53</sup>

3 **A. Preliminary Distribution of Equity Budget**

4 3C-REN’s preliminary equity segment budget distribution is shown in the table that  
5 follows. The allocation reflects the centrality of equity-focused programs to 3C-REN’s mission.

6 Under Commission guidance in D.21-05-031, non-REN program administrators can  
7 allocate no more than 30 percent of their portfolio budget to equity and market support programs.  
8 RENS are exempt from this requirement. As explained by the CPUC, “RENS, by their nature and  
9 primary purposes, are more likely to have a greater share of their portfolio devoted to market  
10 support and/or equity programs.”<sup>54</sup>

11 3C-REN has dedicated a significant portion of its budget to equity segment programs.  
12 Individual program budgets have been developed using a bottom-up approach informed by  
13 estimates of the labor and materials needed to serve each program’s targeted audience.

14 **Table 28: Equity Segment Preliminary Distribution of Budget (\$)**

Program	2024	2025	2026	2027	Total	% of Segment Total
Commercial Marketplace	2,401,251	2,464,141	2,544,871	2,605,030	10,015,293	21.6%
Multifamily Home Energy Savings	3,747,708	3,972,483	4,203,660	4,727,469	16,651,320	35.9%
Single Family Home Energy Savings	4,704,816	4,962,011	5,025,989	5,079,575	19,772,391	42.6%

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<sup>53</sup> Environmental & Social Justice Action Plan, Version 2.0, California Public Utilities Commission, dated October 26, 2021, at 1. Available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>.

<sup>54</sup> D.21-05-031, p. 23.

	<b>Total</b>	<b>10,853,775</b>	<b>11,398,635</b>	<b>11,774,520</b>	<b>12,412,074</b>	<b>46,439,004</b>	<b>100%</b>
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**B. Equity Strategies, Goals, and Outcomes**

3

The CAEECC Equity Metrics Working Group (EMWG) recommends the following

4

primary objective for the equity segment:<sup>55</sup>

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For hard-to-reach, disadvantaged, and/or underserved individuals, households, businesses, and communities: address disparities in access to energy efficiency programs and workforce opportunities\*; promote resilience, health, comfort, safety, energy affordability\*\*, and/or energy savings; and reduce energy-related greenhouse gas and criteria pollutant emissions\*\*\*.

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\* The term “workforce opportunities” includes, but is not limited to, the energy efficiency supply chain, companies/non-profits that deliver efficiency services, as well as the workers who implement the work within equity segment programs. This language does not presume that PAs must create programs to address all or some of the items listed here, nor does it infer that we have consensus that this segment should have workforce specific programs. The purpose of the “\*” is to clarify what the term “workforce opportunities” encompasses. Any substantive issues should be addressed within the context of the workforce metric(s).

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\*\* Energy affordability pertains to bill savings achieved through increased efficiency in energy use, delivering the same or improved level of service with a lower cost to the customer.

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\*\*\*The term “criteria pollutant” refers to: ground-level ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide (<https://www.epa.gov/criteria-air-pollutants>).

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3C-REN’s segment-specific strategies, goals, and outcomes for equity are based on

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EMWG’s recommended objective and directly correlate with its overall strategic framework.

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<sup>55</sup> CAEECC-Hosted Equity Metrics Working Group Report and Recommendations to the California Public Utilities Commission and the Energy Efficiency Program Administrators. Final Report, October 20, 2021, at 15.



1 and Indicators for “Holistic” Benefits. Appendix D: Market Support and Equity Metrics for 3C-  
2 REN’s equity segment-level metrics.

3 3C-REN will follow EMWG Consensus Principle Recommendation #1 and focus on  
4 measuring performance of the overall segment, rather than individual programs.<sup>56</sup> For program-  
5 level metrics, see program cards in Appendix A and full lists of metrics provided in Appendix B,  
6 tabs 17 and 18.2.

7 The methodology for tracking these new metrics has yet to be defined. 3C-REN will  
8 coordinate with other PAs and stakeholders as needed to develop approaches. Targets are also yet  
9 to be determined. Similar to the Market Support segment, the EMWG Final Report presents two  
10 options with principles on target-setting for equity metrics. 3C-REN chose Option 1 as its first  
11 choice, which states that targets will be set following the collection of the first two program years  
12 of data (or after a baseline has been set using reasonable proxy data).<sup>57</sup> 3C-REN proposes to adhere  
13 to this principle in setting targets for its equity segment offerings.

#### 14 **C. Equity Coordination**

15 3C-REN will coordinate its equity segment program activities with other program  
16 administrators as well as agencies and organizations serving similar customers and market sectors.  
17 For additional details, see the Sector Coordination sections for Residential and Commercial.

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<sup>56</sup> EMWG Final Report, p.10

<sup>57</sup> EMWG Final Report, p.12

1 **CHAPTER 4. SECTOR STRATEGY**

2 **I. STRATEGIES DRIVING DISTRIBUTION OF BUDGET AMONG SECTORS**

3 3C-REN’s preliminary budget distribution among market sectors is informed by regional  
4 needs as aligned with broader portfolio objectives and CPUC guidance. 3C-REN’s Strategic  
5 Business and 2024-2027 Portfolio plans are guided by three overarching principles, strategies, and  
6 desired outcomes: providing EE opportunities to HTR, DAC, and underserved communities;  
7 serving as a trusted resource for EE and decarbonization communications; and supporting the local  
8 workforce’s participation in the advanced energy economy. This framework informs 3C-REN’s  
9 approach to the sectors it proposes continue to serve, sector-specific programs, and budget  
10 allocation.

11 **II. DESCRIPTION OF SECTORS 3C-REN PROPOSES TO SERVE**

12 For program years 2024-2027, 3C-REN proposes to offer services to new sectors including  
13 agriculture and commercial, as well as expand offerings in the cross-cutting sector to include a  
14 new program for commercial and public facilities. 3C-REN also proposes to continue to provide  
15 existing programs in the residential and cross-cutting sectors.

16 The decision to expand services to these new sectors and programs was based on 3C-REN’s  
17 analysis of gaps in energy efficiency services offered in the Tri-County Region, as well as feedback  
18 received from stakeholders in the sector-specific listening sessions that 3C-REN hosted to inform  
19 this application.

20 **III. PRELIMINARY DISTRIBUTION OF BUDGET AMONG SECTORS FOR**  
21 **2024-2027**

22 The table below shows the preliminary distribution of budget among 3C-REN’s existing  
23 and proposed sectors for program years 2024 through 2027. The rationale for the distribution of  
24 budget among sectors is to continue building and expanding upon its existing programs, assets,

1 services and systems, as well as develop new initiatives. The portfolio plan describes 3C-REN's  
 2 strategies and tactics that will enable it to continue to nurture robust residential, workforce,  
 3 education and training, and codes and standards programs and expand to serve new sectors, such  
 4 as agricultural, commercial, and public, while filling service gaps, particularly for hard-to-reach  
 5 populations. The preliminary distribution of budget among sectors is aligned with principles as  
 6 detailed in Chapter 2 of the Strategic Business Plan Exhibit 2 and with the strategies to (1) connect  
 7 customers with 3C-REN programs as well as CCAs' and other PAs' offerings to deliver holistic,  
 8 equitable outcomes; (2) establish compelling, portfolio-wide marketing and education that  
 9 catalyzes demand for energy efficiency services and building decarbonization; and (3) offer  
 10 comprehensive services to provide the local workforce with the knowledge and skills needed to  
 11 participate in the advanced energy economy.

12 **Table 30: Preliminary Distribution of Budget (\$) Among Sectors for 2024-2027**

Primary Sector*	BP Sector	2024	2025	2026	2027	Total
<b>Agriculture</b>	Agriculture	714,806	744,819	772,707	803,102	3,035,434
<b>Commercial</b>	Commercial	2,401,251	2,464,141	2,544,871	2,605,030	10,015,293
<b>Residential</b>	Residential	8,452,524	8,934,494	9,229,649	9,807,044	36,423,711
<b>Cross-Cutting</b>	Commercial Public					
	Residential	4,343,863	4,517,819	4,906,851	5,269,819	19,038,352
	Total	15,912,444	16,661,273	17,454,078	18,484,995	68,512,790

\* CEDARS groups programs into one of five Primary Sectors: Agricultural, Commercial, Cross-Cutting, Industrial, Public, and Residential and all programs must fall under one of the five Primary Sectors. The Business Plan (BP) Sector in CEDARS includes a different list of options as follows: Agricultural, Codes and Standards, Commercial, Emerging Technologies, Energy Savings Assistance, Evaluation Measurement and Verification, Finance, Industrial, On Billing Finance, Public, Residential, Workforce Education and Training. A program that falls under cross-cutting for the primary sector must have BP sectors from that specific list as cross-cutting is not an option for BP sector.

In the case of 3C-REN's proposed Energy Assurance Services program, this program is cross-cutting with a forecast distribution to serve 50 percent commercial and 50 percent public.

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1           **IV. AGRICULTURAL SECTOR (M. HANSON AND M. MARCHANT)**

2           The Tri-County Region hosts a high level of agricultural production, particularly in Santa  
3 Barbara and San Luis Obispo counties. While Ventura County does not have as many farmland  
4 acres, crop value is higher than the other two counties.

5           Regionally there are nearly two million acres of farmland with nearly 6,000 farms. Smaller  
6 producers, those with less than 180 acres, 82 percent of all farms (4,877 total farms),<sup>58</sup> often lack  
7 the capacity, time, and resources to access government, IOU and large agency incentive  
8 programs—particularly those designed to transition to more environmentally friendly practices.

9           A November 2021 California Department of Food and Agriculture (CDFA) report,  
10 “Farmer and Ranch-led Climate Change Solutions,” summarizes feedback from a series of  
11 listening sessions that identified challenges and opportunities in the agricultural sector, including  
12 the need for tailored interventions for smaller farms,

13                     Farms, and especially smaller farms, need greater support, particularly  
14                     financial support required for the cost and financial risk associated with  
15                     investments in new technology and equipment.<sup>59</sup>  
16

17           Crop growers, who represent the majority of farms in the region, indicated the need for  
18 more comprehensive technical assistance to help them acquire grants and funding for new

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58 “California Agricultural Statistics Review 2019-2020,” CDFA, Page 15.

<sup>59</sup> CDFA, *Farmer and Rancher-Led Climate Change Solutions Listening Sessions*, November 2021 at 4. Last accessed February 2022 at [https://www.cdfa.ca.gov/oefi/climate/docs/cdfa\\_farmer\\_and\\_rancher-led\\_climate\\_solutions\\_meetings\\_summary.pdf](https://www.cdfa.ca.gov/oefi/climate/docs/cdfa_farmer_and_rancher-led_climate_solutions_meetings_summary.pdf)

1 technologies as well as ongoing implementation support.<sup>60</sup> This sentiment was reinforced by the  
2 3C-REN listening sessions and outreach conducted to County Agricultural Advisory Committees.

3 Cannabis-based agriculture and processing is a growing and substantial new area in the  
4 Tri-County Region. There is a trend towards using high-energy indoor systems for these crops to  
5 improve yields.

6 Nationally, 80 percent of cannabis is cultivated indoors with sophisticated  
7 lighting and environmental controls designed to maximize the plant’s yield.  
8 It’s a setup that can consume up to 2,000 watts of electricity per square  
9 meter, 40 times what it takes for leafy greens like lettuce, when grown  
10 indoors.<sup>61</sup>

11  
12 There is an opportunity to help new growers develop systems and buildings that are highly  
13 energy efficient and reduce the impacts of their operations. 3C-REN is in a unique position to  
14 lower energy use in cannabis operations due to requirements for growers to obtain and renew  
15 business licenses through counties. For example, cannabis operators in Santa Barbara County are  
16 required to submit an “Energy Conservation Plan” detailing how they will reduce energy use prior  
17 to a business license being approved, with similar requirements in Ventura County. This is a  
18 perfect point of intervention for 3C-REN to leverage and offer technical assistance and incentive  
19 information, and dovetails nicely with WE&T training 3C-REN began offering for cannabis  
20 producers in 2021. A new California law that will go into effect in January 2023 will require  
21 licensed cannabis producers to track the GHG emissions and energy intensity of their nursery and  
22 indoor grow operations.<sup>62</sup>

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<sup>60</sup> Ibid, p. 20-21.

<sup>61</sup> <https://www.politico.com/news/2021/08/10/weed-cannabis-legalization-energy-503004>

<sup>62</sup> <https://www.dwcannabislaw.com/blog/california-to-address-carbon-footprint-of-the-cannabis-industry/>

1           The USDA tracks several key characteristics for producers—those who have a role in  
2 decision making on a farm—including the number of new producers, and those who are Hispanic.  
3 Approximately twenty-nine percent of producers are farmers with less than 10 years' experience,  
4 and thirteen percent are of Hispanic origin (Source: USDA NASS, 2017 Census of Agriculture).  
5 Ninety percent of farmers in the Tri-County Region are family-owned.

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7           *Sources: California Department of Food & Agriculture, "California Statistics Review 2019*  
8 *-2020."* and *United States Department of Agriculture, "2017 Census of Agriculture, County*  
9 *Profile," San Luis Obispo, Santa Barbara, and Venture Counties.*

10

11           The Agriculture Sector, including, food production and storage, offices and operations,  
12 indoor growing, accounts for approximately eight percent of California's energy consumption and  
13 seventy percent related to water pumping and irrigation. Thirty-three percent of energy use occurs  
14 during peak energy pricing periods.<sup>63</sup> Stakeholders during the 3C-REN listening sessions indicated  
15 that typically older irrigation systems provide an "on or off" setting with little ability for a farmer  
16 to effectively manage flows or alter watering practices based on weather or soil conditions.  
17 Transitioning to micro-sprinklers, Variable Frequency Drive Pumps (VFDP) irrigation systems,  
18 and adding soil and water monitors would assist in reducing water and energy use. The IOUs  
19 provide incentives in some of these areas, but smaller farms experience participation barriers.

20           Technical assistance offers the opportunity to build relationships with customers to better  
21 understand their needs from a holistic perspective, including and beyond energy efficiency. For  
22 example, agricultural sector stakeholders in 3C-REN's listening session wanted solar energy. 3C-  
23 REN can reinforce the best practice of implementing energy-saving upgrades first and make

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<sup>63</sup> [https://agwaterstewards.org/practices/water\\_energy/](https://agwaterstewards.org/practices/water_energy/)

1 referrals to relevant solar programs serving the region. In this way, 3C-REN’s technical assistance  
 2 services can help guide customers toward complementary opportunities to meet their resiliency  
 3 needs while prioritizing energy efficiency to reduce overall demand and contribute to achieving  
 4 the State’s midcentury climate and energy efficiency goals.

5 **A. Agricultural Sector Goals, Objectives, and Strategies**

6 **Table 31: Agricultural Sector – Goals, Objectives, and Strategies**

Goal	Objective	Strategy	Tactics
I. Assist an average of 30 agricultural customers per year to reduce energy consumption.	Grow the number of agricultural program participants by 10 percent annually.  Help six percent of cannabis cultivators to reach energy savings goals in coordination with IOU and third-party programs.	A. Offer personalized and customizable technical assistance and assessments to agricultural customers through regionally focused programs.	<ul style="list-style-type: none"> <li>• Expand relationships with agricultural customers and associated organizations/associations.</li> <li>• Deliver technical assistance to identify energy upgrade potential and complementary programs.</li> <li>• Address specialized energy and compliance needs of indoor agriculture/cannabis through technical assessments.</li> <li>• Focus on smaller and socially disadvantaged agricultural customers for program services.</li> </ul>

7  
8 **1. Goals**

9 Goal I. Assist an average of 30 agricultural customers per year reduce energy consumption.

10 **2. Objectives**

11 3C-REN has identified objectives to measure its incremental progress toward achieving its  
 12 goal for serving agricultural customers:

- 13 • Objective 1: Grow the number of agricultural program participants by 10 percent  
 14 annually.
- 15 • Objective 2: Help six percent of cannabis cultivators reach energy savings goals  
 16 in coordination with IOU and third-party programs.

1 To achieve these objectives and support the overall sector goal outlined above, 3C-REN  
2 proposes the following strategy and supporting tactics.

### 3 **3. Strategies**

#### 4 **a. Strategy I-A. Offer personalized and customizable technical assistance and** 5 **assessments to agricultural customers through regionally focused programs**

6 Cannabis growers have recently proliferated throughout the Central Coast. These growers,  
7 as well as socially disadvantaged farmers, will benefit from specialized support to comply with  
8 local energy use reduction requirements for cannabis production, as well as assistance identifying  
9 and implementing water-energy nexus measures to address high energy usage and support  
10 achieving regional climate and resiliency goals.

11 In listening sessions to inform this filing, 3C-REN asked agriculture sector stakeholders  
12 what program ideas should be explored. A common thread was the need for a “map” to navigate  
13 the various programs and funding sources available for agricultural energy efficiency.  
14 Stakeholders indicated that trying to differentiate between various providers and options is  
15 “overwhelming” and they need help to assess their options and make decisions about project  
16 opportunities and equipment purchases.<sup>64</sup>

17 Key findings and recommendations from the 2021 Potential and Goals Study Attachment  
18 2: Industrial/Agricultural Market Saturation Study confirm that while there is promise of  
19 significant energy savings and opportunities for energy efficiency improvements in the agricultural  
20 sector, there is a need for improved customer education and program participation.<sup>65</sup>

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<sup>64</sup> 3C-REN Business Plan Listening Session: Agricultural Sector. July 2021.

<sup>65</sup> Guidehouse, *2021 Energy Efficiency Potential Study, Attachment 2: Industrial/Agriculture Market Saturation Study*, April 16, 2021, at vi-vii.

1           3C-REN has crafted its agricultural sector offerings to provide comprehensive technical  
2 assistance that will deliver precisely the help and support stakeholders have requested. As  
3 recommended in the Industrial/Agricultural Market Saturation Study, 3C-REN’s tactics center on  
4 expanding relationships with agricultural customers and organizations/associations, delivering  
5 technical assistance to identify energy upgrades and complementary programs, addressing  
6 specialized energy and compliance needs of indoor agriculture/cannabis, and focusing on smaller  
7 and socially disadvantaged growers, as further detailed below.

8           ***Tactic: Expand existing relationships with agricultural customers and***  
9           ***organizations/associations***

10           The 2021 Potential and Goals Study Attachment 2: Industrial/Agricultural Market  
11 Saturation Study highlights the need for closer investigation into the energy efficiency needs and  
12 barriers confronting the agricultural market sector.

13           “Generally, the industrial and agricultural market sectors are a hard to reach  
14 market for research and data. Crowd-sourcing across organizations and studies  
15 may be an efficient way over multiple years to get a longitudinal assessment of  
16 these sectors and sufficient data sets to draw robust conclusions. These efforts  
17 can provide more insight on the best approach to address barriers and  
18 understanding existing saturation and potential for EE”.<sup>66</sup>

19           3C-REN’s research, gap analysis and listening sessions confirm that a relationship-based  
20 approach will be critical to overcome barriers to energy efficiency deployment in this sector. In  
21 this application, 3C-REN proposes to expand its relationships to build a more robust understanding  
22 of the region’s agricultural sector and its energy efficiency needs, to communicate with customers  
23 about program offerings, and to refine programs based on agricultural customer feedback.

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<sup>66</sup> Guidehouse, *2021 Energy Efficiency Potential Study, Attachment 2: Industrial/Agriculture Market Saturation Study*, April 16, 2021, at x.

1           3C-REN will network and build on existing and new connections with agencies and  
2 organizations that serve farmers, including but not necessarily limited to Farm Bureaus;  
3 Agricultural Advisory Committees; Resource Conservation Districts; CommUnify (formerly the  
4 Community Action Commission of Santa Barbara County); University of California Cooperative  
5 Extension (UCCE) in each of the tri-counties; CalPoly Irrigation Training & Research Center;  
6 Resource Innovation Institute; Rural Community Assistance Corporation; California Department  
7 of Food and Agriculture (CDFA); USDA Natural Resources Conservation Service (NRCS).

8           In consultation with these entities, 3C-REN will continually vet program design and  
9 identify opportunities to connect with small groups or individual agricultural customers. Similarly,  
10 3C-REN will collaborate with other PAs that serve agricultural customers, including IOUs, CCEs  
11 and other RENs, to refine program offerings to fill gaps and connect programs to eligible  
12 agricultural customers.

13           3C-REN will improve program offerings based on interviews with local small- and  
14 medium-sized agricultural customers whose interests may not be entirely represented by industry  
15 groups, as socially disadvantaged growers rarely participate in these organizations.<sup>67</sup>  
16 Understanding the needs of those customers will be crucial to program success. Although  
17 agricultural customers are not recognized in the current HTR definition, prioritizing outreach to  
18 underserved members of this market sector aligns with 3C-REN’s commitment to serving  
19 underrepresented communities and ensuring they have opportunities for meaningful participation  
20 in energy efficiency.

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<sup>67</sup> California Department of Food and Agriculture, *2020 Report to the California Legislature on the Farmer Equity Act*. Last accessed December 2021 at <https://www.cdfa.ca.gov/farmerresources/pdfs/2020FarmerEquityReport.pdf>

1 Connecting with cannabis growers will be especially important for program design and  
2 improvement given the limited data in the literature for this customer group. Specifically, the  
3 Potential & Goals Industrial/Agricultural Market Saturation Study<sup>68</sup> highlighted greenhouse  
4 operations (along with dairies and water pumping) as top areas for further study.

5 3C-REN is well suited to conduct this thorough stakeholder engagement due to existing  
6 programs and relationships with agencies and agricultural customers established during research  
7 and listening sessions, and other program engagement. For instance, 3C-REN staff review the  
8 County of Santa Barbara cannabis growers’ energy conservation plans, a requirement for cannabis  
9 growers. Additionally, 3C-REN's BPT program offers training on EE measures for indoor cannabis  
10 cultivation. Although training is limited to webinar formats, cannabis growers have some  
11 connection to 3C-REN as a resource for identifying energy improvements.

12 3C-REN plans to utilize the network of relationships with agencies and agricultural  
13 customers described above to conduct outreach and marketing for the technical assistance program  
14 proposed in this application. 3C-REN’s listening sessions with agricultural sector stakeholders  
15 highlighted a lack of knowledge of energy efficiency measures and benefits. These knowledge  
16 gaps underline the need for technical assistance and the importance of reaching agricultural  
17 customers with the correct messaging to trigger program interest and enrollment.

18 The 2020 Report to the California Legislature on the Farmer Equity Act states that  
19 “Engagement and outreach with socially disadvantaged farmers depends on time, trust and an

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<sup>68</sup> Guidehouse, *2021 Energy Efficiency Potential Study, Attachment 2: Industrial/Agriculture Market Saturation Study*, April 16, 2021.

1 understanding of the different challenges in different regions of California.”<sup>69</sup> Given 3C-REN's  
2 ambitious energy savings goals across a diverse customer population, outreach strategies must be  
3 designed and implemented in partnership with trusted local and regional agencies and  
4 organizations.

5 ***Tactic: Deliver technical assistance to identify energy upgrades and complementary***  
6 ***programs***

7 According to the CPUC’s Potential and Goals Study of 2021,<sup>70</sup> the most common barriers  
8 to EE implementation for agricultural customers are,

9 concerns about disrupting production, concern about the initial cost of EE  
10 measures, and lack of knowledge of EE measures and benefits.

11  
12 Because agriculture is time and labor-intensive, growers often do not have the capacity to navigate  
13 the various programs or resources available. They also lack technical expertise related to energy  
14 efficiency upgrades and the cost-benefit analyses associated with value propositions.

15 3C-REN seeks to address these barriers by providing personalized, end-to-end technical  
16 assistance to help identify energy upgrade opportunities, provide guidance on the various programs  
17 that make upgrades more affordable and support customers in evaluating return on investment.  
18 Technical assistance and assessments may include analysis of baseline energy use and energy  
19 using systems, recommendations for energy efficiency upgrades, cost-benefit analysis, and  
20 connecting customers to, and helping them navigate, complementary programs that can help make  
21 a project more affordable through rebates or financing options.

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<sup>69</sup> California Department of Food and Agriculture, *2020 Report to the California Legislature on the Farmer Equity Act*, at 14. Last accessed December 2021 at <https://www.cdfa.ca.gov/farmerresources/pdfs/2020FarmerEquityReport.pdf>

<sup>70</sup> Guidehouse, *2021 Energy Efficiency Potential Study, Attachment 2: Industrial/Agriculture Market Saturation Study*, April 16, 2021.

1           As indicated by participants in 3C-REN’s listening sessions, irrigation and water pumping  
2 from deep wells are the biggest energy users in agriculture operations and offer the greatest  
3 opportunities to reduce water waste. In addition to identifying energy efficiency opportunities, 3C-  
4 REN will help agricultural customers address the water-energy nexus by identifying more efficient  
5 irrigation methods and water pumping technologies

6           It is anticipated that by providing concierge-type services, more agricultural customers will  
7 participate in rebate programs and make energy efficiency upgrades.<sup>71</sup>

8           ***Tactic: Address specialized energy and compliance needs of indoor agriculture/cannabis***  
9           ***in technical assessments***

10          The rapid growth of the cannabis subsector and associated increase in indoor growing  
11 facilities<sup>72</sup> poses unique needs and opportunities. Two of the three counties that comprise 3C-REN,  
12 Santa Barbara and Ventura, include an energy reduction or offset component in their cannabis  
13 business licensing requirements. Depending on the type of cannabis cultivation, operators are  
14 required to reduce energy use by between 15 and 100 percent. Operators have a number of ways  
15 to achieve the required reduction, including implementing energy efficiency upgrades, installing  
16 on-site renewables, or enrolling in an IOU or CCE 100 percent renewables plan.

17          As California experiences more extreme heat and cold, temperature regulation for indoor  
18 growing will require increased energy use. According to the 2021 Guidehouse-prepared  
19 Industrial/Agricultural Market Saturation Study, LED grow lights, energy efficient HVAC

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<sup>71</sup> Guidehouse, *2021 Energy Efficiency Potential Study, Attachment 2: Industrial/Agriculture Market Saturation Study*, April 16, 2021, at 16, Section 2.5 EE Program/Rebate Awareness and Participation.

<sup>72</sup> Ibid, pg. ix, Recommendations.

1 systems, and energy curtains measures have the highest average end use energy savings for  
2 greenhouses.<sup>73</sup>

3 3C-REN will leverage existing staff relationships to deliver benchmarking services,  
4 utilizing the Resource Innovation Institute’s PowerScore Agricultural Benchmarking platform,  
5 offer customized technical assistance to indoor agriculture producers , and encourage cannabis  
6 operators to pursue efficiency measures first to meet required energy reductions.

7 ***Tactic: Target smaller and socially disadvantaged agricultural customers for program***  
8 ***services***

9 3C-REN seeks to serve customers that are not reached by utility or other PA programs.  
10 Although “Hard to Reach” is not as clearly defined by the CPUC for agricultural customers,  
11 smaller and socially disadvantaged growers have fewer resources to explore energy efficiency  
12 programs and opportunities. 3C-REN’s listening sessions with agricultural sector stakeholders  
13 highlighted challenges in navigating the complex landscape of program options, as well as the high  
14 upfront cost of agricultural energy efficiency measures, exacerbated for small family farms  
15 operating on a thinner margin than larger commercial farming operations. The 2020 Report to the  
16 California Legislature on the Farmer Equity Act<sup>74</sup> similarly details challenges to accessing  
17 programs and resources by socially disadvantaged agricultural customers.

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<sup>73</sup> Guidehouse, *2021 Energy Efficiency Study, Attachment 2: Industrial/Agriculture Market Saturation Study*, April 16, 2021, at 8, Greenhouses.

<sup>74</sup> California Department of Food and Agriculture, *2020 Report to the California Legislature on the Farmer Equity Act*. Last accessed December 2021 at <https://www.cdfa.ca.gov/farmerresources/pdfs/2020FarmerEquityReport.pdf>

1           The population of small farms that could participate in energy upgrades in support of  
2 California’s climate goals is not insignificant. The United States Department of Agriculture  
3 (USDA) classifies farm size in terms of gross cash farm income (GCFI). The majority of the two  
4 million farms in the United States (approximately 89 percent) are small family farms, meaning a  
5 GCFI less than \$350,000.<sup>75</sup> In California, more than 71 percent of farms have less than \$49,999 in  
6 sales.<sup>76</sup> Farm size can also be categorized by acreage. In California, the average farm size is 348  
7 acres; however, 80 percent are less than 179 acres, and across all 70,521 farms in the state census  
8 the median farm size is 20 acres.<sup>77</sup> Within 3C-REN’s territory, 82 percent of farms (4,877 total  
9 farms), are smaller producers with less than 180 acres.

10           The 2020 Report to the California Legislature on the Farmer Equity Act details the benefits  
11 of technical assistance programs to socially disadvantaged agricultural customers, and the  
12 challenges of engaging these customers. The technical assistance program offering in this  
13 application is well suited to serve these customers. It will provide support to navigate existing and  
14 emerging programs; small or socially disadvantaged customers will be shepherded through the  
15 incentive and emerging technology landscape so that they can capitalize on energy savings  
16 opportunities. By utilizing the relationships established in the first tactic described above, 3C-REN

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<sup>75</sup> USDA defines family farm as “any farm where the majority of the business is owned by the principal operator—the person who is most responsible for making day-to-day decisions for the farm—and by individuals who are related to the principal operator.” America’s Diverse Family Farms, 2021 Edition. USDA Economic Research Service, December 2021. Pg. 4 Accessed January 2022 at <https://www.ers.usda.gov/webdocs/publications/102808/eib-231.pdf?v=4198.4>

<sup>76</sup> USDA 2017 Census of Agriculture. State Summary Highlights. Available online. Accessed January 2022 at [https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_US\\_State\\_Level/st99\\_2\\_0001\\_0001.pdf](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_US_State_Level/st99_2_0001_0001.pdf).

<sup>77</sup> Ibid.

- 1 will meet these customers where they are to provide specialized technical appropriate to their
- 2 operations.

1

2

## B. Agricultural Sector Coordination

3

**Table 32: Agriculture Sector-Specific Coordination**

Entity	Coordinating Activities
<b>Trade allies and contractors</b>	<ul style="list-style-type: none"> <li>• Establish relationships with local and regional market actors</li> <li>• Gather input from stakeholders to refine program offerings and workforce development activities</li> <li>• Coordinate with cross-cutting 3C-REN initiatives such as BPT to ensure agricultural sector is represented in offerings for workforce development</li> <li>• Provide outreach to educate market actors and promote programs and training opportunities</li> </ul>
<b>Industry associations and community based organizations</b>	<ul style="list-style-type: none"> <li>• Establish relationships with local and regional market actors</li> <li>• Gather input from stakeholders to refine program offerings</li> <li>• Collaborate to develop co-branded sector-specific outreach materials</li> <li>• Leverage sector-specific training opportunities and educational resources</li> <li>• Identify outreach channels to distribute resources to members</li> </ul>
<b>Other funding sources</b>	<ul style="list-style-type: none"> <li>• Identify sector-specific funding sources</li> <li>• Build relationships for continued coordination on layering opportunities</li> <li>• Develop living document with information on sector-specific funding opportunities</li> </ul>
<b>Water purveyors</b>	<ul style="list-style-type: none"> <li>• Identify water purveyors in the region, characterize their service territories, and establish relationships for further coordination</li> <li>• Gather input from water purveyor stakeholders to refine program offerings</li> <li>• Assess opportunities for layering sector-specific incentives</li> <li>• Collaborate to develop co-branded sector-specific outreach materials</li> <li>• Leverage sector-specific training opportunities and educational resources</li> <li>• Identify outreach channels to distribute resources to members</li> </ul>
<b>Other PAs in the region</b>	<ul style="list-style-type: none"> <li>• Identify offerings from other program administrators in the region with relevance to sector</li> <li>• Characterize eligibility criteria and participation pathways</li> <li>• Establish relationships with program managers for further coordination</li> <li>• Collaborate to develop approach for referring participants to optimize sector energy efficiency opportunities</li> </ul>

4

5

## C. Categorization

6

**Table 33: Agricultural Sector Program Categorization by Segment**

Program	Categorization by Segment
Agriculture Technical Assistance	Market Support

7

1                   **D.       Agricultural Sector Program Details**

2                   The Program Card for Agriculture Technical Assistance is provided in Appendix A. The  
3                   Agriculture Technical Assistance program is a new program in the market support segment; it  
4                   would not replace any other 3C-REN program. As discussed earlier in this section, Agriculture is  
5                   a vital part of the Tri-County Region’s geography and economy. Stakeholders have clearly  
6                   indicated a need for localized support to help navigate energy efficiency opportunities. This  
7                   nascent demand for improved customer education is further revealed by key findings and  
8                   recommendations from the 2021 Potential and Goals Study Attachment 2: Industrial/Agricultural  
9                   Market Saturation Study.

10                  It is challenging to serve rural customers, especially smaller farms and disadvantaged  
11                  farmers, cost-effectively. Providing technical assistance to this market is an ideal role for 3C-REN  
12                  given its mandate to serve HTR and underserved customers. This program approach aligns with  
13                  3C-REN’s strategic plan by providing opportunities to an underserved market, as well as 3C-  
14                  REN’s market support segment objectives to spur demand for energy efficiency products and  
15                  services. Moreover, addition of a new agricultural sector to 3C-REN’s portfolio offers an important  
16                  opportunity for synergies with its existing cross-cutting WE&T program, by building new  
17                  connections with workforce in this sector.

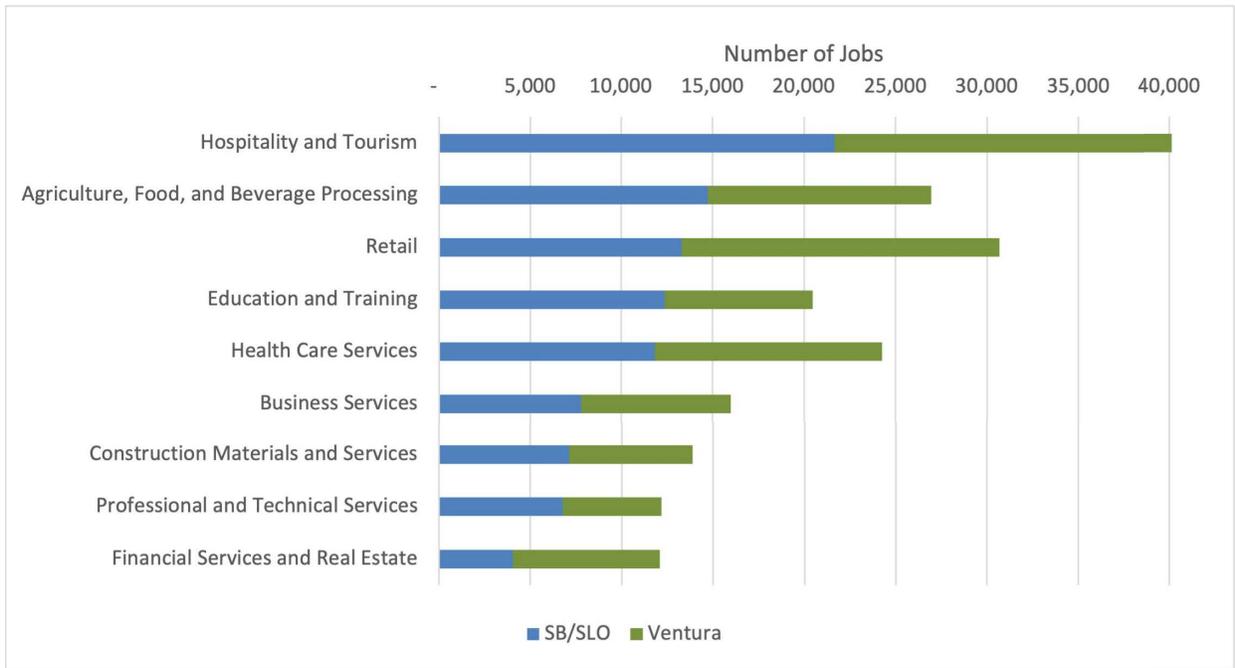
18                  This new program supports achievement of the state’s GHG emissions reductions and  
19                  energy efficiency goals by providing personalized local technical assistance to harvest drive  
20                  participation and savings in other PAs’ agricultural program offerings.

21                  Program-level coordination not applicable – see sector coordination section.

1           **V.    COMMERCIAL SECTOR (A. WATKINS AND C. PINGATORE)**

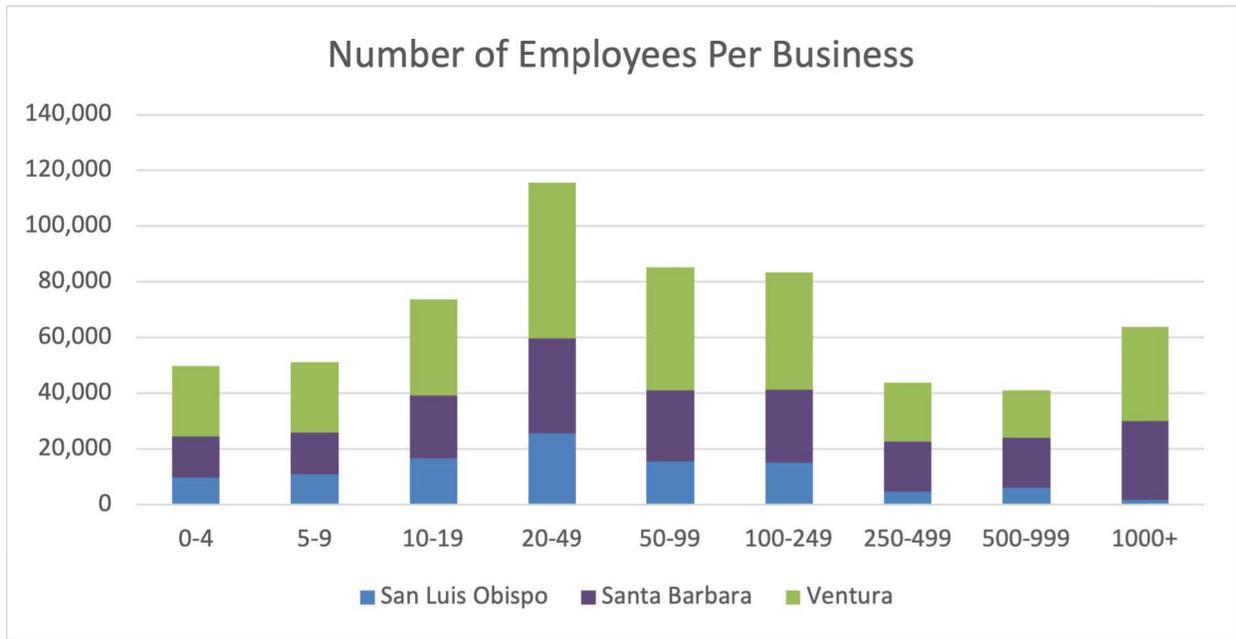
2           **A.    Introduction**

3           The commercial sector within the 3C-REN region is dominated by the hospitality and  
4 tourism, retail and agriculture, food and beverage processing, and education and training sectors,  
5 representing nearly 120,000 jobs in the region as shown in the figure below. The Central Coast  
6 region supports more than 600,000 jobs, nearly half of which are associated with businesses with  
7 less than 50 employees, and 17 percent with fewer than 10 employees, defined as very small and  
8 hard to reach.



9  
10 **Figure 1: Jobs by Sub-Market, Tri-County Region**

11           *Source: Regional Economic Analysis Profile, Sub Market, March 2015, Labor Market*  
12 *Information Division, [www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov)*  
13



1

2 **Figure 2: Numbers of Employee Per Business, Tri-County Region**

3 *Source: California Employment Development Department, Labor Market Information*  
 4 *Division, Size of Business Report by County, Q1 2021, accessed 1/3/2022.*

5

6 **Table 34: Number of Employees by Size Category, Tri-County Region**

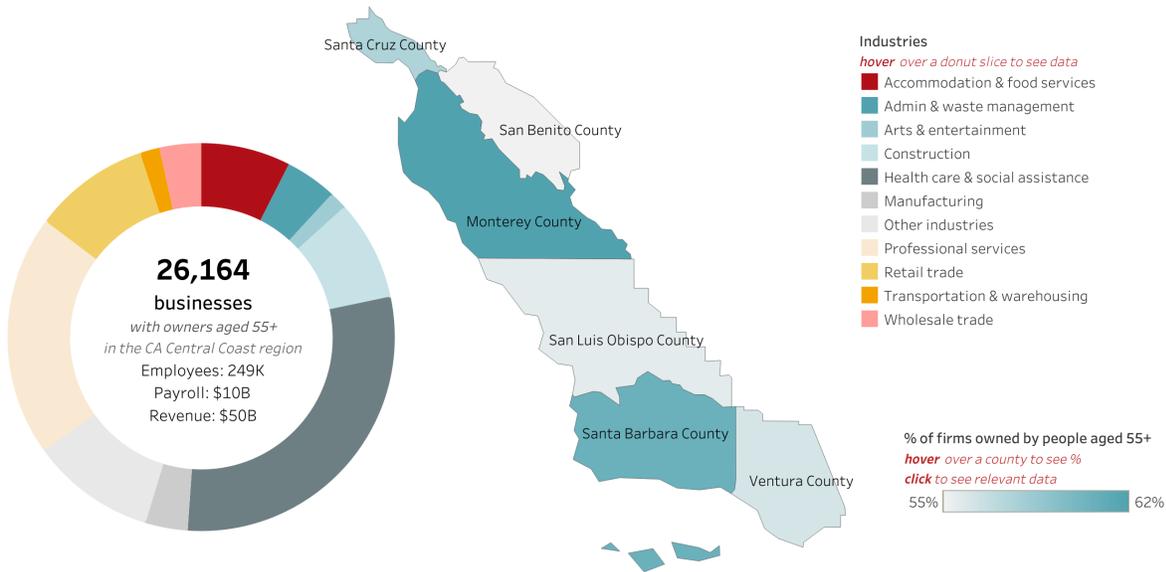
Number of Employees by Size Category  
 Classified by County for California  
 Third Quarter, 2020

Counties	Total	Number of Employees by Size Category								
		0-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000+
California Total	15,942,982	1,476,596	1,120,140	1,621,751	2,569,682	2,056,580	2,360,296	1,347,873	994,787	2,395,277
California by Percent		9%	7%	10%	16%	13%	15%	8%	6%	15%
3CREN Total	608,293	49,798	51,181	73,782	115,672	85,319	83,468	43,895	41,186	63,992
3CREN by Percent		8%	8%	12%	19%	14%	14%	7%	7%	11%
San Luis Obispo	106,643	9,926	10,928	16,780	25,774	15,526	15,099	4,785	6,110	1,715
Santa Barbara	202,157	14,708	14,986	22,516	33,856	25,582	26,282	17,939	17,967	28,321
Ventura	299,493	25,164	25,267	34,486	56,042	44,211	42,087	21,171	17,109	33,956
Under10 employees	100,979	17%								
Under 50 per business	290,433	48%								

Employment Development Department  
 Labor Market Information Division

7

**Baby boomers own half of the privately held businesses with employees in the CA Central Coast region**



*Note: The Census ABS data source at the state level is based on the number of respondent firms while the QCEW at the county level is based on percent of establishments. The data may not be available or accurate for some counties, especially those with small populations. See methodology for further details.*

**{ Project Equity }**

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[Methodology >](#) [Source notes >](#)

1  
2 **Figure 3: Business Ownership, Tri-County Region**

3  
4 Commercial 3C-REN customers – particularly small- and medium-sized or Hard to Reach  
5 businesses – have limited options for incentives and technical assistance. Green Business Programs  
6 provide limited educational opportunities through certification initiatives, but the handful of utility  
7 offerings focused on this HTR segment have not been popular in the region. Statewide programs  
8 are usually designed to serve enterprises within a specific industry or which have high energy  
9 usage.

1           The dearth of commercial program options and low program uptake was confirmed by  
2 stakeholder feedback from a CAEECC working group<sup>78</sup> (either directly through comments  
3 provided<sup>79</sup> or indirectly by a lack of engagement).<sup>80</sup> This weakness is not unique to 3C-REN  
4 territory: a market characterization report for BayREN reiterated that the top barriers for EE  
5 commercial participation include “customer (and advisor) knowledgeability about EE, EE option  
6 availability, and having the time available to evaluate EE options.”<sup>81</sup>  
7 3C-REN’s Commercial Marketplace program will address barriers through a comprehensive,  
8 multi-faceted, offering that includes incentives, financing support, technical and program  
9 assistance, and different participation pathways. The program will have two main focuses, energy  
10 savings through Green Business certification/partnership and an NMEC offering.

11           The Green Business Program works with a range of business types, including offices,  
12 lodging, and auto repair. The NMEC offering will engage with any business that demonstrates  
13 notable savings potential, but will focus on Hard to Reach (HTR) commercial customers, as  
14 defined by the CPUC<sup>82</sup> as those who do not have easy access to program information or generally  
15 do not participate in energy efficiency programs due to a combination of the following barriers:

- 16           • Language – Primary language spoken is other than English

---

<sup>78</sup> Noted by CAEECC Small-to-Medium Business (SMB) Working Group on December 17th, 2020.

<sup>79</sup> Input from a building contractor organization via Listening Session survey stated a “lack of energy reducing measures available”

<sup>80</sup> 3C-REN hosted a commercial feedback session on July 21, 2021 that no one attended; however feedback was captured in a survey that is referenced in the following content.

<sup>81</sup> BayREN SMB Non-Deemed Market Characterization Report - Final, available here: <http://www.calmac.org/allpubs.asp>

<sup>82</sup> Resolution G-3497 (pg. 63-64) and Decision 18-05-041j (pg. 41-53)

- 1 • Geographic – Businesses or homes in areas other than the United States Office of  
2 Management and Budget Combined Statistical Areas of the San Francisco Bay Area,  
3 the Greater Los Angeles Area and the Greater Sacramento Area or the Office of  
4 Management and Budget metropolitan statistical areas of San Diego County
- 5 • Business Size – Less than ten employees and/or classified as Very Small (Customers  
6 whose annual electric demand is less than 20 kilowatts or whose annual gas  
7 consumption is less than 10,000 therm, or both)
- 8 • Leased or Rented Facilities – Investments would be made in improvements to a  
9 facility that is rented or leased by a participating business customer (“split incentive”)

10 The definition further states that businesses have to meet either the geographic criterion  
11 plus one other or any three non-geographic criteria. In 3C-REN's territory, two of the three counties  
12 (Santa Barbara and San Luis Obispo) meet geographic requirements; in all three territories many  
13 businesses lease their facilities<sup>83</sup> and/or would be considered small.

14 Given these characteristics there is a potentially large regional need, likely amplified by  
15 the economic hardship caused by COVID-19, as well as small chain issues and inflation . Given  
16 that a large percentage of businesses in the region are owned by people over the age of 55, planning  
17 to retire, EE investment time horizons may be truncated.

18

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<sup>83</sup> As indicated on Joint Green Business stakeholder engagement call held with 3C-REN to inform program ideation for this filing.

1

**B. Commercial Sector Goals, Objectives, and Strategies**

2 **Table 35: Commercial Sector – Goals, Objectives, and Strategies**

Goal	Objective	Strategy	Tactics
<p>I. Reach 15 percent of HTR businesses with information about the benefits of commercial energy savings and achieve an average 10 percent energy savings for each project that participates in NMEC pathway.</p>	<p>1. Increase the number of Green Business Program (GBP) certified enterprises.</p>	<p>A. Leverage partnerships with GBPs to reach commercial customers, establish referral mechanisms, and increase energy service offerings of the GBPs.</p>	<p>a) Provide funding to GBPs to increase their business recruitment capacities, expand services, and the like                      b) Increase capacity by training GBP staff and/or utilizing WE&amp;T participants to conduct audits.                      c) Coach GBP participants on energy programs/financing opportunities following energy audits to achieve holistic and bundled solutions.                      d) Work with GBPs to garner feedback on core and elective measures to increase EE savings potential.</p>
	<p>2. Increase GBP referrals to Commercial Marketplace program.</p> <p>3. Commercial Marketplace program serves an average of 90 businesses annually.</p>	<p>B. Reach commercial customers by working with GBPs and other organizations that serve businesses and commercial properties, leveraging contractor relationships through the BPT and EAS programs.</p>	<p>e) GBPs refer businesses with high energy savings potential to Commercial NMEC program.                      f) Investigate increasing the capacity to provide more comprehensive energy audits through earmarked funding with local firm.                      g) Strategize with GBPs to improve their access to HTR commercial markets (including outreach in Spanish).                      h) Conduct outreach with local/regional partners regarding Commercial participation in concert with other energy upgrade opportunities.</p>
		<p>C. Offer incentive payments for energy improvements through population NMEC program focusing on HTR business customers.</p>	<p>i) Design program incentives to dramatically reduce the upfront cost of EE and high-performance measures in HTR markets.                      j) Design program with financing in mind.                      k) Focus on commercial customers with high energy/peak energy usage by employing data from utilities, CCEs, and GBP participants.                      l) Consider program design that targets peak hour savings.                      m) Create pathways for local contractors (with potential connections to HTR communities/businesses) to participate in program.</p>

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**1. Goal**

Goal I. Reach 15 percent of HTR businesses with information about the benefits of commercial energy savings and achieve an average of 10 percent energy savings for each project that participates in NMEC pathway.

**2. Objectives**

3C-REN has identified the following objectives to achieve its commercial sector goals:

- 1. Increase the number of businesses certified by local Green Business Programs .
- 2. Engage local GBPs to refer businesses to Commercial Marketplace program.
- 3. Commercial Marketplace program serves an average of 90 businesses annually.

To achieve these objectives and support the overall sector goal outlined above, 3C-REN proposes the following strategies and tactics.

**3. Strategies**

**a. Strategy I-A. Leverage partnerships with local GBPs to reach commercial customers, establish referral mechanisms, and increase energy service offerings of the GBPs**

The California Green Business Network (CAGBN) is a statewide organization of locally administered Green Business certification programs, in partnership with local and statewide government agencies, utilities, and other entities. In 3C-REN territory, GBPs include San Luis Obispo County, City of Ventura, Santa Barbara County and Ventura County Regional Energy Alliance. 3C-REN’s implementing counties have been active partners with these GBPs for more than six years, providing referrals, review of certification criteria, and other support.

GBPs have a well-established process to develop and implement business certification criteria including associated with energy saving measures. Despite regional and statewide partnerships, GBPs are resource strained, often lacking the time, funds, or understanding to implement the energy saving measures required for certification.

1           3C-REN proposes the following tactics and activities to increase the number of GBP-  
2 certified businesses and commercial customer awareness of and engagement in available  
3 programs.

4           ***Tactic: Provide funding to local GBPs to increase their business recruitment capacities,***  
5           ***expand services, etc.***

6           Green Business Programs are well-established tools for enterprises, but they are resource  
7 strained, impacting their ability to recruit and fully certify.<sup>84</sup> For example, one county’s program  
8 is managed by a part-time staff person. By providing financially supporting staff capacity, 3C-  
9 REN will enable the GBPs to meet mutual commercial energy efficiency goals while enhancing  
10 key partnerships. Funds will be used to support community outreach, program administration, data  
11 collection, and other tactics.

12           3C-REN is well positioned to support GBP expansion based on established relationships ,  
13 with planned metrics to track the impacts. GBPs and 3C-REN have a shared focus on equity and  
14 inclusivity efforts to level the playing field for regions and businesses that have historically been  
15 left out of environmental initiatives.

16           ***Tactic: Increase the capacity for local energy audits by training GBP staff to***  
17           ***conduct energy audits and/or utilizing WE&T participants to conduct audits***

18           GBPs typically rely on partners, such as IOU staff, to conduct energy audits needed for  
19 certification. Because these partners are often located far away from 3C-REN's territory, it is more  
20 cost effective to wait to conduct audits until they can be grouped, thereby delaying in certification.  
21 Shifting this role to a locally available pool of auditors will streamline the process.

---

<sup>84</sup> A concern raised by GBP staff on several occasions, such as the Joint Green Business stakeholder engagement call held with 3C-REN to inform program ideation for this filing.

1 Training will be straightforward, as basic audits check for a limited number of vetted  
2 measures. Providing expedient audits will improve businesses' participation experience and  
3 maintain momentum towards certification and energy upgrades. If participants from 3C-REN's  
4 BPT program are utilized, this will have added local workforce benefits in line with broader goals.

5 ***Tactic: Provide coaching to GBP participants on the local landscape of energy***  
6 ***programs/financing opportunities following energy audits in order to achieve holistic***  
7 ***and bundled solutions***

8 GBP certification is the ideal time to support businesses to evaluate potentially beneficial  
9 EE and related financing programs (such as GoGreen and On-Bill). As the GBP identifies energy  
10 upgrade opportunities, other programs may support project completion and harvesting of broader  
11 energy savings. Coaching may involve sharing a description of applicable programs, or consist of  
12 hand-holding, such as conveying how the service would help their business, connecting them to  
13 the right program staff, or helping complete necessary paperwork.

14 3C-REN's connections and partnerships with other PAs, CCEs, nonprofits, and other  
15 agencies make it well suited to coach. As discussed throughout this application, 3C-REN aims to  
16 identify programs, incentives, and financing opportunities for local customers whenever they will  
17 support energy efficiency and resiliency project implementation.

18 ***Tactic: Work with local GBPs and provide feedback on core and elective measures to***  
19 ***increase EE savings potential***

20 Energy savings associated with GBP certification are achieved by completing checklist  
21 measures, reflecting core (required) and elective (optional) actions. Checklists are revised  
22 periodically by the Green Business Network. 3C-REN can help optimize energy efficiency  
23 measures as part of these updates, with other partners' interests considered. including by utilizing  
24 input from the NMEC implementer. 3C-REN experience with energy efficiency programs and  
25 knowledge of opportunities will support development of locally comprehensive checklists.

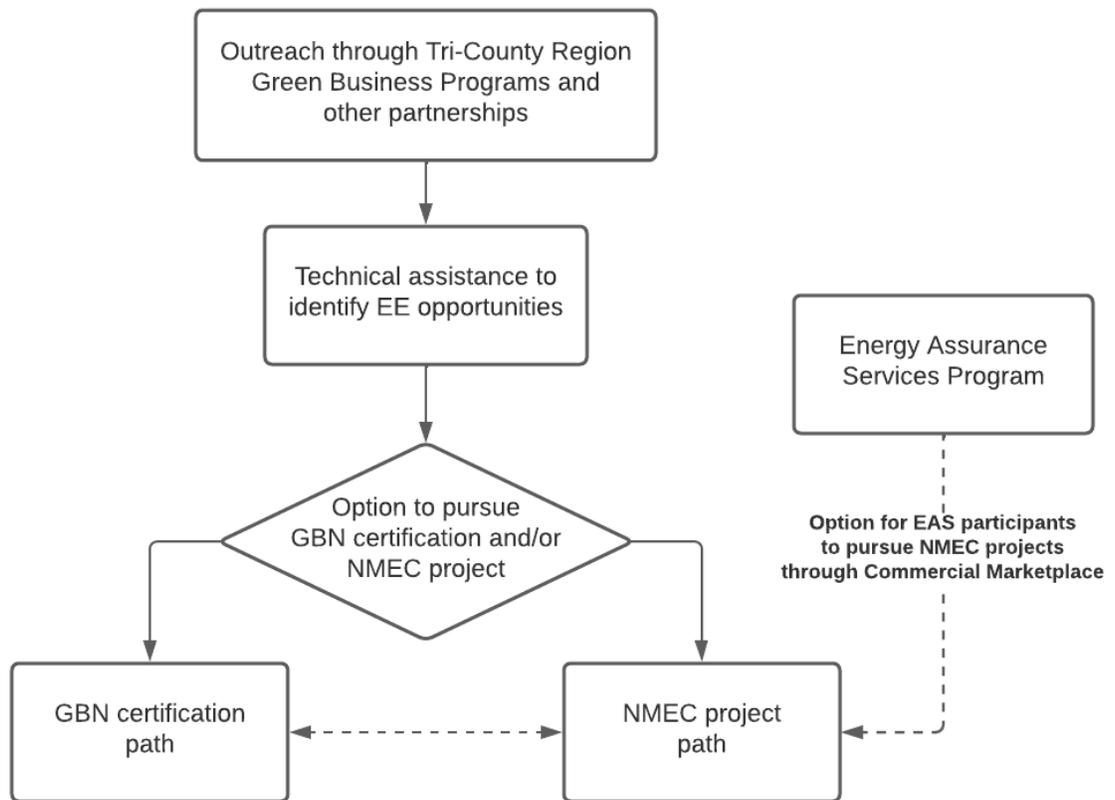
1 To recognize businesses that achieve measurable energy savings through the Commercial  
2 Marketplace NMEC pathway (or another verifiable energy saving program), 3C-REN will explore  
3 methods to include measured energy savings on GBP checklists. The GBP has a tiered certification  
4 system that recognizes green businesses (standard certification) and “innovators” that meet  
5 additional criteria. As the GBP acknowledges sustainability measures appropriate for a diverse  
6 portfolio of businesses it may consider metered energy savings as a valuable criterion which could  
7 open the door to innovator status for businesses that make especially comprehensive EE  
8 improvements.

9 **b. Strategy I-B. Reach commercial customers to participate in 3C-REN offerings by**  
10 **working with local GBPs and other organizations that serve**  
11 **businesses/commercial properties, leveraging relationships with contractors**  
12 **through the BPT program, and leveraging 3C-REN’s EAS program**

13 Awareness and adoption of EE programs are ongoing challenges. Customers are wary of  
14 costs, as well as the potential for intrusive questions during enrollment processes. Many are  
15 ignorant that there are programs from which they can benefit. The ‘split incentive’ barrier, a  
16 business leasing a facility owned by someone else, is especially prominent in the commercial  
17 sector, particularly among HTR enterprises. As with many industries, word-of-mouth promotion  
18 by trusted partners is one of the most effective ways to increase public awareness, trust, and  
19 participation. In addition to outreach through Green Business Programs and other partners, another  
20 entry pathway into the Commercial Marketplace program is through 3C-REN’s proposed Energy  
21 Assurance Services cross-cutting program for commercial and public facilities. EAS is a non-  
22 resource market support segment program designed to encourage comprehensive load  
23 management through technical assistance, assessments and benchmarking, and referrals to  
24 complementary programs. In addition to other PA programs and non-energy efficiency  
25 opportunities, such as through DERs, the NMEC pathway of the Commercial Marketplace

1 program will be a referral option for eligible customers from the EAS program, as shown in the  
2 figure below.

### Commercial Marketplace Program GBN and NMEC participation pathways and entry from EAS program



3  
4 **Figure 4: Commercial Marketplace Program participation pathways**

5  
6 The following tactics and activities are proposed to support 3C-REN's sector goal to reach  
7 businesses about program benefits and achieve quantitative energy savings in alignment with  
8 equity segment and portfolio strategies.

1           ***Tactic: GBPs refer businesses with high energy savings potential to Commercial NMEC***  
2           ***program***

3           GBPs are ideally positioned to identify HTR and other businesses with high energy savings  
4 potential and refer them to the Commercial NMEC program, regardless of whether the enterprise  
5 pursues or achieves certification. With additional capacity from the influx of 3C-REN funding  
6 described in the first tactic GBPs may identify NMEC program candidates in a variety of ways.  
7 Business that are being certified are prime prospects; GBP staff or partner auditors can review  
8 audits and flag those with EE improvement opportunities; participants may elect to pursue NMEC  
9 savings to achieve “innovator” status.

10           GBPs may also contact previously certified businesses or those that explored certification.  
11 GBP staff often develop relationships with participating businesses, and may remember, or have  
12 documented, enterprises that wanted energy upgrades. GBP staff may also encounter businesses  
13 that would benefit from energy upgrades but are not interested in certification. GBP staff trained  
14 in basic energy audits, as outlined under the previous strategy, will be prepared to identify these  
15 businesses and act as Commercial Marketplace program ambassadors.

16           Referral methods may differ depending on energy upgrade needs and the NMEC project  
17 pathway’s final design. The ultimate goal will be to connect businesses to participating contractors  
18 that can deliver energy savings at competitive pricing. GBPs may use a number of tools to generate  
19 interest in the NMEC path and achieve referral goals, including direct support to consider energy  
20 upgrade benefits, development of (or sharing of other) case studies from NMEC program  
21 participants and achieved energy and monetary savings.

1            *Tactic: Investigate increasing the capacity for providing more comprehensive energy*  
2            *audits through earmarked funding with local firm*

3            GBP certification is based on a standard list of industry-specific measures that participants  
4            implement, designed to be applicable to most businesses at low- or no-cost. High-level energy  
5            audits are often conducted to identify suitable measures.

6            Not all businesses have comparable operations, even within a given industry. GBP’s high-  
7            level certification approach may miss deeper energy saving opportunities. By partnering with local  
8            firms that can provide in-depth energy assessments, businesses with high energy savings potential  
9            can be more readily identified and connected to the Commercial Marketplace NMEC project path.  
10          Assessments will be delivered as a simple and lay-person-friendly report outlining kW and  
11          kilowatt-hour savings, payback periods that reflect available incentives, and non-energy benefits,  
12          a valuable service for businesses that may be otherwise unaware of these opportunities. Tactic:  
13          Strategize with GBPs to improve their reach into HTR commercial markets (including outreach in  
14          Spanish)

15          Many HTR businesses are unaware of GBP offerings, with marketing efforts hampered by  
16          capacity limitations. 3C-REN will provide resources to support GBP in identifying HTR  
17          businesses, developing marketing materials in different languages, buying ads, and developing and  
18          sending mailers to HTR enterprises. This effort aligns with CAGBN’s goals to increase service to  
19          this population. Tactic: Conduct outreach with local/regional partners regarding Commercial  
20          participation in concert with other energy upgrade opportunities

21          Overcoming the barriers outlined throughout this narrative, bolstered by feedback gathered  
22          from a July 2021 stakeholder survey,<sup>85</sup> through effective outreach to particularly HTR businesses

---

<sup>85</sup> 3C-REN Business Plan Survey results, July 2021.

1 is a priority. 3C-REN will explore new collaborations and leverage existing ones with local and  
2 regional organizations to support this tactic, including CCEs, CBOs, utilities, The Switch Is On,  
3 Chambers of Commerce, economic development organizations, and the like. Marketing will  
4 include deployment of case studies as well as email and social media campaigns developed in  
5 conjunction with or provided as templates to partners. Joint messaging and achievement of  
6 overlapping goals, such as through complementary EE offerings, will be nurtured.

7 **c. Strategy I-C. Offer incentive payments for energy improvements through**  
8 **population NMEC program targeting HTR business customers**

9 Commercial 3C-REN customers have untapped energy savings potential, including “low  
10 hanging fruit” that have been sunset from deemed measure offerings.<sup>86</sup> HTRs, by definition, are  
11 more likely to have missed out on these and other EE offerings. This presents an opportunity to  
12 address equity issues – a priority for 3C-REN as well as California<sup>87</sup> – in addition to securing  
13 energy savings. By implementing a comprehensive offering through the NMEC pathway and  
14 focusing outreach on underserved or high-savings-potential customers, multiple benefits can be  
15 realized through one central effort. In addition, the NMEC approach showcases a clear and direct  
16 relationship between a business’s efforts and associated benefits, adding public value to this  
17 offering.

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<sup>86</sup> 3C-REN Business Plan Survey results, July 2021.

<sup>87</sup> Protest of Small Business Utility Advocates to the Energy Efficiency Annual Budget Advice Letters for Program Year 2021 at 2-3. Filed October 1, 2020.

1           ***Tactic: Design program incentives to dramatically reduce the upfront cost of EE and***  
2           ***high-performance measures in HTR markets***

3           HTR businesses, by definition, are less likely to participate in incentive programs because  
4 of location, capital capacity, language, and size barriers. Offering large incentives for contractors  
5 to serve HTR businesses through the population NMEC program will create a pathway to capture  
6 stranded energy savings.<sup>88</sup> In combination with coaching and free, in-depth, audits provided  
7 through Green Business Programs, high quality work and lower project costs with short payback  
8 periods will drive HTR business participation. Participants will be referred to up-front financing  
9 options such as GoGreen and On-Bill Financing. **Tactic: Design program with financing in mind**

10           3C-REN will identify creative financing mechanisms that can mitigate challenges  
11 associated with the delayed incentive payment structures often associated with population NMEC  
12 programs. 3C-REN is exploring applying a residential single-family program approach to the  
13 Commercial Marketplace, as well as partnering with an entity to offer financing, program design  
14 elements that decrease financing burdens. For instance, in the single-family population NMEC  
15 program, 3C-REN plans to pay based on quarterly, rather than annual, energy savings, which will  
16 lower a barrier to participation by smaller contractors that might otherwise be unable or unwilling  
17 to wait a year to receive incentive payments.

18           ***Tactic: Target commercial customers with high energy/ peak energy usage by using data***  
19           ***from utilities, CCEs, and GBP participants***

20           As discussed previously, identifying businesses with large energy savings potential is  
21 difficult. By obtaining data from the entities that collect it, 3C-REN and its Commercial

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<sup>88</sup> This is supported by feedback from the 3C-REN Business Plan Survey that was conducted to inform this application. For example, a building contractor organization noted “direct install programs with reduced cost and financed measures” as an idea to address inequities among underserved audiences.

1 Marketplace program partners will be able to hone their efforts. 3C-REN or its technical assistance  
2 partner firm will analyze available data to identify high energy users, as described under portfolio  
3 strategies for Savings Forecasting and Quantification Methods. Other approaches to finding high  
4 peak users will be explored, such as partnering with SMB organizations and requesting referrals  
5 from utility/REN customer representatives. **Tactic:** Consider program design  
6 that targets peak hour savings

7 Reducing peak energy use is a priority for California and the 3C-REN region. Businesses  
8 that are peak energy users could be provided higher incentives for kWh reductions, similar to  
9 residential HTR programs. Enhanced payments for peak hour reductions will drive investment in  
10 enabling equipment.

11 Focusing on peak energy usage as part of a NMEC program is not new. Marin Clean  
12 Energy’s commercial program uses customer data to identify businesses that have high peak loads.

13 ***Tactic: Create pathways for local contractors (with potential connections to HTR***  
14 ***communities/businesses) to participate in the program***

15 Commercial Marketplace program participants that do not have go-to contractors may need  
16 referrals to implement incentivized upgrades, presenting an opportunity to tap a labor pool already  
17 involved with 3C-REN through the BPT program while supporting broader WE&T goals. Creation  
18 of this pathway may entail focused outreach to contractors through existing 3C-REN, GBP, and  
19 partner agency networks; priority hiring and/or subsidized labor rates for BPT participants and/or  
20 contractors that are located in the region or service HTR businesses; and providing contractors  
21 with the training and capacity (e.g., financing) necessary to meet project needs particularly related  
22 to the NMEC project pathway.

1                   **C.       Commercial Sector Coordination**

2                   3C-REN will coordinate closely with Green Business Program representatives as well as  
3 Chambers of Commerce, affinity groups, and community-based organizations that focus on small  
4 businesses. Building Performance Training and Energy Code Connect (ECC) will be leveraged to  
5 explore the potential for synergies between programs and to ensure that commercial energy  
6 efficiency, decarbonization, and resiliency needs are represented in workforce development  
7 offerings. 3C-REN will establish connections with other PA program managers as needed.

8                   **D.       Categorization**

9                   **Table 36: Commercial Sector Program Categorization by Segment**

Program	Categorization by Segment
Commercial Marketplace	Equity

10  
11                   **E.       Commercial Sector Program Details**

12                   The 2019 California Energy Efficiency Action Plan found that to achieve California’s  
13 GHG emission reduction and energy efficiency goals new programs and more spirited activity is  
14 needed, especially in the residential and commercial sectors.<sup>89,90</sup> Stakeholders suggest that the Tri-  
15 County Region’s commercial sector, particularly small- and medium-sized businesses, is  
16 underserved by traditional energy efficiency programs even though there are savings opportunities.  
17 These customers are difficult to serve cost-effectively and therefore aligned with RENs’ mission  
18 to assist HTR populations.

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<sup>89</sup> 2019 California Energy Efficiency Action Plan at 5. Accessed at <https://www.energy.ca.gov/filebrowser/download/1900>. “Redesigning and introducing new programs into the market may contribute the savings needed to reach the 2030 goal” for doubling energy efficiency savings in the state.

<sup>90</sup> Ibid., p.66-67. For both electricity and natural gas efficiency targets, most savings are expected to come from the residential and commercial sectors.

1 The Commercial Marketplace program advances achievement of State goals by offering a  
2 NMEC project pathway that can flexibly capture savings from a variety of commercial facility and  
3 project types, combined with locally-focused outreach and assistance to secure beneficial  
4 outcomes for HTR businesses, in alignment with 3C-REN’s mission and equity segment  
5 objectives. 3REN’s proposal reflects a new equity segment initiative and would not replace other  
6 3C-REN offerings. With the addition of this program, 3C-REN will expand its portfolio to include  
7 the full scope of customers identified through HTR criteria. The Program Card for the Commercial  
8 Marketplace is provided in Appendix A.

9 This program is in the best interest of ratepayers, helping commercial customers participate  
10 in and benefit from energy efficiency while cultivating regional economic activity and vitality.  
11 Supporting small- and medium-sized enterprises has the potential to benefit not just business  
12 owners but their employees, customers, the energy efficiency workforce, and surrounding  
13 communities, aligning with 3C-REN’s vision to build a resilient energy ecosystem that supports  
14 achievement of Federal, State, and local climate goals through delivery of integrated energy saving  
15 and decarbonization programs that empower a sustainable local economy and reduce social  
16 disparities.

17 Program-specific coordination not applicable – see sector coordination section.

18 **VI. CROSS-CUTTING SECTOR**

19 3C-REN’s cross-cutting sector includes three distinct sub-sector components and their  
20 respective program offerings, as described below and in the sections that follow:

21 **Table 37: Cross-cutting Subsector Components & Programs**

Subsector	Program
Codes & Standards (C&S)	Energy Code Connect (ECC)
Workforce Education & Training (WE&T)	Building Performance Training (BPT)
Commercial & Public Facilities	Energy Assurance Services (EAS)

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**A. Codes & Standards Goals, Objectives, and Strategies (J. Garbayo and M. Topey)**

The most significant barriers to effective code compliance and enforcement were identified through a 2019 Market Needs Assessment Survey conducted by 3C-REN, which gathered feedback from local stakeholders to support development of the Codes & Standards program. The survey found that there is a gap in energy code implementation and coordination between the design process and building construction. Survey-based insights guided the initial years of 3C-REN service delivery and informed proposed programs for this business plan cycle.

Through the survey and other means, 3C-REN identified four key drivers that limit compliance with energy codes and standards: 1) low and inconsistent comprehension of codes and standards, 2) real and/or perceived compliance costs, 3) lackluster enforcement from building departments due to limited staffing or interest, and 4) limited availability of codes and standards training and support in the Tri-County Region.

3C-REN's Codes & Standards sector offerings are designed to address these barriers with a deep understanding of local conditions and informed technical expertise from program partners. 3C-REN will apply lessons learned from its first three years of program delivery and the nearly 600 individuals who have participated in Codes & Standards events. 3C-REN will continue to facilitate compliance with codes by creating a host of easily utilized services tailored to architects and engineers, plan checkers, field inspectors, builders, raters, and emerging technology developers.

3C-REN has developed partnerships with manufacturers, suppliers, and building departments to widely distribute program offerings and materials regarding energy code requirements and compliance. 3C-REN will build on its past success with trainings, forums, and

1 technical support delivered through the Energy Code Coach. Demand for these services has been  
2 demonstrated by increased participation year-over-year over the past three years, with training and  
3 forum events climbing from three in 2019 to 28 in 2021, despite COVID-19 impacts in 2020 and  
4 2021. Additionally, Codes & Standards services will expand into new areas of opportunity,  
5 including reach code support.

6 3C-REN will continue to work with BayREN, SoCalREN, and other RENs and participate  
7 in the Statewide C&S working group to refine and hone regional efforts and help inform the  
8 Statewide conversation about how to effectively improve code compliance and enforcement.

9 3C-REN's Codes & Standards goals, objectives, strategies, and tactics are shown in the  
10 table below and detailed in the sections that follow.

1

2 **Table 38: 3C-REN Cross-cutting C&S – Goals, Objectives, Strategies, and Tactics**

Goal	Objective	Strategy	Tactic
<p>Goal I. Establish the Tri-County Region as a leader in California Energy Code and Green Building Standards compliance and enforcement by providing regional assistance to 28 jurisdictions and hundreds of private sector companies.</p>	<p>Objective 1: Engage organizations to ensure 50 percent of jurisdictions participate in Codes &amp; Standards services and increase private sector and nonprofit participation by 10 percent annually.</p>	<p>Strategy 1: Provide flexible and nimble support for building departments and the private sector for codes and standards comprehension and enforcement.</p>	<p>a. Identify and leverage existing tools and practices for energy code compliance, enforcement, and comprehension.</p>
	<p>Objective 2: Expand the Energy Code Coach reach to provide ongoing technical assistance to 40 percent of tri-county jurisdictions and increase private sector and nonprofit participation by 10 percent a year</p>	<p>Strategy 2: Provide technical assistance to support compliance and enforcement of codes and standards</p>	<p>b. Develop tools, resources, educational offerings, support, and practices for compliance and application of codes &amp; standards.</p>
	<p>Objective 3: Serve 18 percent of jurisdictions with technical assistance to develop and adopt reach codes for each energy code cycle.</p>	<p>Strategy 3: Provide technical assistance to jurisdictional staff across the region to develop and adopt reach codes and updates</p>	<p>c. Address knowledge gaps, training needs, and preferences.  d. Host trainings and educational events for jurisdiction staff and building professionals.  e. Develop models that help cities evaluate reach codes that work for their specific jurisdiction  f. Guide jurisdictions through the reach code adoption process  g. Coordinate an outreach campaign for each jurisdiction to keep the public informed and engaged throughout the development and adoption process.</p>

3

4 ***I. Goal***

5 Goal I. Establish the Tri-County Region as a leader in California Energy Code and Green  
6 Building Standards compliance and enforcement by providing regional assistance to 28  
7 jurisdictions and hundreds of private sector companies.



1 does not have the capacity to address; 42 percent of public agency respondents believe that their  
2 jurisdiction is unable to enforce energy code and CalGreen Building Standards.

3 3C-REN has the experience and connections to address these challenges. 3C-REN has  
4 engaged industry stakeholders to develop materials unique to key market actors about the  
5 importance, benefits, and legality of Title 24 compliance, with a focus on educating permit  
6 applicants on the value of compliance. For example, 3C-REN developed customized training for  
7 Santa Barbara and San Luis Obispo building departments to address their specific code compliance  
8 needs, covering topics such as energy code and CalGreen building standards requirements; energy  
9 modeling and HERS verification; ACCA manuals J, D, and S; Certified Energy Analyst  
10 certification exams in partnership with California Association of Building Energy Consultants  
11 (CABEC); and heat pump technologies and assembly installation overviews.

12 To bring consistency and reduce the burden of interpretation, the Energy Code Coach acts  
13 as a resource to public agencies and private sector stakeholders. Rather than forcing building  
14 department staff to retain comprehensive knowledge of Title 24 or spend significant time  
15 navigating the CEC and Energy Code Ace website researching a question, the Energy Code Coach  
16 offers free and efficient Title 24 assistance, remotely, at a building department counter, or in the  
17 field.

18 3C-REN and its Energy Code Coach worked with County of Ventura Building Department  
19 staff to develop customized resources and provide guidance for building professionals constructing  
20 accessory dwelling units. To promulgate messaging, in coordination with local jurisdictions,  
21 community organizations, and business groups, 3C-REN created handouts, webpages, press  
22 releases, blurbs to include in newsletters, training materials, and applications for business licenses,  
23 permits and rebates.

1           3C-REN continuously addresses code compliance issues, delivering information through  
2 trainings, regional forums, and Energy Code Coach activities on diverse topics that include  
3 modeling, compliance forms, and heat pump requirement. Future trainings will cover Energy  
4 Code, Title 24, Heat and Energy Recovery ventilation, and CALGreen Requirements for  
5 Residential and Nonresidential Projects. 3C-REN will partner with CalCerts and CABEC to bring  
6 these organizations’ offerings to the region.

7           By generating awareness of the benefits of code compliance, 3C-REN can shift market  
8 actor perceptions away from seeing it as a burden, to viewing it as a critical component of smart  
9 building practices.

10           **b. Strategy 2: Provide technical assistance to support compliance and enforcement**  
11           **of existing codes and standards**

12           Public and private sector stakeholders have indicated that the major barriers to code  
13 compliance or enforcement is each other. For example, public agency staff members assume that  
14 designers are unaware or unwilling to comply with code requirements, while designers believe that  
15 plan examiners do not understand code intent.

16           To address these barriers, 3C-REN will utilize Energy Code Coaches to offer technical  
17 assistance over email, phone, text and in-the-field; conduct annual roadshows to each jurisdiction  
18 to update staff and third-party contractors on available technical assistance; and evaluate the types  
19 of questions and requests received to modify training and resources to address frequently asked  
20 items. Energy Code Coaches have developed 10 courses, delivered to building professionals over  
21 virtual platforms and through virtual roadshows, which provide meet-and-greet opportunities for  
22 Coaches and building department staff.

23           3C-REN has established regular communications with stakeholder groups, focusing on  
24 designers, contractors, and building department staff. By strengthening its two-way

1 communication channels, 3C-REN has gathered detailed and representative data to finetune  
2 regional energy efficiency goals. 3C-REN serves as a trusted partner to regional building  
3 stakeholders and can leverage its relationships to evaluate partner data to shape and drive  
4 engagement in regional trainings.

5 **c. Strategy 3: Provide technical assistance to jurisdictional staff across the region**  
6 **to develop and adopt reach codes and future standards updates**

7 Reach codes are cost-effective and more stringent local requirements than the statewide  
8 energy code. Reach codes demonstrate local leadership and can help cities achieve SB 32, SB 100,  
9 SB 350, and SB 1477 goals while advancing towards Statewide decarbonization and energy  
10 efficiency benchmarks. Fifty-three California municipalities have adopted reach codes that  
11 establish “electric preferred” or “all-electric” mandates for new buildings.<sup>91</sup> Reach codes influence  
12 the Statewide energy code; there is potential for the 2022 code cycle to predominantly focus on  
13 new building requirements designed to advance the market salience of energy-efficient, all-electric  
14 appliances.

15 Three jurisdictions within 3C-REN’s territory have adopted an all-electric reach code: the  
16 Cities of Santa Barbara, San Luis Obispo, and Ojai. Southern California Edison provides reach  
17 code technical support in 3C-REN’s southern territory served by the utility. Pacific Gas and  
18 Electric, responsible for the northern 3C-REN territory, offers reach code support, but does not  
19 provide technical assistance or outreach. As a result, 42 percent of jurisdictions in 3C-REN’s  
20 territory do not receive direct technical support or public outreach assistance for reach code  
21 development. Many smaller jurisdictions in the Tri-County Region have expressed interest in

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<sup>91</sup> California's Cities Lead the Way to a Gas-Free Future. Matt Gough, July 22, 2021. Accessed February 2022 at <https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-gas-free-future>.

1 pursuing reach codes but do not receive support through PG&E or SCE due to geographical gaps  
2 in 3C-REN's territory.

3           Seven of 10 jurisdictions that 3C-REN staff, in partnership with the City of San Luis  
4 Obispo, interviewed in the northern part of 3C-REN's territory expressed interest in pursuing reach  
5 codes if technical support was available. Those jurisdictions further indicated that they would find  
6 it valuable to partner with 3C-REN and local consultants for public engagement and option  
7 modeling.

8           3C-REN is strategically positioned to fill this expressed-need by offering reach code  
9 technical support and expanding the Codes and Standards program. 3C-REN has strong  
10 partnerships and contracts with local consultants that can be deployed quickly and efficiently. 3C-  
11 REN aims to meet cities where they are, with a suite of options that includes ideation of code types,  
12 language development, public engagement, process management through the California Energy  
13 Commission adoption process, and educating public and private sector building professionals on  
14 compliance and enforcement requirements. 3C-REN has existing relationships with jurisdictions  
15 across the territory that will help establish trust and service utilization. 3C-REN will also guide  
16 any jurisdiction in the Southern portion of the region served by SCE to their services and existing  
17 consultants.

18           3C-REN proposes the following tactics: host trainings and educational events for  
19 jurisdiction staff and building professionals; develop models that help cities evaluate reach codes  
20 tailored to their specific jurisdiction; guide jurisdictions through the reach code adoption process;  
21 and coordinate a public outreach campaign for each jurisdiction to inform the public and engaged  
22 throughout the development and adoption process.

1                   **B.       Workforce Education & Training Goals, Objectives, and Strategies (E.**  
2                   **Helson and M. Topey)**

3                   3C-REN training efforts will focus on creating a thriving local workforce with the skills  
4 necessary to create and maintain high performance buildings. Building on the foundation laid in  
5 the first three years of 3C-REN's WE&T program, expansion efforts will include offering services  
6 to younger and more diverse audiences who will comprise the next generation of building industry  
7 professionals. 3C-REN will continue to leverage the robust and extensive network of available  
8 workforce training resources it has built to increase awareness of available WE&T services, design  
9 training opportunities that meet the needs of the Tri-County Region and continue grow local  
10 partnerships to increase accessibility and reach.

11                  Situated two to four hours from Southern California Edison's Irwindale Energy Education  
12 Center, the tri-county workforce has historically had limited access to energy efficiency education.  
13 At the same time, the region experiences the same national trends impacting the building  
14 workforce at-large, such as shortages of skilled labor and an older cohort of construction workers  
15 retiring from the industry. Combined, these drivers create an urgent need for homegrown  
16 workforce training dedicated to energy efficiency and high-performance building.

17                  The 2019 Market Needs Assessment has informed 3C-REN's efforts for supporting  
18 disadvantaged workers entering or a part of building trade professions. Per the Assessment's  
19 results, contractors were generally interested in trainings on mechanical measures, basic building  
20 science, plans and specifications. In synthesizing results with partner feedback from workforce  
21 development and support organizations, more introductory resources are needed to get the  
22 workforce started in energy efficiency work. Partners had similar ideas of an additional target  
23 audience: entry level workers. Most entry level workers entering trades-based work typically start  
24 with a blank slate and are not aware of various career pathways. Individuals who are less resourced,

1 qualifying as low income, or first-generation students have trouble affording basic certifications  
2 or education.

3 In the summer of 2019 3C-REN started its WE&T outreach and training; by the end of  
4 2019 it had offered 18 events covering eight different topics with 379 participants, including a  
5 diversity of industry representatives from 109 different organizations. In the fall of 2020, 3C-REN  
6 engaged workforce development and building professionals that serve disadvantaged contractors  
7 and workers to identify the target audience and pinpoint training needs to build an equitable and  
8 inclusive workforce to bring energy efficiency and resilience to the Tri-County Region. By  
9 interviewing key stakeholders who understand the gaps between underserved and more resourced  
10 workers, 3C-REN was able to develop a list of skills and trainings needed to for participants to be  
11 competitive in the building professional field. Every stakeholder agreed that basic soft skill  
12 training, such as sales, marketing, and customer service, are lacking in the region. Many  
13 stakeholders emphasized a need for technical training that covered safety and compliance, permits,  
14 codes, energy rating testing, and general energy efficiency.

15 3C-REN will continue to support disadvantaged workers with resources and training to  
16 ensure they can comply with quality and efficiency levels mandated by the State and through  
17 building codes, and also to enable them to participate in the advanced energy economy. 3C-REN  
18 will diversify training and outreach methods by partnering with local community organization  
19 serving disadvantaged and hard-to-reach communities to expand training offerings and materials  
20 available to disadvantaged workers. 3C-REN aims to transform its current training offerings to  
21 encompass two training series that provide an overview of high-performing building fundamentals  
22 and details career opportunities and pathways to entry-level workers interested in the building  
23 trades.



1

2 **Table 39: 3C-REN Cross-cutting WE&T – Goals, Objectives and Strategies**

Goal	Objective	Strategy
I. Expand 3C-REN's current WE&T network by 15% annually to substantially grow the number of workers capable of creating and maintaining high performance buildings.		A. Develop a robust and comprehensive worker-driven approach to engaging entry-level to high-performing building professionals, with a focus on professionals based in hard-to-reach and disadvantaged communities.
	1. 3C-REN will double its distribution list of individuals receiving WE&T training opportunities by 2028. 2. 3C-REN will deliver eighteen to thirty training events per year with a goal of averaging 15 event attendees per training.	B. Facilitate and deliver education and training that is designed specifically for the needs of the tri-county building professionals and regional construction market.
	3. 3C-REN will establish a partner network of 25 organizations that will promote training opportunities to industry, youth, disadvantaged workers, and career-transitioners.	C. 3C-REN will expand their partnerships with local and community organizations to ensure trainings and resources are accessible to all tri-county building and construction workers.

3

4 3C-REN’s goal is to expand 3C-REN's current WE&T network by 15% annually to  
5 substantially grow the number of workers capable of creating and maintaining high performance  
6 buildings.

7 **2. Objectives**

8 3C-REN has identified objectives to measure its progress toward achieving its goal of  
9 expanding its WE&T network to substantially grow the number of workers capable of creating  
10 and maintaining high performance buildings:

- 11 • Objective 1: 3C-REN will double its distribution list of individuals receiving  
12 WE&T training opportunities by 2028.
- 13 • Objective 2: 3C-REN will deliver eighteen to thirty training events per year with a  
14 goal of averaging 15 event attendees per training.

- 1           • Objective 3: 3C-REN will establish a partner network of 25 organizations that  
2           will promote training opportunities to industry, youth, disadvantaged workers, and  
3           career-transitioners.

4                           **3. Strategies**

5           **a. Strategy 1: Develop a robust and comprehensive worker-driven approach to**  
6           **engaging entry-level to high-performing building professionals, with a focus on**  
7           **professionals based in hard-to-reach and disadvantaged communities.**

8           California’s mandate to achieve carbon neutrality by 2045 reinforces the need to develop,  
9           retrofit, and maintain energy-efficient buildings that can be powered by renewable energy.  
10          However, seasoned contractors are retiring and fewer building professionals are entering the  
11          trades, creating a labor shortage. Additionally, workers who are entering the trades are not always  
12          trained in the fundamentals of building performance and the need for energy-efficient buildings.

13          3C-REN seeks to support the professional growth and retention of workers in the trades to  
14          meet the challenges of high-performance building growth. However, reaching the existing  
15          workforce with information about training opportunities is challenging. For instance, workforce-  
16          specific entities like San Luis Obispo County’s Builder Exchange (SLOCBE) and Women’s  
17          Economic Ventures (WEV) have emphasized the importance of outreach strategies that address  
18          age-group-specific challenges amongst local building professionals. Outreach must be delivered  
19          in a variety of formats, ranging from digital to radio and more traditional methods, as many  
20          established businesses are more paper-driven and less digitally connected, with owners often  
21          having limited computer skills.<sup>92</sup>

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<sup>92</sup> Memorandum: *Disadvantaged Workforce Training Proposed Partners, Audience, and Needs*. Frontier Energy, 2020.

1           3C-REN will target outreach for training and education opportunities to a broad range of  
2 building professionals, including architects and engineers, building department plans examiners  
3 and field inspectors, consultants, and raters. While Energy Code Ace, CEC, CalCERTS, and  
4 private firms already provide a variety of C&S tools and resources, survey comments indicated  
5 there was still strong demand for services that address regional and local needs, specifically an  
6 Energy Code expert and basic building science trainings. 3C-REN has an opportunity to serve  
7 these needs through disadvantaged worker training. 3C-REN has the relationships and connections  
8 required to reach disadvantaged workers and refine messaging. For instance, the agency has  
9 established partners among regional educational institutions and community-based organizations  
10 that can co-create outreach strategies targeting professionals in disadvantaged communities. 3C-  
11 REN also has developed a network of well-resourced building and construction professionals that  
12 serves consumers interested in high-performing buildings and can inform messaging to other trade  
13 professionals.

14           **b. Strategy 2: Facilitate and deliver education and training that is designed**  
15           **specifically for the needs of the tri-county building professionals and regional**  
16           **construction market.**

17           3C-REN's service territory needs both high quality training opportunities and an awareness  
18 about the value of such services and related job opportunities in order to fully support professional  
19 growth. An inadequately skilled workforce can result in high employee turnover and low  
20 productivity, negatively impacting energy code compliance rates, work quality, and customer  
21 costs.<sup>93</sup> Training programs can address skillsets, but there also must be a market for the training

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<sup>93</sup> *Market Needs Assessment Survey Report*. 3C-REN, 2019.

1 services in order to grow the workforce. Many local residents are not aware of the career  
2 opportunities for green building professionals.<sup>94</sup>

3 3C-REN routinely identifies training gaps within local training offerings and develops new  
4 curriculum when necessary. 3C-REN works to bring different training and community partners to  
5 the table who have historically operated in siloes, and partners with training providers that can  
6 accommodate the specific needs of the local workforce. Stakeholders that engage with the local  
7 workforce have identified various opportunities for improvement and training. Oxnard College’s  
8 HVAC program faculty feels there are knowledge gaps among the workforce in permit pulling,  
9 codes, energy rating testing, compliance, and general energy efficiency opportunities. Ventura  
10 County Contractors Association specified gaps in safety and compliance, project planning, and  
11 inventory. Cause Impacts and In Balance both mentioned how students are not the only ones  
12 struggling to build basic business management and professionalism skills.<sup>95</sup> The Tri-County  
13 Region has two primary needs for training and education: Technical Training on code compliance,  
14 building performance, and energy-efficiency; and “Soft Skills” Training for better  
15 communications, sales and marketing training, and business management.

16 The BPT program first began offering training in mid-2019. In the 2.5 years since it  
17 launched, 3C-REN has facilitated 104 BPT training events with 1,942 total event attendees. The  
18 program has posted 14 on-demand trainings, with this number increasing each month as new  
19 events pass. With an emphasis on hard-to-reach communities, the program is collaborating with  
20 high schools and colleges, testing the approach with Santa Barbara City College where BPT

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<sup>94</sup> “3C-REN Business Plan Listening Session, Workforce.” Online workshop, 3C-REN, July 2021.

<sup>95</sup> Memorandum: *Disadvantaged Workforce Training Proposed Partners, Audience, and Needs*. Frontier Energy, 2020.

1 provided free training to unemployed individuals enrolled in a construction program, as well as  
2 students in an English as a second language class. These trainings focused on career awareness,  
3 exposing students the vast number of roles available in the energy efficiency space.

4 Training topics include Business Development, All-electric and Zero-net energy, Building  
5 Envelope, High Performance, Home Remodeling, Ventilation, Insulation, Air Sealing, ADUs,  
6 Passive House Design, Heat pump water heaters, Energy efficiency for indoor agriculture and  
7 more.

8 To sustain and expand career pathways, 3C-REN must establish a strong underlying  
9 structure. This means a shared vision and stable regional career pathway system with solid  
10 partnerships and common understanding of objectives to make this approach feasible and  
11 effective. 3C-REN will expand their training offerings to engage entry-level workers in the tri-  
12 county. 3C-REN will offer a “High Performance Fundamentals” (HPF) class that is designed to  
13 equip entry-level workers with a common baseline understanding of high-performing measures  
14 and skills in preparation for a range of building occupations and trades. Topics may include:  
15 Building Science 101, high-performance building trends and terms, all-electric new construction  
16 and retrofits, building envelope and insulations, HVAC fundamentals, and domestic water heater  
17 fundamentals. 3C-REN will also partner with community colleges and high schools to engage  
18 students and build career awareness and opportunities for career exploration in the building  
19 professions. 3C-REN will work with schools and educators to ensure this training is consistent  
20 with local workforce needs and assets, while providing students with support services and career  
21 navigation assistance. This workforce development strategy will students an alternative route for  
22 getting into college, and provide them with an overview of skills that are greatly lacking in today’s  
23 workforce.

1           3C-REN has an opportunity to help building professionals overcome barriers that prevent  
2 them from installing high-performance building upgrades, by providing technical and soft skills  
3 trainings. In addition, 3C-REN will offer low or no-cost on-demand or live trainings for tri-county  
4 residents.

5           Furthermore, 3C-REN will work with employers, government agencies, workforce  
6 development providers and community-based organizations to develop curriculum for a high-  
7 performing fundamental series that increases the number of adequately skilled workers and aligns  
8 with the workforce needs of the construction market.

9           **c. Strategy 3: 3C-REN will expand their partnerships with local and community**  
10           **organizations to ensure trainings and resources are accessible to all tri-county**  
11           **building and construction workers.**

12           Workforce-specific entities like San Luis Obispo County’s Builder Exchange (SLOCBE)  
13 have emphasized the difference in access and advantage between northern and southern San Luis  
14 Obispo County contractors. Contractors in North County had less access to resources, had to travel  
15 greater distances, and had fewer potential customers than South County, which has the advantage  
16 of proximity to the City of San Luis Obispo. Santa Barbara Contractor Association (SBCA)  
17 mentioned a similar resource availability dynamic for Santa Barbara County.

18           Organizations such as WEV and Energy Conservation Consultants provide language-  
19 accessible trainings to constituents based in hard-to-reach communities, but who lack the resources  
20 to scale and provide mentorship to their members.

21           3C-REN has already established relationships with community-based organizations and  
22 workforce development organizations. Since COVID-19 has forced 3C-REN’s current offerings  
23 online, it is poised to reach these geographically challenged audiences. However, consistent  
24 feedback from 3C-REN training participants indicates that hands-on training opportunities are the  
25 most beneficial and desired types of trainings.

1           The region needs additional funding and resource to provide disadvantaged workers with  
2 benefits that allow them to participate in all types of trainings. 3C-REN is well-positioned to  
3 increase hands-on training opportunities and develop a standardized curriculum for those trainings.

4           3C-REN training efforts will focus on creating a qualified, diversified, and effective  
5 workforce to deliver trainings. An essential characteristic of this program is partnering with  
6 providers with on-site facilities to ensure trainings are accessible.

7           It is often difficult for smaller contractors to interrupt ongoing production schedules to  
8 attend trainings. In order to engage disadvantaged building professionals, 3C-REN must  
9 successfully convey the value of participating, the skills they will learn, and how they can benefit  
10 their businesses by giving them a competitive advantage in the rapidly changing building energy  
11 landscape. In light of this, 3C-REN will focus on partnerships to resources and trainings in the  
12 following audiences: Hispanic/Latinx with non-fluent English language skills, small business  
13 owners, low-income community members, students and new workers in the trades, and rural  
14 building professionals.

15           In addition, 3C-REN plans to offer online and/or hybrid delivery models for training  
16 through other training providers. Due to travel and time considerations, training and education  
17 classes may have an in-person component, for hands-on or in-the field trainings, as well as an  
18 online component to offer deeper material and learning.

19           3C-REN will implement a tiered-based approach for formalizing partnerships. The tiers  
20 include Networking Partners, Resource Partners, and Coordinating Partners. A Networking  
21 Partner is an organization that has expressed an interest in sharing resources to help the  
22 disadvantaged worker training offering reach more people. A Resource Partner is an entity that is  
23 interested in working closely with 3C-REN to provide trainings, not only in helping raise

1 awareness of trainings in the community but also integrating them into community college course  
2 curricula, offering to serve as instructors or speakers, and other greater commitments to the effort.  
3 Lastly, a Coordinating Partner is cross-promotional partner that will share training resources or  
4 integrate 3C-REN trainings into their program

5 **C. Commercial & Public Facilities Goals, Objectives, and Strategies (A.**  
6 **Watkins and M. Marchant)**

7 In addition to its existing cross-cutting sector offerings for C&S and WE&T, 3C-REN  
8 proposes to offer a new cross-cutting sector program targeted to public sector and commercial  
9 facilities. The Energy Assurance Services (EAS) program will provide outreach and technical  
10 assistance to support public sector and commercial customers in pursuing comprehensive load  
11 management and resiliency projects through other rebate programs available in the region from  
12 3C-REN and other PAs. This program design builds on 3C-REN member agency Santa Barbara  
13 County’s existing Energy Assurance Services program for critical facilities and expands it to cover  
14 the entire 3C-REN territory with a cross-cutting approach and broader focus on both public and  
15 commercial customers.

16 The 3C-REN service area includes County of San Luis Obispo, County of Santa Barbara,  
17 and County of Ventura, with a combined total of more than 1.5 million residents. The region has  
18 low population density and is made up of many smaller jurisdictions and unincorporated areas.  
19 The communities in the Tri-County Region consist of 25 incorporated cities ranging from 5,161  
20 to 202,063 in population, with a median population of 31,490. In addition to those 25 cities there  
21 are 53 unincorporated Census Designated Places (CDPs) ranging in population from 37 to 32,034,

1 with a median population size of 1,933.<sup>96</sup> In addition to local government jurisdictions, the Tri-  
2 County Region has 103 special districts as shown in Table 40.<sup>97</sup> In the commercial sector the  
3 Central Coast region includes nearly 42,000 businesses providing over 600,000 jobs, in business  
4 sectors dominated by hospitality and tourism, retail and agriculture, food and beverage processing,  
5 and education and training.

6 Supporting the region’s smaller local government jurisdictions, special districts, and  
7 commercial customers with similar facilities and needs will be a key area of focus for the EAS  
8 program. In 3C-REN’s stakeholder engagement to inform this application and this program in  
9 particular, a recurrent theme was the need for technical assistance. Feedback from stakeholders  
10 indicated that public sector staff and commercial sector business owners have very limited  
11 bandwidth to take on the complexities of energy efficiency program participation, even though  
12 many have significant interest in and need for upgrades at their facilities. These customers  
13 mentioned needing local support for energy audits, data analysis to understand project  
14 opportunities for their facilities, as well as guidance in navigating the process of finding and  
15 applying for the appropriate program.<sup>98,99</sup>

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<sup>96</sup> 2020 U.S. Census data. [www.census.gov](http://www.census.gov)

<sup>97</sup> Source: California Special Districts Association (CSDA). The CSDA Special Districts Mapping Project ([mydashgis.com](http://mydashgis.com)), accessed November 2021.

<sup>98</sup> 3C-REN Business Plan Listening Session: Residential Sector. July 2021.

<sup>99</sup> Joint Green Business stakeholder engagement call held with 3C-REN to inform program ideation for this filing.

1

2 **Table 40: Special Districts in the Tri-County Region**

Special District Type	Count
Airport	1
Cemetery & Memorial	20
Community Services	24
Fire	3
Flood Drainage	2
Harbor	3
HealthCare	3
Library	1
Mosquito & Vector Management	1
Municipal Improvement	1
Recreation and Park	5
Resource & Water Conservation	10
Sanitary	10
Water	19
<b>Total</b>	<b>103</b>

3 *Source: California Special Districts Association (CSDA) Special Districts Mapping*  
 4 *Project (mydashgis.com), accessed November 2021 at <https://mydashgis.com/CSDA/map>*  
 5

6 3C-REN’s innovative program design also offers the opportunity to prioritize customer  
 7 sites based on high peak load, to drive higher savings in the rebate programs to which these  
 8 customers will be referred and thereby contribute to savings goals across two sectors of the overall  
 9 statewide EE portfolio. The program will align with 3C-REN’s organizational goals to serve hard-  
 10 to-reach and vulnerable populations, through assistance to small and under-resourced jurisdictions,  
 11 critical facilities, and community-serving locations. The comprehensive load management  
 12 approach provides the ability to take a holistic view of customer needs and opportunities for energy  
 13 efficiency, decarbonization, as well as addressing regional and local challenges with climate  
 14 change impacts and extreme heat, grid reliability, and water conservation.

1 **1. Goal**

2 3C-REN’s goals, objectives, strategies, and tactics for Commercial & Public Facilities are  
 3 shown in the table below and detailed in the sections that follow.

4 **Table 41: Cross-cutting Commercial & Public Facilities – Goals, Objectives, and Strategies**

Goal	Objective	Strategy	Tactic
1. 50% of jurisdictions utilize program services and 50 businesses utilize program services	1. Provide two regional forums dedicated to highlighting energy topics, services, and incentive programs for public and commercial customers 2. An average of 20 sites are benchmarked annually 3. An average of 15 audits are conducted annually to assist in comprehensive load management and improve resiliency	A. Provide comprehensive technical assistance for commercial and public sector energy efficiency and resiliency projects	h. Offer packaged and layered solutions to meet commercial and public sector customers’ specific needs i. Design technical assistance to meet the specialized needs of public agencies, special districts and smaller jurisdictions
		B. Build on position as a trusted resource to create awareness, leverage existing partnerships with local jurisdictions and businesses, and encourage energy leadership for commercial and public sector customers	a. Build partnerships to support Water-Energy Nexus projects b. Provide outreach and education to position the region as an energy and climate leader

5  
 6 3C-REN has the goal of 50 percent of jurisdictions utilizing program services and 50  
 7 businesses utilizing program services.

8 **2. Objectives**

9 3C-REN has identified objectives to measure its incremental progress toward achieving its  
 10 goals for cross-cutting commercial and public facilities:

- 11 • Objective 1: Provide two regional forums dedicated to highlighting energy topics,  
 12 services, and incentive programs for public and commercial customers.
- 13 • Objective 2: An average of 20 sites are benchmarked annually
- 14 • Objective 3: An average of 15 audits are conducted annually to assist in  
 15 comprehensive load management and improve resiliency.

1 To achieve these objectives and support the overall sector goal outlined above, 3C-REN  
2 proposes the strategies and tactics described in the section that follows.

### 3 **3. Strategies**

#### 4 **a. Strategy A. Provide comprehensive technical assistance for commercial and** 5 **public sector energy efficiency and resiliency projects**

6 Energy upgrades on commercial and public sector buildings and infrastructure projects in  
7 3C-REN territory have been especially limited because of the smaller facilities and rural nature of  
8 the region. The challenges with conducting work in the region and the limited energy savings on  
9 smaller projects have led existing program implementors and administrators to neglect the region  
10 despite public sector buildings and infrastructure in the area being in dire need of attention. To  
11 support these projects and similar commercial projects in reaching fruition, technical support is a  
12 vital service; a significant amount of time, cost, and effort is required to specify equipment and  
13 design strategies; estimate costs; develop timelines; and identify and enroll in investor-owned  
14 utility, CCE and state programs.

15 3C-REN will deliver specialized technical support to these customers to achieve  
16 comprehensive load management. 3C-REN member agency Santa Barbara County already has  
17 experience implementing such a comprehensive load management program through the Energy  
18 Assurance Services program which currently focuses on critical facilities. 3C-REN proposes to  
19 expand this program to cover the entire 3C-REN territory with a broader focus on public and  
20 commercial sector customers. 3C-REN staff will leverage existing relationships and experience to  
21 quickly launch the expanded program.

22 Specifically, the program will offer energy audits and resiliency consultation, direct  
23 customers to existing energy efficiency programs and support their enrollment as applicable. Some  
24 customers, such as under-resourced public agencies, will also be supported with processes related

1 to pursuing upgrades specific to public agency needs, as discussed further in tactic B. Project sites  
2 may be prioritized for service based on high peak energy use. Commercial and public sites that are  
3 identified as critical facilities and utilized as cooling/warming centers or resiliency hubs during  
4 crises may also be prioritized for service.

5 3C-REN is well positioned to offer technical support as a trusted resource and partner. 3C-  
6 REN staff has developed and maintained strong relationships with public and commercial sector  
7 customers, and special districts across the region, both through 3C-REN programs and  
8 involvement in previous local government partnerships. In addition, through the current WE&T  
9 and C&S programs, 3C-REN has trained staff from various local contracting firms who could, and  
10 are, interested in working with 3C-REN to deliver technical support and implement projects.  
11 Through this strategy of providing comprehensive technical assistance to commercial and public  
12 sector customers, 3C-REN will support its sector goals while aligning with its market support  
13 segment and portfolio strategies. The following tactics and activities are proposed to support this  
14 strategy.

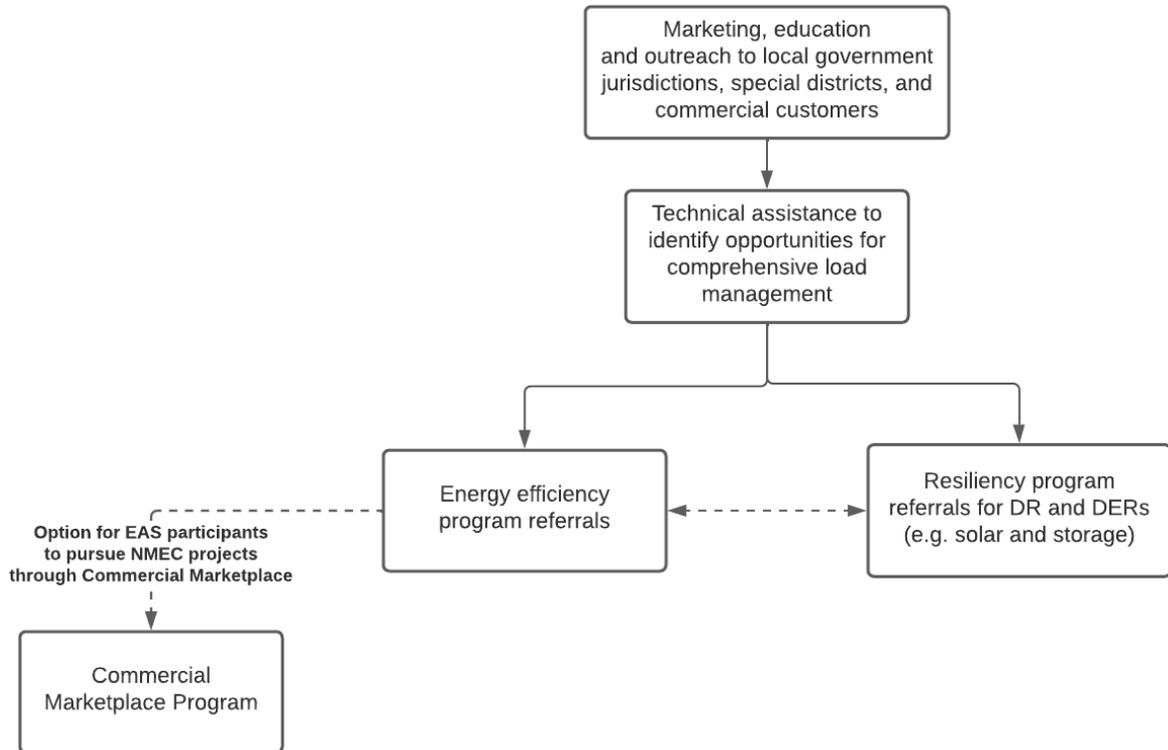
15 ***Tactic: Offer packaged and layered solutions to meet commercial and public sector***  
16 ***customers' specific needs***

17 As discussed earlier, many commercial and public sector customers lack capacity and  
18 knowledge to fully realize a project from start to finish. Further, many customers are unaware of  
19 existing incentive and rebate programs that are frequently changing. 3C-REN is in a unique  
20 position to act as a liaison and aggregator of these existing programs due to the agency's  
21 relationships and experience in the field. 3C-REN will be able to package and coordinate on behalf  
22 of the customer to bring the best value proposition for projects.

23 3C-REN will coordinate closely with IOUs, CCAs and other program administrators to  
24 build a suite of programs available in each county for commercial and public sector customers.

1 The suite of programs will be broken down by technology and financing and will serve as a menu  
2 for potential project application and implementation. One of the programs included for  
3 consideration when referring customers will be 3C-REN's new proposed Commercial Marketplace  
4 program, where customers can pursue NMEC projects at their facilities as shown in the chart  
5 below. 3C-REN will work with engineering teams to recommend the "best fit" for the customer  
6 and propose solutions that will benefit projects. The collaborative nature of this program is  
7 beneficial to program administrators and implementers situated in the region as it will assist in  
8 meeting goals for all parties and the state.

## Energy Assurance Services Program



1

2 **Figure 5: Energy Assurance Services Program and pathway to Commercial Marketplace**  
3 **Program for NMEC projects**

4

5 *Tactic: Design technical assistance to meet the specialized needs of public agencies,*  
6 *special districts and smaller jurisdictions*

7 Various project types exist across the region for public sector customers, such as lighting,

8 HVAC, water and wastewater trajectory, and many others that have been neglected or deferred

9 over the years. These deferments create issues with aging infrastructure, poor planning, and

10 replacement on burnout that create potential emergencies that could be avoided with the

1 appropriate strategies and programs in place. 3C-REN seeks to focus on these project types – large  
2 or small – to serve customers when and where they need support.

3           Specific challenges exist for public agencies in pursuing energy upgrades that 3C-REN aims  
4 to address in this filing through the provision of comprehensive technical assistance. For instance,  
5 in the public sector, the capital improvement planning (CIP) process can hinder progress if specific  
6 projects are not selected for the current year. It will be increasingly important for 3C-REN staff to  
7 leverage and develop relationships with jurisdictions to embed the projects identified in the audits  
8 into CIP process. This support can be worked into the technical assistance offering. Additionally,  
9 procurement processes in the public sector can delay projects when competitive solicitations are  
10 required. RFP development, or support for similar solicitation methods may also be offered as part  
11 of the technical assistance package.

12           While the challenges discussed above may be relevant to public agencies of all sizes, it is  
13 of note that the special districts and smaller jurisdictions in 3C-REN territory have had minimal  
14 services offered to them. 3C-REN seeks to fill the gap for these customers that are often  
15 understaffed and don't have the capacity to focus on energy usage or projects. This program aims  
16 to deliver comprehensive technical support to customers, including project support to ease capacity  
17 restraints.

18           The program will also offer energy management solutions to customers via benchmark  
19 reporting on a biannual basis and a database for tracking energy usage at a meter level. These  
20 offerings will not only provide an opportunity for agency staff to be familiar with their facilities'  
21 energy use and cost but will also provide an opportunity for 3C-REN to engage with agency staff  
22 in project possibilities.

1           3C-REN staff is well situated to deliver this program; program managers are local  
2 government agency staff with experience in delivering similar programs as former local  
3 government partnership implementors. There are existing relationships with various agencies that  
4 will be leveraged to successfully deliver program strategies and tactics.

5           Focusing on smaller jurisdictions and special district infrastructure will deliver much  
6 needed energy and project management support while further cementing 3C-REN as a trusted  
7 resource and partner to the community.

8           **b. Strategy B. Build on position as a trusted resource to create awareness, leverage**  
9           **existing partnerships with local jurisdictions and businesses, and encourage**  
10           **energy leadership for commercial and public sector customers**

11           3C-REN has built a reputation as a trusted partner and resource in its existing portfolio of  
12 programs. The agency seeks to expand that reputation into the commercial and public sectors by  
13 leveraging existing relationships and partnerships, while continuing to explore and develop new  
14 opportunities in the sectors. 3C-REN is well positioned to work closely with counties, cities, and  
15 special districts across the territory. 3C-REN's staff of local government employees are familiar  
16 with similar agencies' planning and budgeting processes and energy project opportunities. 3C-  
17 REN also has established service and connections with local governments through the Codes and  
18 Standards program. Similarly, 3C-REN is well situated to serve the commercial sector as it will be  
19 able to leverage existing relationships with chambers of commerce and the Green Business  
20 Programs located in each county.

21           3C-REN also has connections with energy leaders in each county from both sectors who  
22 can serve as allies to share programmatic information and successes to broader communities and  
23 agencies. 3C-REN will partner with these leaders to engage additional facility managers in energy  
24 savings opportunities. Additionally, 3C-REN will spotlight successful energy projects via various  
25 outreach channels. Program and project successes will develop the region as a leader in the state

1 for energy load management and feed projects into programs offered by other existing  
2 implementers and administrators.

3 By growing as a trusted partner and resource, 3C-REN will support its sector goal for  
4 commercial and public sector customers utilizing services while aligning with its market support  
5 segment and portfolio strategies. The following tactics and activities are proposed to support this  
6 strategy.

7 ***Tactic: Build partnerships to support Water-Energy Nexus projects***

8 As 3C-REN continues to expand its service and network, the agency will target water-  
9 energy nexus projects across the territory. The Tri-County Region’s water supply has embedded  
10 energy costs inherent in the delivery of water to and throughout the region and the pumping of  
11 water for various commercial and municipal applications. The connection between energy and  
12 water use highlights the need for 3C-REN to deliver energy efficiency and resiliency projects that  
13 tie directly to water savings.

14 Many of the special districts and cities in the territory operate some form of water service  
15 to customers, whether potable or sewer, and much of the existing infrastructure is aging or has  
16 deferred maintenance issues. Through comprehensive audits, project implementation support, and  
17 energy management services, 3C-REN will assist these customer types with synergistic solutions  
18 to save money, energy, and water over time.

19 Many commercial customers face similar issues surrounding water pumping and/or  
20 processes that directly affect energy use and cost. Through this program’s comprehensive load  
21 management support mechanisms, 3C-REN will deliver cost effective strategies to the customer  
22 and connect them with appropriate programs to save annually.

23 Addressing the water-energy nexus will require 3C-REN to build strong relationships with  
24 water agencies and deliver on program offerings. Early progress with key programmatic allies will

1 be critical to the success of the program. To ensure program success, 3C-REN's technical  
2 assistance will be delivered carefully. 3C-REN will work with agencies to meet budgetary and  
3 planning requirements and provide additional support to smaller agencies with limited staff and  
4 capacity. 3C-REN is committed to meeting customers where they are and will act as an advocate  
5 on their behalf.

6 ***Tactic: Provide outreach and education to position the region as an energy and climate***  
7 ***leader***

8 3C-REN has been successful in its existing programs with outreach and education for  
9 building professionals and residential customers. The proposed EAS program will expand on  
10 existing protocols for customer engagement and education. By utilizing digital advertising  
11 methods and partnering with various member-based organizations to copromote offerings, the  
12 program will reach broad audiences across the territory. Similarly, this program will aim to target  
13 customers for service by using energy data and other data sources as available.

14 The program will also offer educational and networking opportunities through regional  
15 energy forums. Forums will be delivered multiple times throughout the year and will focus on  
16 various technologies, programs, and customer types. 3C-REN's existing Codes and Standards  
17 program delivers three regional forums annually; staff have developed processes for the  
18 development and delivery of regional forums that can easily be mapped to the Commercial/Public  
19 Cross-Cutting program. 3C-REN will develop a marketing and partnership plan to maximize  
20 customer engagement. Through stakeholder input sessions held during the summer of 2021, 3C-  
21 REN has created footholds with some public and commercial sector customers, organizations, and  
22 agencies. 3C-REN's marketing and partnership plan will focus on building lasting reciprocal  
23 relationships with these and additional customers. Presentations to member agencies like Local  
24 Agency Formation Commissions (LAFCOs); Councils of Governments (COGs); and Chambers of

1 Commerce will also be integral to the plan in order to deepen partnerships, identify customers, and  
2 create successful program outcomes.

3 **D. Cross-cutting Sector Coordination**

4 ***1. Codes & Standards Coordination***

5 Energy codes are complex, ambitious, and change every three years, requiring cross agency  
6 coordination to provide resources and trainings for building professionals to stay up to date on the  
7 updates. These resources and trainings must be customized to address the region’s specific needs.  
8 To date, 3C-REN’s C&S program has collaborated with BayREN, the CEC, the Statewide C&S  
9 team/Energy Code Ace, CalCerts, and CABEC to bring trainings and resources to the region .  
10 Despite these efforts, confusion remains regarding codes and standards as requirements and  
11 technology continue to evolve. 3C-REN will continue to build on its ongoing coordination efforts  
12 to reduce confusion regarding codes and standards and leverage efficiencies and resources across  
13 the region.

14 ***2. Workforce Education & Training Coordination***

15 3C-REN proposes activities for WE&T program coordination that include matching  
16 trainings with the long-term construction needs of the tri-county area; building capacity for  
17 partners in the 3C-REN BPT network; developing job opportunities by engaging employers and  
18 residential customers; creating additional support systems available at community colleges outside  
19 of EE education; promoting career awareness amongst building professions to youth; and engaging  
20 small businesses on high-performance building upgrades and practices.

21 ***3. Commercial & Public Facilities Coordination***

22 For its proposed Energy Assurance Services program serving commercial and public sector  
23 customers, 3C-REN will coordinate closely with local government jurisdictions and special  
24 districts across the region. This will involve building on existing relationships to identify

1 champions for energy efficiency, resiliency, and water-energy nexus projects. Similarly, 3C-REN  
 2 will capitalize on its existing relationships with commercial sector customers and build new  
 3 relationships with individual and member organizations to maximize customer engagement. 3C-  
 4 REN will gather input from stakeholders and provide ongoing collaboration on co-branded  
 5 outreach materials, as well as case studies to help establish local jurisdictions and businesses as  
 6 climate and energy efficiency leaders. To ensure commercial and public sector energy efficiency,  
 7 decarbonization, and resiliency are represented in offerings for workforce development, 3C-REN  
 8 will coordinate with cross-cutting 3C-REN initiatives and programs such as Building Performance  
 9 Training (BPT) and Energy Code Connect (ECC). 3C-REN will also coordinate with other PAs to  
 10 establish relationships with program managers for further coordination, in order to characterize  
 11 eligibility criteria and participation pathways for referring participants from 3C-REN’s technical  
 12 assistance offerings into rebate programs to optimize sector energy efficiency opportunities.

13 **E. Categorization**

14 **Table 42: Cross-cutting Sector Program Categorization by Segment**

Program	Categorization by Segment
Codes & Standards	Codes & Standards
Workforce Education & Training	Market Support
Commercial & Public Facilities	Market Support

15  
 16 **F. Cross-cutting Sector Program Details**

17 The Program Cards for the Cross-Cutting Sector Programs are provided in Appendix A.  
 18 Program details for the new Energy Assurance Service program are as follows. The proposed  
 19 Energy Assurance Services program is a new offering in the market support segment and would  
 20 not replace any existing 3C-REN program. Stakeholder input to 3C-REN’s business plan  
 21 development indicated a need for “strong technical assistance” especially in the public sector. In

1 response, 3C-REN proposes to expand the existing non-CPUC ratepayer-funded program offered  
2 by 3C-REN member agency Santa Barbara County which currently focuses on critical facilities.

3 3C-REN’s EAS program proposed in this application would expand the Santa Barbara  
4 County offering to cover the entire 3C-REN territory with a broader focus on public and  
5 commercial sector customers. Customers would receive comprehensive load management  
6 technical assistance to assess their energy efficiency and resiliency needs as well as guidance and  
7 referrals to incentive programs and other opportunities such as DERs. Program referrals could  
8 include 3C-REN’s Commercial Marketplace program’s NMEC participation pathway. A  
9 particular focus of this program would be on assisting smaller jurisdictions and special districts  
10 who have aging infrastructure and lack the capacity to take on the complexities of energy  
11 efficiency program participation on their own.

12 This program aligns with 3C-REN’s market support segment objectives of building  
13 demand for energy efficiency products and services, as well as its overall strategic framework  
14 strategy of delivering holistic, equitable solutions for energy and resiliency. The EAS program  
15 supports the state’s GHG emissions reductions and energy efficiency goals by driving participation  
16 and savings in 3C-REN and other PAs programs. Moreover, the program is in the best interest of  
17 ratepayers by assisting customers in benefitting from programs to which they’re already  
18 contributing, while also supporting them in pursuing projects that enhance resiliency and  
19 contribute to other climate and sustainability goals.

20 Program-specific coordination not applicable – please see sector coordination section.

1 **VII. RESIDENTIAL SECTOR (A. PRICE, M. HANSON AND C. SCHRALL)**

2 **A. Overview**

3 **1. Housing Overview**

4 Within the three counties that comprise 3C-REN, the residential sector consists of  
5 approximately 521,502 households.<sup>100</sup> In 2020, 3C-REN conducted a market characterization of  
6 the multifamily sector in the Tri-County Region to inform its planning and program design  
7 process.<sup>101</sup> In 3C-REN territory multifamily units comprise 17.5% of total housing stock and come  
8 in all sizes. 5.8% are in small (5-9 unit) buildings, 4.7% in mid-size (10-19 unit) buildings, and  
9 7% in large (20+ unit) buildings.<sup>102</sup>

10 Renters make up roughly 37 percent of households in both Ventura County and San Luis  
11 Obispo County, and nearly 48 percent of households in Santa Barbara County, for a total of  
12 209,950 renter households across the Tri-County Region—40.26 percent of all households.<sup>103</sup>  
13 Multifamily units comprise between 25 and 41 percent of all rental housing across the three  
14 counties. In each county, 90 to 93 percent of multifamily units are renter-occupied.<sup>104</sup>

15 Residential multifamily renters meet the HTR eligibility criteria defined in Resolution G-  
16 3497 (p 63-64) and reasserted in decision D.18-05-041 (p 41-53). Since two of the three counties  
17 that make up 3C-REN (San Luis Obispo and Santa Barbara) meet the geographic HTR criteria of

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<sup>100</sup> 2019 American Community Survey 1-Year Estimates, accessed January 2022 at <https://www.census.gov/programs-surveys/acs.html>.

<sup>101</sup> 3C-REN Multifamily Market Characterization, September 2020.

<sup>102</sup> Ibid.

<sup>103</sup> 2019 American Community Survey 1-Year Estimates, accessed January 2022 at <https://www.census.gov/programs-surveys/acs.html>.

<sup>104</sup> 3C-REN Multifamily Market Characterization, September 2020.

1 being located in areas other than the United States Office of Management and Budget Combined  
 2 Statistical Areas of the San Francisco Bay Area, the Greater Los Angeles Area and the Greater  
 3 Sacramento Area or the Office of Management and Budget metropolitan statistical areas of San  
 4 Diego County, this means all multifamily renters in those two counties qualify as HTR. Customers  
 5 in Ventura County qualify as HTR so long as they are located within a designated Disadvantaged  
 6 Community (DAC). Areas with low levels of homeownership and high rent burden, as described  
 7 in the section that follows, are also key criteria for the definition of disadvantaged communities.<sup>105</sup>  
 8 As a REN dedicated to serving HTR, disadvantaged, and other vulnerable communities, 3C-REN  
 9 has developed its residential sector strategies and tactics.

10 **Table 43: 3C-REN Households**

	Ventura County	San Luis Obispo County	Santa Barbara County	Tri-County Total
<b>Population</b>	843,843	282,424	448,229	1,574,496
<b>Total Households</b>	268,524	106,512	146,466	521,502
<b># of households who rent</b>	99,891	40,049	70,011	209,950
<b>% of households who rent</b>	37.2%	37.6%	47.8%	40.26%

11 *Source: 2019 American Community Survey 1-Year Estimates, accessed January 2022 at*  
 12 *<https://www.census.gov/programs-surveys/acs.html>*  
 13

14 **2. Affordability and Energy Burden**

15 Housing affordability and the interplay with energy burden are important considerations  
 16 for 3C-REN’s residential sector offerings. Economic disparity and housing affordability are well  
 17 documented equity challenges facing the state of California, and the tri-counties are significantly  
 18 impacted. The California Department of Housing and Community Development report entitled

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<sup>105</sup> D.18-05-041 (p 39-41)

1 “California’s Housing Future: Challenges and Opportunities Final Statewide Housing Assessment  
2 2025” from February 2018 (Statewide Housing Assessment) outlines three long-term  
3 recommendations for addressing housing challenges:<sup>106</sup>

- 4 1. Reform land use policies to advance affordability, sustainability, and equity.
- 5 2. Address housing and access needs for vulnerable populations through greater  
6 inter-agency coordination, program design, and evaluation.
- 7 3. Invest in affordable home development and rehabilitation, rental and  
8 homeownership assistance, and community development.

9 As representatives of local government, and as an administrator of energy efficiency  
10 programs for the residential market sector, 3C-REN has a valuable role to play in addressing  
11 housing challenges in its region. In alignment with elements of the Statewide Housing Assessment  
12 recommendations, 3C-REN serves as a convenor to build greater inter-agency coordination. In one  
13 example, in October of 2020, HES joined the People’s Self-Help Housing (PSHH) and the  
14 Association for Energy Affordability (AEA) in a large-scale collaborative energy efficiency  
15 upgrade of farmworker housing. The project leveraged several incentive programs including  
16 Energy Savings Assistance (ESA), Low Income Weatherization Program (LIWP), and 3C-REN’s  
17 Home Energy Savings program. Through this project alone, the program installed 197 heat pump  
18 water heaters (HPWH) while simultaneously providing some of the first hands-on training in the  
19 region to contractors on HPWH installation. This project has accounted for the vast majority of  
20 heat pumps installed in the Tri-County Region to date. This project is an excellent example of 3C-  
21 REN’s ability to coordinate with other programs and funding sources to deliver savings from

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<sup>106</sup> California’s Housing Future: Challenges and Opportunities Final Statewide Housing Assessment 2025. California Department of Housing and Community Development, February 2018, p. 2.

1 installation of high performance measures while increasing resiliency and driving improved  
2 outcomes for a vulnerable population in its region—farmworkers.

3 3C-REN is also presently working with organizations like PSHH, housing authorities, and  
4 other agencies in the region to explore energy efficiency upgrades for affordable multifamily  
5 properties serving low-income families and formerly unhoused individuals and veterans.

6 3C-REN will continue to design and expand its programs serving vulnerable populations,  
7 in alignment with its mandate as a REN to serve HTR customers, as well as its equity segment  
8 objectives for serving HTR, DAC, and/or underserved individuals, households, and communities  
9 to address disparities in access to energy efficiency programs and workforce opportunities;  
10 promote resilience, health, comfort, safety, energy affordability, and/or energy savings; and reduce  
11 energy-related greenhouse gas and criteria pollutant emissions. 3C-REN will also use its programs  
12 and incentives to invest in energy efficiency related rehabilitation of residences for both  
13 homeowners and renters, as well as community development through outreach and partnerships.

14 The Tri-County Region is disproportionately affected by housing affordability challenges.  
15 The region’s average housing costs for both renters and homebuyers exceed the statewide median,  
16 as shown in the table below.

1

2 **Table 44: Tri-County Region Median Housing Prices vs. Statewide Median**

	Ventura County	San Luis Obispo County	Santa Barbara County	Tri-County Average	State of California
<b>Median House Price (Dec. 2021)<sup>107</sup></b>	\$805,000	\$797,000	\$772,500	\$791,500	\$736,500
<b>Median Gross Rent<sup>108</sup></b>	\$1,859 +/- \$45	\$1,654 +/- \$56	\$1,660	\$1,724	\$1,614 +/- \$7

3

4 House price growth year over year exceeds the statewide growth rate in two of the three  
5 counties: Ventura (+18.2%) and San Luis Obispo (15.9%), versus statewide (13.8%).<sup>109</sup> Rent  
6 continues to increase as well, outpacing renters’ wages as shown in the following figure from the  
7 Statewide Housing Assessment.

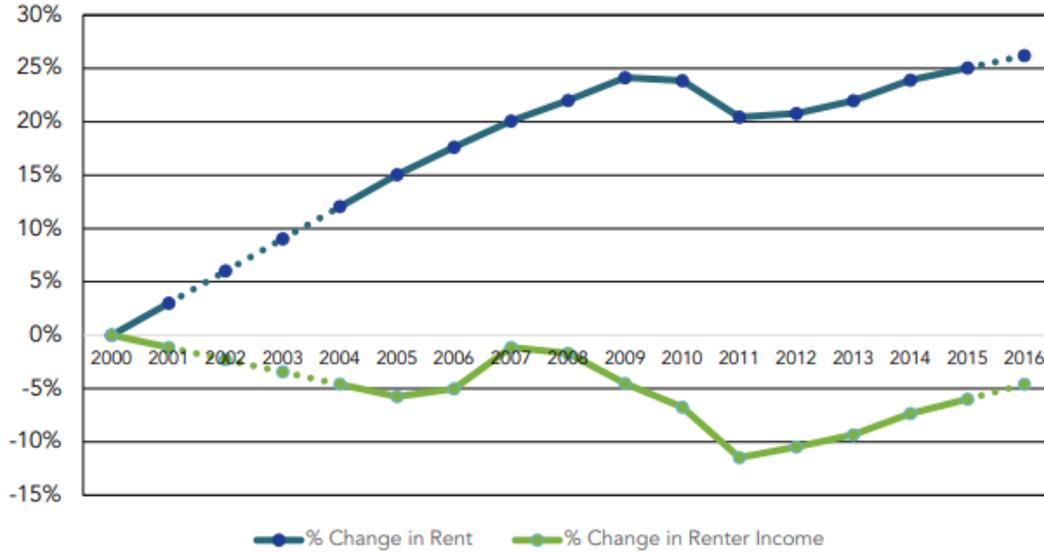
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<sup>107</sup> Data from Redfin national real estate brokerage. Accessed January 2022 at [www.redfin.com](http://www.redfin.com).

<sup>108</sup> Data from County and State Profiles, 2019 American Community Survey 1-Year Estimates. Accessed January 2022 at [www.census.gov/](http://www.census.gov/).

<sup>109</sup> Data from Redfin national real estate brokerage. Accessed January 2022 at [www.redfin.com](http://www.redfin.com).

**Renter Income Has Not Kept Pace with Increasing Rents 2000-2013**  
 Change in Inflation Adjusted Median Rent and Renter Income Since 2000



Source: California Housing Partnership analysis of 2000 Decennial Census and 2005-2014 American Community Survey 1 year data. 2001-2004 and 2015-2016 are an estimated trend. Median rent and renter income are inflation adjusted to 2014 dollars. Graphic recreated by HCD.

1

2 **Figure 6: Renter Income Has Not Kept Pace with Increasing Rents 2000-2013<sup>110</sup>**

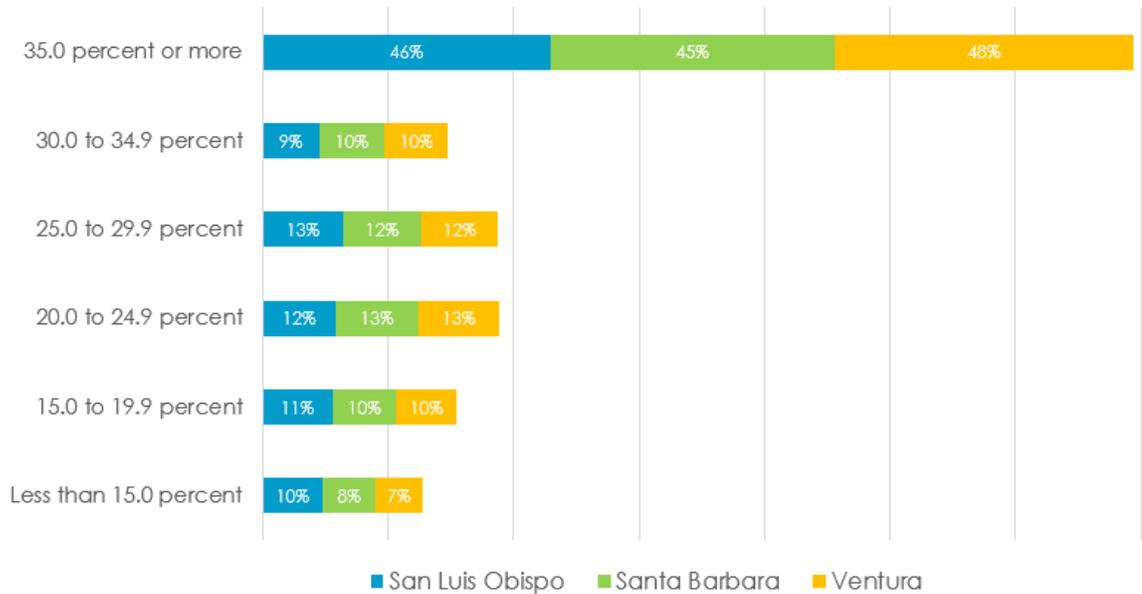
3

4 In the Tri-County Region, approximately 21% of renters (12.4% of all tri-county  
 5 households) earn less than \$50,000 annually. However, even if a household is considered moderate  
 6 income and does not meet the threshold for participation in low-income energy efficiency  
 7 programs, they are likely rent-burdened; between 55-58% of all renters pay more than 30% of their  
 8 income toward rent. Federal guidelines state those paying more than 30% of income on housing  
 9 are cost-burdened.<sup>111</sup> The following figure shows the cost-burden for renters in the Tri-county

<sup>110</sup> California’s Housing Future: Challenges and Opportunities Final Statewide Housing Assessment 2025. California Department of Housing and Community Development, February 2018.

<sup>111</sup> US Census Bureau, 2020. 2018 American Community Survey 1-Year Estimates: Financial Characteristics, Table S2503. Accessed at <https://data.census.gov/cedsci/table?q=housing%20income&g=0500000US06079,06111,06083&>

1 Region. High rent burden is an important motivator for 3C-REN’s investments in residential sector  
 2 and equity segment offerings to serve HTR and DAC customers.



3

4 **Figure 7: Rent as a Percentage of Household Income in the Tri-Counties**

5 *Source: US Census Bureau, 2018: American Community Survey 1-Year Estimates*

6 Recognizing the region’s challenges related to the cost of housing and rent, the issues  
 7 around split incentives for homeowners and renters continue to be of critical importance to 3C-  
 8 REN’s residential sector offerings. Addressing these issues requires a creative and focused  
 9 approach to program design to ensure that both property owners and renters have a path to benefit  
 10 from energy efficiency and decarbonization initiatives. In its residential sector goals, objectives,  
 11 and strategies later in this section, 3C-REN has incorporated specific targets and approaches  
 12 tailored to serving renters as well as property owners.

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tid=ACSST1Y2018.S2503&t=Income%20%28Households,%20Families,%20Individuals%29%  
 3AHousing&vintage=2018&hidePreview=true&layer=VT\_2018\_050\_00\_PY\_D1



1 the region’s building stock as a whole, easing the energy burden on lower and moderate income  
2 residents, while also supporting cross-cutting efforts in 3C-REN’s Codes & Standards program.

3 **Table 45: Vintage of Tri-County Homes**

Vintage of Homes	Ventura County	San Luis Obispo County	Santa Barbara County	Total
1959 or earlier	16.6%	16.3%	25.8%	19.6%
1960 to 1969	20.5%	9.8%	21.9%	17.4%
1970 to 1979	23.0%	21.7%	18.3%	21.0%
1980 to 1989	17.5%	22.0%	15.4%	18.3%
1990 to 2000	10.7%	13.2%	8.9%	10.9%
2000 to 2010	11.4%	16.4%	9.3%	12.4%
Median Built Year	1976	1981	1971	
Built before 1970	37.2%	26.1%	47.7%	37.0%

4

5 **4. Customer Motivations**

6 The 2021 Potential and Goals Study included a Market Adoption Characteristics Study  
7 examining behavior and preferences of customers including non-low income single family (<5  
8 units) residential as well as owners and managers of multifamily properties (>5 units). The study  
9 defined a new model for customer willingness to adopt efficiency measures, with six new value  
10 factors as shown in the figure below.

**Table 1-1. Value Factor Descriptions**

<b>Value Factor</b>	<b>Customer Value Perspective</b>
Lifetime Costs	Long-term energy costs and savings of the technology
Upfront Costs	Initial out-of-pocket price of the technology
Hassle Factor	Ease in installing and using a technology, which is also related to convenience of the purchase and installation
Non-consumption Performance	Other non-financial and non-energy elements that customers likely consider when deciding to purchase a new appliance or technology
Eco Impacts	Environmental impacts from energy consumption
Social Signaling	Being perceived as environmentally or socially responsible by one's peers, which is captured in the social signaling value factor

Source: Guidehouse team

**Figure 8: Value Factor Descriptions from 2021 Potential & Goals Market Adoption Characteristics Study**

Source: Guidehouse, 2021 Energy Efficiency Potential Study, Attachment 1: California Energy Efficiency Market Adoption Characteristics Study, April 16, 2021

The results of the study showed that for both single family and multifamily property owners/managers, the eco impacts (environmental issues and repercussions) are highly important considerations when contemplating technology replacements or upgrades. Lifetime costs of technologies was another commonality, rated as highly important to single family and moderately important to multifamily property owners and managers. Social signaling was also rated as moderately important for both populations.<sup>113</sup>

These and other findings from the Market Adoption Characteristics Study informed the 2021 Potential and Goals Study (PG Study). While the PG Study is focused on IOUs and does not set goals for RENs, the findings of the PG Study and associated research nevertheless provide

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<sup>113</sup> Guidehouse, 2021 Energy Efficiency Potential Study, Attachment 1: California Energy Efficiency Market Adoption Characteristics Study, April 16, 2021, at 32-35.

1 valuable insights for program development. In designing its approaches to the residential sector,  
2 3C-REN has incorporated strategies and tactics to encourage and educate customers about high  
3 performance measures, in alignment with the Eco Impacts and Lifetime Costs value factors  
4 examined in the study. 3C-REN also includes activities such as developing case studies about  
5 successful projects, to help program participants celebrate their successes and promote their  
6 environmental responsibility in keeping with the Social Signaling value factor. 3C-REN will  
7 continue to explore innovative and data-driven program approaches that motivate customers and  
8 increase demand for high performance measures, aligning with the guiding principles in its  
9 Strategic Framework.

#### 10 **5. *Ongoing Pandemic Impacts***

11 The arrival of COVID-19 in the tri-country region presented a significant impact to the  
12 launch and service provided by the single family program in 2020. 3C-REN adapted to the  
13 challenges of the ongoing pandemic in that year and in 2021 to continue to conduct installations  
14 and provide customer direct install packages. This included monitoring COVID-19 severity and  
15 spread, CDC and regional safety guidance, and the assessment of the program implementor. As  
16 the single and multifamily programs look to the future, COVID-19 adds a highly unpredictable  
17 and ongoing variable impacting program activities. As the program saw in 2020, the pandemic did  
18 not completely shut down activities entirely but required alternatives for continuing to reach SF  
19 customers. This challenge has thus far provided 3C-REN the opportunity to innovate and respond  
20 to the needs of the region under highly unusual circumstances. 3C-REN will continue to seek  
21 creative adaptation to continue serving HTR customers through this unpredictable time and will  
22 also need to plan with sensitivity to the still relatively unpredictable nature of this variable.

23

1                   **B.       Residential Sector Goals, Objectives, and Strategies**

2                   3C-REN’s goals, objectives, strategies, and tactics for the Residential sector are shown in  
3 the table below and detailed in the sections that follow. This application includes two existing 3C-  
4 REN programs in the residential sector: the single family program to serve properties with one to  
5 four units and the multifamily program to serve properties with five or more units.

1

2 **Table 46: 3C-REN Residential Sector – Goals, Objectives, Strategies, and Tactics**

Goal	Objective	Strategy	Tactic
<p>I. 3C-REN program marketing and education messaging will reach 20 percent of regional residents, and program participants will achieve 10-15 percent residential energy usage reductions per residential unit, on average.</p>	<p>1. Fifty percent of residential projects serve hard to reach (HTR) customers.</p>	<p>A. Increase energy efficiency (EE) opportunities for HTR residential customers through regionally focused and designed programs that incentivize energy savings</p>	<p>a. Provide higher incentives for projects at HTR properties            b. Engage local contractors that have customer bases/relationships in HTR communities            c. Work with CBO partners to effectively communicate with HTR communities            d. Connect customers with complementary energy programs to offset upfront costs and encourage deeper savings            e. Target multifamily property owners to implement energy upgrades.            f. Identify groups of rural neighborhood cohorts interested in making EE upgrades and facilitate connections with contractors who can conduct neighborhood sweeps</p>
	<p>2. Renter-occupied homes and apartments make up at least 40 percent of residential projects.</p>		
	<p>3. High performance measures are included in an average of 10 percent of residential sector projects</p>	<p>B. Offer increased Incentives for projects that implement high-performance measures</p>	<p>a. Provide additional incentive adders for high performance measures            b. Connect customers with complementary energy programs to offset upfront costs and drive deeper savings</p>
	<p>4. Drive demand for EE and high performance measures by sharing resources to a broad residential audience utilizing partner networks to reach residents</p>	<p>C. Educate residents about the value of energy efficiency and high-performance measures.</p>	<p>a. Expand 3C-REN's network of CBOs, PAs, and other relevant groups to foster exchange of information and cross promotion of other agency programs            b. Create opportunities for engagement with previous customers in order to identify additional energy upgrades and reach their networks            c. Leverage The Switch is On resources to develop local education campaign, and deliver in partnership with wider network of CBOs, CCAs, IOUs, etc.            d. Create opportunities for customers to interact with new technology (e.g. Library of Things/DIY Toolkit)            e. Market Multifamily program to renters in addition to property managers</p>

Goal	Objective	Strategy	Tactic
II. 3C-REN residential programs will support local economic development and job creation by working with local contractors on an average of 35 percent of residential projects.	1. Increase number of contractors that participate in residential programs by 5 percent annually	A. Increase local workforce opportunities by creating demand for EE upgrades and retrofits in the region.	a. Engage continuously with local workforce and coordinate with BPT to determine feasibility of program design and improvements b. Collaborate with BPT and outside workforce organizations (e.g. Workforce Development Boards) to inform training opportunities (soft skills, etc.) based on lessons learned in RES program implementation c. Target BPT participants for participation in RES programs d. Establish contractor financing mechanisms to offset delayed incentive payments e. Encourage residents to share SF aggregator enrollment information with their contractor of choice
		B. Connect residents with local contractors for energy efficiency and high-performance projects.	a. Encourage residents to share SF aggregator enrollment information with their contractor of choice b. Highlight locally based aggregator partners in SF program

1

2

1                                    ***1. Goal I***

2                    Goal I. 3C-REN program marketing and education messaging will reach 20 percent of  
3 regional residents, and program participants will achieve 15 percent residential energy usage  
4 reductions per residential unit, on average.

5                    **a. Objectives**

6                    3C-REN has identified the following objectives to measure its incremental progress toward  
7 achieving Goal I:

- 8                    • Objective 1: Fifty percent of residential projects serve HTR customers
- 9                    • Objective 2: Renter occupied homes and apartments make up at least 40 percent  
10                    of residential projects
- 11                    • Objective 3: High performance measures are included in an average of 10 percent  
12                    of residential sector projects
- 13                    • Objective 4: Drive demand for EE and high-performance measures by sharing  
14                    resources to a broad residential audience utilizing partner networks to reach at  
15                    least 25 percent of residents

16                    To meet these objectives and support Goal I, 3C-REN proposes the following strategies  
17 and tactics.

18                    **b. Strategy I-A. Increase EE opportunities for HTR residential customers through**  
19                    **regionally focused and designed programs that incentivize energy savings**

20                    3C-REN intends to offer services to all residents in the three counties, however, it is  
21 committed to and will prioritize outreach and interventions for HTR and underserved populations.  
22

23                    HTR criteria for residential customers derive from the definition in Resolution G-3497.  
24 The two primary criteria are language and geography. The Tri-County Region includes a large  
25 Hispanic population with Spanish as the primary language for 24 percent of the population. Two

1 of the three counties that make up 3C-REN (the counties of San Luis Obispo and Santa Barbara)  
2 meet the geographic criteria for residents, with homes in areas other than the United States Office  
3 of Management and Budget Combined Statistical Areas of the San Francisco Bay Area and the  
4 Greater Los Angeles Area.

5 The other HTR criteria relate to income and housing type. Tri-county residents who are  
6 hard-to-reach due to income, include rural populations with higher rates of poverty, as well as  
7 moderate income residents who may struggle with higher housing costs and cost of living in this  
8 region. Multifamily and mobile home tenants meet the criteria for housing type. In combination  
9 with the primary geographic criteria, this means all multifamily residents in two of the three 3C-  
10 REN counties are considered HTR.

11 In addition to HTR, 3C-REN's residential sector programs will prioritize outreach to drive  
12 equity outcomes in other key populations that are underinvested and underrepresented in  
13 traditional utility energy efficiency programs. This will include Disadvantaged Communities  
14 (DACs), Environmental and Social Justice Communities, and underserved communities.

15 As indicated by residential sector stakeholders in 3C-REN's listening sessions that  
16 informed this application, these communities need additional funding and focused  
17 communications in addition to support to navigate energy efficiency opportunities. They benefit  
18 from engagement with small local organizations acting as trusted messengers and from cross-  
19 cutting approaches that consider the interplay between workforce and residential energy  
20 efficiency. Additionally, as indicated in 3C-REN's previous single-family program, HTR  
21 customers are interested in making EE upgrades, but costs are often prohibitive. By both making  
22 these measures more affordable and employing effective messaging, 3C-REN will be able to serve  
23 more HTR homes with energy efficiency upgrades.

1 With its prior experience serving HTR and underserved residential populations in addition  
2 to its wide network of relationships with workforce and local community organizations, 3C-REN  
3 is ideally positioned to deliver equity-focused residential programs tailored to the region. In its  
4 previous single-family program, 3C-REN served approximately 700 homes with direct install  
5 projects while also navigating the early challenges of the COVID-19 pandemic. Additionally,  
6 partnering with People’s Self Help Housing on projects upgrading farm worker housing allowed  
7 the program to install 197 heat pump water heaters. 3C-REN will continue to build customer  
8 awareness and stakeholder partnerships, citing this success and future opportunities for HTR  
9 customers. By targeting energy efficiency for HTR residents, 3C-REN will support its sector goal  
10 for residential outreach and energy usage reductions while aligning with its equity segment and  
11 portfolio strategies. The following tactics and activities are proposed to support this Residential  
12 sector strategy.

13 ***Tactic: Provide higher incentives for projects at HTR properties***

14 One of the barriers facing HTR, DAC, and underserved residential customers is income.  
15 Approximately eight percent of the Tri-Counties’ communities live in rural areas and about 13  
16 percent live in small towns with less than 8,000 people. These populations tend to have higher  
17 rates of poverty. Other residents who are considered moderate income may still be financially  
18 challenged by the region’s higher housing costs and cost of living. Household income,  
19 unemployment, and cost of living issues have been exacerbated over the past two years with the  
20 COVID-19 pandemic, and the Tri-County Region has been especially impacted by the virus.  
21 Households who could most benefit from equipment upgrades and energy bill savings often cannot  
22 afford the incremental costs needed to participate in traditional energy efficiency programs.

23 HTR customers will require more outreach and contractor travel time to rural areas.  
24 Language barriers and additional home repairs can also impact the sales process and project

1 completion. Such challenges will likely make projects more costly or complex for customers and  
2 contractors. Disadvantaged communities are more likely to live in older buildings with structural  
3 or design issues that make energy efficiency retrofits unviable. These factors can dissuade  
4 contractors from targeting HTR, DAC, and other underserved residents when working in energy  
5 efficiency programs that are performance-based or provide incentives to contractors. For these  
6 reasons, 3C-REN proposes to provide higher incentives for projects serving HTR and underserved  
7 properties that will lower the cost for contractors, property owners, and/or end-use customers as  
8 appropriate.

9 ***Tactic: Engage local contractors that have customer bases and relationships in HTR***  
10 ***communities***

11 The contractor community is an important link between energy efficiency programs and  
12 residential customers. This is especially true for initiatives targeting HTR and underserved  
13 communities. Locally based contractors with existing connections to HTR and underserved  
14 residents can directly inform these communities of program benefits.

15 3C-REN will engage these contractors in both the single and multifamily programs. In the  
16 single-family program, 3C-REN (and implementer partners) will recruit local contractors to sign  
17 up for the program as Aggregators . Participating contractors can then access the incentive streams  
18 based on metered savings for residential customers. In the multifamily program, 3C-REN will  
19 provide technical support for multifamily property owners in planning for energy upgrades. The  
20 technical support will include lists of local contractors. Additionally, property owners can conduct  
21 energy upgrades using the contractor of their choice. As 3C-REN engages with multifamily  
22 property owners in HTR communities, the intention is that local contractors who regularly serve  
23 these communities will learn about the program and communicate the benefits to other local  
24 multifamily customers.

1           3C-REN is well positioned to engage contractors with an extensive network of regional  
2 contractor firms from its Building Performance Training (BPT) Program and the Counties’  
3 previous work with the emPower Program. In the 2020 program year, 3C-REN offered 33 BPT  
4 training events which were attended by 416 participants total (296 unique individuals). In the same  
5 year, 3C-REN developed partnerships with key stakeholders to develop career pathways for HTR  
6 workers in the building profession. In its prior work with the emPower program, which ran from  
7 2013 through 2018, the three counties built a network of 37 contracting companies and hosted  
8 more than 76 local workforce trainings.

9           By engaging with local and regional networks of contractors who have customer bases and  
10 relationships in HTR and underserved communities, 3C-REN can also support its residential sector  
11 Goal II regarding economic development and job growth for local contractors. This strategy also  
12 aligns with 3C-REN’s cross-cutting Workforce, Education and Training (WE&T) goals and  
13 strategies supporting hard-to-reach and disadvantaged workers.

14           ***Tactic: Work with CBO partners to effectively communicate with HTR communities***

15           Community-based organizations (CBOs) are vitally important partners for conducting  
16 effective outreach to HTR communities. CBOs have existing connections with communities and  
17 can serve as trusted messengers regarding specific program opportunities as well as overall  
18 benefits of energy efficiency and high-performance equipment. Moreover, by partnering with these  
19 organizations, 3C-REN helps support those organizations by building on the momentum and  
20 interest they already have in their communities.

21           3C-REN and its member agencies have strong relationships with CBOs in the Tri-County  
22 Region. 3C-REN proposes to engage CBOs throughout the program lifecycle. 3C-REN will  
23 incorporate CBOs’ insights and work collaboratively to develop strategies for effective messaging  
24 that resonates with HTR and underserved communities. In both the single-family and the

1 multifamily program, local nonprofit Community Environmental Council (CEC-SB) is a  
2 subcontractor for marketing education and outreach activities. CEC-SB has their own connections  
3 with HTR communities and will partner with other CBOs to deliver program messaging. 3C-REN  
4 will also launch a partnership with the Santa Barbara County Promotores Network to reach  
5 Spanish-speaking customers in the county and may expand Promotores’ outreach to other counties  
6 if successful.

7 ***Tactic: Connect customers with complementary energy programs to offset upfront costs***  
8 ***and encourage deeper savings***

9 Increasing access for residential HTR, DAC, and underserved customers to energy  
10 efficiency programs is critical for achieving equity, energy, and climate goals. The Equity  
11 Framework adopted by the Disadvantaged Communities Advisory Group indicates that “Access  
12 and Education are key to ensuring that Disadvantaged Communities benefit from clean energy  
13 technologies, energy efficiency, and other environmental investments.”

14 This imperative to increase program access is underscored by sentiments shared in the  
15 recent listening sessions 3C-REN conducted to inform this application. Residential sector  
16 stakeholders indicated that awareness of and complexity surrounding program opportunities  
17 continues to be a barrier, and that it is “overwhelming to try and figure out all the different options.”  
18 Stakeholders urged 3C-REN to be part of the solution in continuing to expand awareness,  
19 suggesting that programs “meet people where they are at, and don’t make them come to you.”

20 3C-REN is ideally positioned to provide this personalized and holistic support to residential  
21 customers, especially HTR, DAC, and underserved communities. 3C-REN supports increased  
22 equity and access through its own regionally focused program offerings, also by connecting  
23 customers with packaged and layered opportunities from complementary energy programs that  
24 may benefit them. The three counties have worked diligently to establish and maintain cooperation

1 with other energy efficiency PAs in the region through their annual Joint Cooperation  
2 Memorandums and ongoing coordination efforts. They additionally work with organizations such  
3 as Community Choice Energy providers that offer programs focused on renewable energy, clean  
4 transportation, and other complementary objectives. By maintaining the lines of communication  
5 between other programs, 3C-REN serves as a knowledgeable and trusted local guide for customers  
6 to help them navigate the complex array of opportunities available to them.

7 The multifamily program's design is especially suited to connect customers with  
8 complementary programs. The program provides technical support to establish a scope of work  
9 for property owners' energy upgrades. The technical support will also provide guidance on local  
10 and regional programs that support these upgrades. The guidance and coordination efforts will go  
11 beyond direct energy programs in some cases. For instance, retrofits and upgrades may identify  
12 additional required work beyond the original scope of work due to characteristics in the home that  
13 were previously unknown (e.g. the need for asbestos abatement, mold, exposed lead paint, etc.).  
14 In order to further support HTR customers, the multifamily program will work with CBOs,  
15 contractors, and other stakeholders to identify additional resources to support these costs and  
16 include them in in the technical support whenever possible. These resources will also be shared  
17 with Aggregators in the single-family program and may be included in other outreach materials.

18 ***Tactic: Target multifamily property owners to implement energy upgrades.***

19 In order for the program to upgrade entire buildings efficiently, the program will target  
20 multifamily property owners in the region for comprehensive projects that can also benefit from  
21 other regional services. In addition, successfully completed projects on one property can open  
22 additional opportunities at owners' other properties in addition to positive word of mouth amongst  
23 owners. The program will target properties directly in addition to property management companies

1 and organizations. The program will also work with key contacts who can provide introductions  
2 and the opportunity to present the program to potential participants.

3 ***Tactic: Identify groups of rural neighborhood cohorts interested in making EE upgrades***  
4 ***and facilitate connections with contractors who can conduct neighborhood sweeps***

5 As stated above, the Counties of San Luis Obispo and Santa Barbara meet the HTR  
6 geographic criterion. Therefore, including efforts to bring energy efficiency and high performance  
7 measures to rural communities will be essential in succeeding in Goal 1. The Single-family  
8 program will work with the program implementor to identify potential aggregators/contractors  
9 whose customer recruitment flow would open up the most opportunity to identify and establish  
10 rural neighborhood cohorts who otherwise would be excluded from making EE and high  
11 performance upgrades. 3C-REN will also work with CBOs to also identify such communities and  
12 connect them with contractors who could service the entire cohort. 3C-REN will facilitate the  
13 engagement as well as the identification of additional services the contractors and CBOs can  
14 connect each neighborhood to in order to bring residents more services.

15 **c. Strategy I-B. Offer increased incentives for projects that implement high-**  
16 **performance measures**

17 In order to achieve its goal for residential energy usage reduction, it is of critical importance  
18 that 3C-REN encourage the awareness and installation of high-performance measures for the  
19 residential segment including heat pump water heaters, heat pump space heaters, and induction  
20 cooktops. It is crucial to prioritize these measures due to their potential GHG emissions reduction  
21 benefits, potential for load shifting, and general efficiency of operation.

22 High performance measures face significant challenges to deep market penetration despite  
23 their benefits. Foremost, cost is a significant hurdle for widespread adoption; equipment,  
24 installation, and permitting costs are often high for these projects. It is also often inconvenient for  
25 customers to adopt these technologies because of equipment shortages, general lack of information

1 on the benefits of the technologies, and other factors associated with the technologies' nascent  
2 stage of local deployment. Residential customers often look to replace appliances at their end of  
3 operational life. However, when a water heater or furnace goes out, there is no time to navigate  
4 confusing or lengthy processes to replace them with high performance measures, especially when  
5 they are more expensive.

6 Incentives that target high performance measures address the financial barriers of  
7 deployment and may offset some inconveniences of installation as well. Most directly, incentives  
8 reduce the cost of equipment and installation. However, a secondary benefit is that, as more  
9 customers install heat pumps, etc., the inconveniences associated with a newer technology are also  
10 likely to decrease. For instance, in 3C-REN territory, it is difficult to find a contractor to install a  
11 ducted heat pump system. With little demand for the measure, contractors do not have the training  
12 and experience to install them and/or the equipment is not readily available. However, as prices  
13 come down with 3C-REN program (and other) incentives, there will likely be an increase in  
14 demand for these technologies. Contractors will respond to market signals and will be more  
15 prepared to install high performance measures. As high-performance measures become more  
16 mainstream, the processes to install them will become more streamlined and accessible. In turn,  
17 prices for these measures will continue to drop.

18 3C-REN is well positioned to encourage and incentivize high performance measures. As a  
19 tier one partner of The Switch is On campaign, 3C-REN plans to lead local outreach for the  
20 statewide electrification campaign. Additionally, 3C-REN's BPT program continues to develop  
21 local contractor expertise in high performance measures, ranging from technical to financial. The  
22 following tactics and activities are proposed to support this Residential sector strategy.

1           ***Tactic: Provide additional incentive adders for high performance measures***

2           In the metered savings approach to 3C-REN's single-family program, high performance  
3 projects do not receive the same financial incentives as other measures that reduce energy use. In  
4 this program, incentives are paid for metered kWh and therm savings, but because kWh usage  
5 increases with high performance projects, the incentives paid for the therm savings are not  
6 expected to be high enough to drive these projects towards completion, despite their benefits.  
7 Given the barriers to adoption, 3C-REN has identified the need to further incentivize these projects  
8 and will work with the implementer to develop incentive adders through this program to influence  
9 customer decisions and lead to high performance measure adoption.

10           In the GHG emissions reduction approach to 3C-REN's multifamily program, it is similarly  
11 important to further incentivize high-performance measures. In this program, projects with scopes  
12 of work that include high performance measures are eligible for rebate adders on top of the  
13 standard base rebates. The adders vary by equipment type but are designed to be high enough to  
14 overcome the financial and inconvenience obstacles to high performance measure adoption.

15           ***Tactic: Connect customers with complementary energy programs to offset upfront costs***  
16           ***and encourage deeper savings***

17           Incentivizing high performance measures is not only a priority for 3C-REN, but for IOUs,  
18 CCEs, and other agencies that are working to reduce GHG emissions in support of local, state, and  
19 federal climate goals and legislation. 3C-REN's territory includes three IOU and three CCEs, who  
20 may offer educational or financial mechanisms to support the adoption of high-performance  
21 measures. 3C-REN's residential programs will connect customers to these programs to  
22 compliment the incentives available through the single and multifamily programs with the goal of  
23 equitable distribution of program funding, deeper savings and increased resiliency.

1 Complimentary programs include but are not limited to the TECH program, SGIP program, and  
2 local offerings that are in development by CCEs.

3 **d. Strategy I-C. Educate residents about the value of energy efficiency and high-**  
4 **performance measures.**

5 In order to create demand for energy efficiency improvements and high-performance  
6 measures, an awareness and understanding of the technologies and their value must be developed.  
7 During a listening session conducted as part of the business plan development, 3C-REN identified  
8 gaps in dissemination of information to middle income and disadvantaged communities.<sup>114</sup>  
9 Additionally, renters and landlords have been historically difficult customers to serve due to split  
10 incentives across the two parties.

11 Additional community feedback indicated that partnering with trusted community  
12 resources such as property owners' associations, places of worship, or other community or  
13 professional groups would be an effective and efficient way to reach people.<sup>115</sup> Leveraging existing  
14 gatherings and online events are prime opportunities to provide program participation information,  
15 and build understanding of new technologies that are available, how they work, and what the  
16 benefits are.

17 3C-REN understands it is critical to know what is important to customers, and which  
18 benefits provided by energy efficient upgrades customers value and be able to communicate the  
19 full range of both energy and non-energy benefits. Through this strategy targeting education for  
20 residents, 3C-REN will support its sector goal for residential outreach and energy usage reductions

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<sup>114</sup> 3C-REN Business Plan Listening Session: Residential Sector. July 2021.

<sup>115</sup> Ibid.

1 while aligning with its equity segment and portfolio strategies. The following tactics and activities  
2 are proposed to support this Residential sector strategy.

3 ***Tactic: Expand 3C-REN's network of CBOs, PAs, and other relevant groups to foster***  
4 ***exchange of information and cross promotion of other agency programs***

5 Expanding the network of relationships with partner organizations will be critical to  
6 building awareness of the residential programs. 3C-REN and its implementation partners will  
7 conduct traditional marketing, education, and outreach efforts such as workshops, email  
8 campaigns and digital or print advertisements. Another tactic to build awareness will be to partner  
9 with and leverage communication channels of established and trusted resources who provide  
10 complementary services or serve 3C-REN's target audience. The cross promotion of programs  
11 provided by other agencies such as IOUs, CCEs and CBOs, will serve two purposes: spreading  
12 awareness of programs and resources through a diverse network of sources, and helping to ensure  
13 customers develop comprehensive projects by understanding the scope of programs and resources  
14 available.

15 ***Tactic: Create opportunities for engagement with previous customers in order to identify***  
16 ***additional energy upgrades and to reach their networks***

17 3C-REN's experience implementing residential energy efficiency programs has proven that  
18 customers do not always have the interest or ability to complete all recommended energy efficiency  
19 upgrades at once. Up-front costs can be substantial, and energy efficiency upgrades must compete  
20 with often more desirable renovations.

21 Both the single-family and multifamily programs will meet customers where they are by  
22 helping them develop a project scope within their budget and build in opportunities to re-engage  
23 with them later. The design will encourage customers to make improvements as they are able to  
24 by spreading out work and costs over time. Customers may also reengage with programs when a  
25 major appliance is approaching its end of useful life, or when a customer is planning for future

1 capital improvement projects. This approach contrasts with previous state-wide programs that  
2 required tens of thousands of dollars-worth of upgrades in order to receive a rebate and is more  
3 well-suited to 3C-REN's target audience.

4 3C-REN will similarly reach out to past emPower participants to identify customer interest  
5 in pursuing projects beyond their initial engagement through the new programs. Customers that  
6 benefit from program incentives may share information with their networks to establish referrals  
7 to 3C-REN's residential programs.

8 ***Tactic: Leverage The Switch is On resources to develop local education campaign, and***  
9 ***deliver in partnership with wider network of CBOs, CCAs, IOUs, etc.***

10 Frequent and consistent messaging delivered through a variety of media from multiple  
11 sources will be key to 3C-REN's education campaign strategy. As a tier one partner of The Switch  
12 is On campaign, 3C-REN will have access to and be able to leverage uniform educational  
13 materials. Assets and collateral available to 3C-REN include digital and print written educational  
14 materials, videos, and infographics that can be posted across media platforms, used in  
15 presentations, or during direct interaction with customers. 3C-REN will also share The Switch is  
16 On outreach materials with local agencies and CBOs to reach broader audiences, and to ensure  
17 that customers have multiple points of exposure to the messaging. Other The Switch is On partners  
18 include IOUs and CCAs, all of whom will be delivering the same messages through their own  
19 channels, expanding the campaign's reach and recognition.

20 ***Tactic: Create opportunities for customers to interact with new technology (e.g. Library***  
21 ***of Things/DIY Toolkit)***

22 New technology skepticism and lack of understanding can be a barrier to uptake. This can  
23 be especially true when ideas about the new or existing technology are deeply engrained, or the  
24 upfront costs are greater for a new technology, even if it will save on energy costs in the long run.

1 Such barriers can be broken down by creating opportunities for customers to learn about and  
2 interact with new technology.

3 3C-REN currently offers Do-It-Yourself Home Energy Toolkits through the network of  
4 libraries throughout the Tri-County Region. The toolkits include tools customers can use to learn  
5 about and measure energy use in their homes, as well as a number of items that can be easily  
6 installed to help start saving immediately. Expanding this kit to include induction cooktops is an  
7 opportunity to allow customers to experience a new, more efficient technology without the  
8 commitment of purchasing one outright. 3C-REN may also host events for customers to see  
9 demonstrations of, or experience other new technologies, such as heat pumps, to help further break  
10 down any misunderstandings or misconceptions of how they work or how effective they are.

11 ***Tactic: Market Multifamily program to renters in addition to property managers***

12 A majority of multifamily housing throughout the Tri-County Region is renter-occupied,  
13 and therefore encounters the split-incentive barrier. While owners or managers of multifamily  
14 properties are 3C-REN's primary target for the multifamily program, renters are also a target  
15 audience and can play a role in advocating for improvements that will benefit both the property  
16 owner and themselves. Marketing the multifamily program to renters will include providing  
17 traditional information on energy efficiency, high-performance technology, and the benefits they  
18 provide to the resident as well as strategies for talking about or presenting upgrade opportunities  
19 and benefits to their landlord, and how to connect them with the program.

20 **2. Goal II**

21 3C-REN residential programs will support local economic development and job creation  
22 by working with local contractors on an average of 35 percent of residential projects.

1           **a. Goal II Objectives**

2           3C-REN has identified the following objective to measure its incremental progress toward  
3 achieving its goal for local economic development and job growth:

- 4           • Objective 1: Increase number of contractors that participate in residential  
5 programs by 5 percent annually

6           To achieve this objective and support the overall sector goal outlined above, 3C-REN  
7 proposes the following strategies and tactics.

8           **b. Strategy II-A. Increase local workforce opportunities by creating demand for EE**  
9           **upgrades and retrofits in the region.**

10          3C-REN recognizes the need in the Tri-County Region to develop a contractor base who  
11 can install energy efficiency and optimization upgrades. The residential programs will serve to  
12 increase demand for energy efficiency projects and support local contractors in accessing these  
13 jobs.

14          ***Tactic: Engage continuously with local workforce and coordinate with BPT to determine***  
15          ***feasibility of program design and improvements***

16          Keeping open communication channels with the local workforce and BPT will support the  
17 success of the single and multi-family programs. In regularly seeking input from these channels,  
18 the residential programs can be informed by the current workforce’s understanding of the market  
19 and better prepared for the challenges regionally and more broadly in residential energy efficiency  
20 upgrades. In collaborating with BPT, the residential programs can tailor contractor recruitment  
21 and engagement through lessons learned through BPT workforce training and research.

22          ***Tactic: Collaborate with BPT and outside workforce organizations (e.g. Workforce***  
23          ***Development Boards) to inform training opportunities (soft skills, etc.) based on lessons***  
24          ***learned in RES program implementation***

25          As BPT work with contractors can inform the residential programs’ activities, the  
26 residential programs can reciprocate this knowledge sharing. The program will be able to assess

1 through its projects an understanding of local contractors’ knowledge of energy efficiency and  
2 optimization upgrades. Working with BPT, the program can assess worker training needs in the  
3 field from technical skills and hands on training to the development of soft skills and business  
4 management acumen.

5 ***Tactic: Target BPT participants to apply to participate in RES programs***

6 3C-REN and the implementors will educate BPT participants about the residential  
7 programs. This will also serve the goal of using multiple touchpoints to build contractor and  
8 customer awareness of the residential programs and their benefits. The RES programs will  
9 coordinate with the BPT program to identify the best opportunities to promote the RES programs.

10 ***Tactic: Establish contractor financing mechanisms to offset delayed incentive payments***

11 The Single-Family program’s population NMEC design drives contractors to deliver  
12 measurable energy savings to their customers, but also has an element of delayed payment as the  
13 kWh and therm savings have to be measured over the course of year before the savings can be  
14 confirmed. Larger energy efficiency firms may not be as impacted by the delay in incentive  
15 payments, but smaller local firms may struggle to provide the upfront investment for projects with  
16 such a delay in payment. The program implementer at the time of this filing has established  
17 financing mechanisms for other metered savings programs in the State<sup>116</sup> and plans to work with  
18 3C-REN to develop appropriate regional financing to support local contractors in participating in  
19 the program.

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<sup>116</sup> <https://www.demandflexmarket.com/mce.html#!directory>

1           ***Tactic: Encourage residents to share SF aggregator enrollment information with their***  
2           ***contractor of choice***

3           The Single-Family residential program utilizes aggregators (enrolled contractors) who can  
4           access incentives for the metered savings of their clients. This design allows for contractors to be  
5           paid for energy savings without changing their model of service, as the program does not target  
6           specific measures, rather offers incentives for metered energy savings. Thus, participating  
7           contractors can deliver energy upgrades to meet the needs of their clients and be paid incentives  
8           to do so as long as the projects result in metered energy savings. The program intends to improve  
9           the energy efficiency and optimization of residences seeking maintenance, repair, and replacement  
10          of appliances and other measures. Working with customers during these windows of opportunity  
11          can yield more opportunities for converting homes to higher efficiency measures that the customer  
12          is seeking in addition to potentially making additional upgrades to add further energy savings.

13          Although program marketing will be most focused on recruiting contractors to enroll as  
14          Aggregators in the single-family program, there will also be some element of outreach to residents  
15          to support the contractor enrollment process. As Aggregators will be able to offer competitive  
16          pricing (because of incentive payments), it is in the best interest of local residents to work with  
17          contractors that have enrolled in the single-family program. Residential customers, therefore, may  
18          support their local contractors in learning about the program and enrolling. In support of this goal,  
19          3C-REN will conduct some outreach about the program's cost saving benefits to the general  
20          public. The program will also consider one-time referral incentives to customers who encourage  
21          contractors in their area to become an aggregator. The program design's flexibility allows residents  
22          to work with their contractor of choice, but 3C-REN's intention is that local contractors will chose  
23          to opt into the program so that they can be price competitive with outside firms.

1           **c. Strategy II-B. Connect residents with local contractors for energy efficiency and**  
2           **high-performance projects**

3           In order to achieve its goal for local economic growth in the energy efficiency market, it  
4 is of critical importance that 3C-REN support residents in working with local contractors to  
5 complete their energy upgrades. To encourage residents to work with local contractors, 3C-REN  
6 will employ marketing and outreach tactics to engage local contractors in the programs and to  
7 highlight their work. 3C-REN is well positioned to engage local contractors and highlight their  
8 work to the community because of the connection with both residents and local contractors. 3C-  
9 REN regularly connects with contractors through the Building Performance Training and the  
10 Energy Code Connect programs. 3C-REN also has communication channels with residents since  
11 the agency is run by local governments. 3C-REN utilizes the outreach channels of partner county  
12 governments as well as other local municipalities and CBOs to reach residents about energy  
13 program offerings.

14           Through this strategy targeting customer engagement with the local workforce, 3C-REN  
15 will support its sector goal for local economic development and job growth while aligning with its  
16 equity segment and portfolio strategies. The following tactics and activities are proposed to support  
17 this Residential sector strategy.

18           ***Tactic: Encourage residents to share SF aggregator enrollment information with their***  
19           ***contractor of choice***

20           This tactic was also mentioned as supporting Strategy II-A. In addition to supporting local  
21 workforce opportunities, having residents encourage their local contractors to participate in the  
22 single-family program will also serve to support Strategy II-B: connecting residents with local  
23 contractors. Local contractors that have established customer bases in the region will be the most  
24 likely to reach HTR customers. Therefore, if residents support the process of recruiting these  
25 contractors into the program, the benefits will likely increase. First, these contractors will be able

1 to offer more competitive pricing as a result of becoming an aggregator. Second, word of mouth  
2 referrals for these contractors will mean better local business opportunities and more connections  
3 to residents.

4 ***Tactic: Highlight locally based aggregator partners in SF program***

5 Similar to the tactic above, this tactic focuses on highlighting local contractors enrolled in  
6 the single family demand marketplace program. In conducting EE/high performance measure  
7 awareness outreach, 3C-REN will develop case studies that feature local projects. These case  
8 studies will also feature local contractors (Aggregators), with the goal to drive more business to  
9 local demand marketplace contractors. Opportunities to highlight this work could include 3C-REN  
10 outlets as well as also radio and other media and the outreach channels of other local government  
11 and CBO partners. Additionally, the Single-family Program can provide local companies  
12 cobranded materials to help promote their work through the program.

1  
2

### C. Residential Sector Coordination

Entity	Coordinating Activities
<b>Trade allies and contractors</b>	<ul style="list-style-type: none"><li>• Build on existing connections and establish new relationships with local and regional market actors</li><li>• Gather input from stakeholders to refine program offerings and workforce development activities</li><li>• Coordinate with cross-cutting 3C-REN initiatives such as Building Performance Training (BPT) to ensure residential sector continues to be represented in offerings for workforce development</li><li>• Provide outreach to educate market actors and promote programs and training opportunities</li></ul>
<b>Industry associations and community based organizations</b>	<ul style="list-style-type: none"><li>• Build on existing connections and establish new relationships with local and regional market actors</li><li>• Gather input from stakeholders to refine program offerings</li><li>• Collaborate to develop co-branded sector-specific outreach materials</li><li>• Leverage sector-specific training opportunities and educational resources</li><li>• Identify outreach channels to distribute resources to members</li></ul>
<b>Other funding sources</b>	<ul style="list-style-type: none"><li>• Identify sector-specific funding sources</li><li>• Build relationships for continued coordination on layering opportunities</li><li>• Develop living document with information on sector-specific funding opportunities</li></ul>
<b>Other PAs in the region</b>	<ul style="list-style-type: none"><li>• Identify offerings from other program administrators in the region with relevance to sector</li><li>• Characterize eligibility criteria and participation pathways</li><li>• Establish relationships with program managers for further coordination</li><li>• Collaborate to develop approach for referring participants to optimize sector energy efficiency opportunities</li><li>• Partner to provide layered upgrades and incentives where possible</li></ul>

3  
4

### D. Categorization

5 3C-REN’s Single-family and Multifamily Residential sector programs are categorized in  
6 the equity segment. The CPUC in Decision 21-05-031 defined equity segment programs as  
7 “Programs with a primary purpose of providing energy efficiency to hard-to-reach or underserved  
8 customers and disadvantaged communities in advancement of the Commission’s Environmental  
9 and Social Justice (ESJ) Action Plan; Improving access to energy efficiency for ESJ communities,  
10 as defined in the ESJ Action Plan, may provide corollary benefits such as increased comfort and

1 safety, improved indoor air quality, and more affordable utility bills, consistent with Goals 1, 2,  
2 and 5 in the ESJ Action Plan.”

3 This categorization of residential programs into the equity segment supports 3C-REN’s  
4 overall segment strategy for equity programs, in alignment with guidance from CPUC in D.21-05-  
5 031 regarding RENs and program segmentation: “RENs, by their nature and primary purposes, are  
6 more likely to have a greater share of their portfolio devoted to market support and/or equity  
7 programs.” As outlined in the preceding sector strategies and the program details that follow, 3C-  
8 REN’s residential offerings are purpose-built to serve the region’s single-family and multifamily  
9 HTR, DAC, ESJ, and underserved communities.

10 **Table 47: Residential Sector Program Categorization by Segment**

Program	Categorization by Segment
Single Family Home Energy Savings	Equity
Multifamily Home Energy Savings	Equity

11

12 **E. Residential Sector Program Details**

13 The Program Cards for the Residential Programs are provided in Appendix A. New  
14 program details are not applicable. Program-specific coordination not applicable; please see sector  
15 coordination section.

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1                   **CHAPTER 5.    PORTFOLIO MANAGEMENT (A. TELLEZ)**

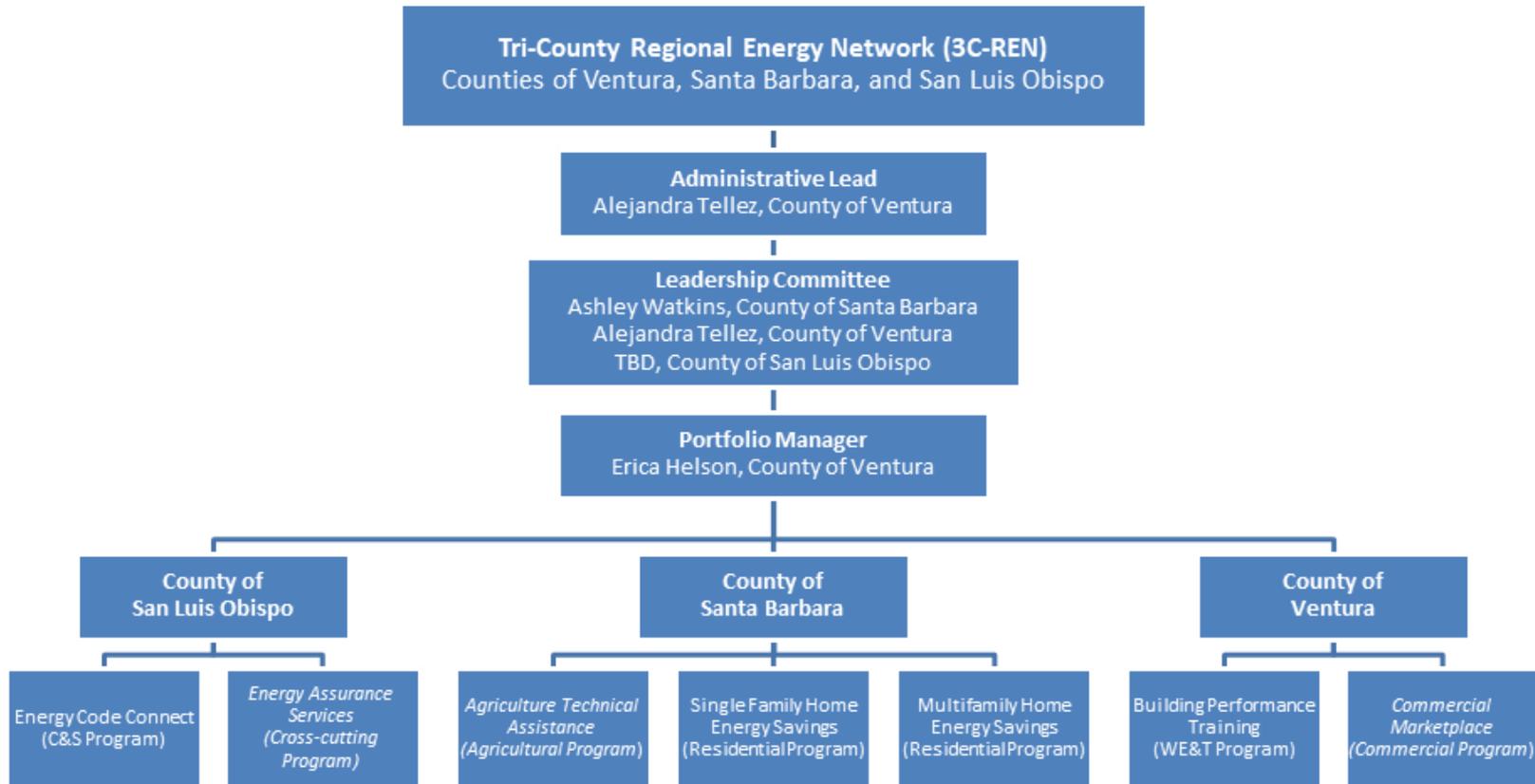
2                   **I.    OVERVIEW**

3                   3C-REN is a collaboration and joint venture among the Counties of Ventura, Santa  
4 Barbara, and San Luis Obispo to design and administer the delivery of a portfolio of regional,  
5 customized energy efficiency programs. 3C-REN’s overall administrative lead, or Lead County,  
6 is the County of Ventura. A Portfolio Manager hired by the County of Ventura is responsible for  
7 overseeing and ensuring coordination between 3C-REN’s portfolio of programs, as well as over-  
8 arching business functions that touch all programs.

9                   Each individual program in 3C-REN’s portfolio is administered by a single member  
10 County, or Program Lead County, based on existing expertise, strengths, and interest. One  
11 representative from the Program Lead County is selected - by the Program Lead County - to be  
12 the Program Manager. Each program has a Program Team, including at least one representative  
13 from each member county. The organizational chart that follows shows 3C-REN’s leadership team  
14 as well as the lead counties for existing and new programs proposed in this application.

15                  The subsections that follow describe 3C-REN’s strategies for portfolio optimization and  
16 risk management; approach to flexible portfolio management; planned procedures for course  
17 correction; and portfolio coordination. Also included are topics related to third-party programs.  
18 While 3C-REN does not offer third-party programs according to the CPUC definition, 3C-REN  
19 may engage consultants to support program delivery and has provided information in those  
20 sections including 3C-REN’s responsibility in relation to consultants and implementers,  
21 solicitation strategy including supplier diversity practices, statewide programs, risk mitigation, and  
22 contract management.

23  
24



1

2 **Figure 9: 3C-REN Organizational Structure**

1           **II. STRATEGIES TO OPTIMIZE PORTFOLIO AND MANAGE RISK**

2           **A. Approach to Use of Goals and Metrics for Portfolio Optimization**

3           3C-REN uses information technology solutions and active engagement with stakeholders  
4 to track program goals and metrics and inform portfolio optimization. These approaches help  
5 measure 3C-REN’s progress toward savings, equity, and market support outcomes, and inform  
6 continuous improvements to programs and the overall portfolio.

7           The majority of 3C-REN program data is tracked in a customer relationship management  
8 (CRM) database. 3C-REN uses the database to run reports and analysis on program data, as well  
9 as to build program "dashboards" for each program or service. These dashboards allow 3C-REN  
10 staff to visualize program metrics. For example, 3C-REN's WE&T dashboard for the Building  
11 Performance Training (BPT) program includes graphic representations of the number of events  
12 held monthly and year over year, the number of events taught per instructor, as well as the number  
13 of event attendees per event and per zip code. These visuals quickly reveal program insights, such  
14 as which times of year are busiest, which events are most well-attended, and which locations across  
15 the Tri-County Region are most active. 3C-REN's ResDI dashboard for the Multifamily Home  
16 Energy Savings program includes charts that represent things like the target number of leads the  
17 program intends to engage monthly to meet program goals versus the actual number of leads  
18 engaged per month. These reports and dashboards allow 3C-REN to determine areas of program  
19 success and potential challenges that require more staff attention.

20           3C-REN actively engages with its stakeholder communities to ensure they have  
21 opportunities for meaningful participation in the continuous improvement and optimization of 3C-  
22 REN’s portfolio as well. For example, part of 3C-REN’s stakeholder and participant feedback loop  
23 involves surveys of event and training attendees. The information gathered through these surveys  
24 supports 3C-REN’s quantitative tracking of program goals and metrics, and also allows for free-

1 form responses regarding what additional needs or ideas participants would like to share for future  
2 offerings. 3C-REN assesses this quantitative and qualitative data on an ongoing basis to inform  
3 program design and optimize its portfolio.

4 **B. Plans and Procedures for Staying “On-Target”**

5 Although CPUC has repeatedly and recently reaffirmed that RENs do not have a threshold  
6 for cost-effectiveness,<sup>117</sup> 3C-REN is committed to prudent use of ratepayer funds and ensuring its  
7 programs are effective, equitable, and inclusive. 3C-REN has a dedicated staff member and utilizes  
8 a database for highly detailed tracking of program and implementer performance. The database  
9 gives program managers real-time visibility into program progress toward energy savings, as well  
10 as other targets associated with value metrics, equity metrics, and market support metrics. This  
11 allows for timely identification of areas for improvement and course correction if needed, as well  
12 as identification of program efficiencies and successes that could be replicated to optimize other  
13 aspects of 3C-REN’s portfolio.

14 **C. Approach to Risk Management**

15 3C-REN utilizes a flexible approach to portfolio management that mitigates risk and allows  
16 3C-REN to be nimble in responding to unforeseen circumstances that may affect program uptake  
17 or partner performance. 3C-REN’s ongoing experience with the COVID-19 pandemic exemplifies  
18 how this flexible approach has been successful in managing risk.

19 In one example, 3C-REN’s Single Family Direct Install Program launched concurrent with  
20 the onset of the COVID-19 pandemic and was met with extreme hardship due to the lockdown and  
21 economic impacts that further devastated the hard-to-reach residential population the program was

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<sup>117</sup> D.21-05-031 at 52.

1 intended to serve. 3C-REN and its program partner quickly pivoted to researching and developing  
2 processes and procedures for providing all virtual services. The virtual services included video  
3 assessments, and for customers who either did not have, or were not comfortable with video  
4 technology, over-the-phone assessments. In addition to the virtual assessments, HES designed  
5 Energy Efficiency Starter Packs that could be delivered to, and easily installed by participants  
6 themselves. These services allowed the program to provide immediate energy savings to  
7 customers, while building a list of future projects with even more energy savings. Overall, Starter  
8 Packs were delivered to 178 customers, and 284 projects were completed.<sup>118</sup>

### 9 III. APPROACH TO FLEXIBLE PORTFOLIO MANAGEMENT

10 For 3C-REN to meet its goals and desired outcomes, flexibility must be retained with  
11 regard to several aspects of portfolio management. Flexibility in use of program budgets as well  
12 as in the ability to close programs and open new programs in existing sectors are critical for  
13 optimizing the use of ratepayer funds and ensuring programs are achieving goals and targets.

14 Flexibility in layering of various funding resources is of great importance for driving equity  
15 outcomes for HTR, DAC, underserved, and ESJ communities. As local governments, RENs have  
16 a unique ability to incorporate other funding resources such as infrastructure funds, which could  
17 be used to supplement energy efficiency program funding and expand program benefits to  
18 marginalized populations.

19 3C-REN's ability to optimize programs and portfolios relies on flexibility to be able to  
20 respond to new guidance from CPUC, such as the new portfolio segmentation approaches outlined  
21 in D.21-05-31. Flexibility is also necessary to allow 3C-REN to learn and respond to input from

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<sup>118</sup> 3C-REN 2020 Annual Report, p. 32-33.

1 program, sector, and segment stakeholders on changes needed to improve program uptake and  
2 customer satisfaction. Similarly, flexibility is important for 3C-REN to be able to incorporate  
3 findings related to EM&V, not just of 3C-REN programs but other evaluations across the state.

4 Another area where flexibility is needed relates to innovative program offerings such as  
5 3C-REN’s proposed cross-cutting sector offering for commercial and public facilities, the Energy  
6 Assurance Services program. This program proposes to deliver comprehensive load management  
7 to shape the customer experience. This involves providing a holistic and forward-focused  
8 assessment of their needs and technical assistance to achieve goals related to not just energy  
9 efficiency but also resiliency, sustainability, and other complementary interventions, such as  
10 preparing them to implement DERs to offer security from power shutoffs.

11 **IV. PLANNED PROCEDURES AND THRESHOLDS FOR COURSE**  
12 **CORRECTION**

13 As indicated earlier in the Portfolio Management section, 3C-REN has a dedicated staff  
14 member for tracking programs and database for real-time visibility into program progress toward  
15 energy savings, as well as other targets associated with value metrics, equity metrics, and market  
16 support metrics. This allows for timely identification of areas for improvement and course  
17 correction if needed. 3C-REN takes a proactive approach to course correction through the use of  
18 innovative and adaptive solutions. 3C-REN’s single family residential direct install program and  
19 its response to the COVID-19 shutdowns is an example of 3C-REN’s approach to course  
20 correction. After pivoting to deliver virtual home assessments and self-install energy efficiency  
21 kits, more adjustments were required and the program was refocused on opportunities that would  
22 yield higher energy savings, while identifying ways to improve program delivery.

1           **V.    THIRD-PARTY PROGRAMS**

2           While 3C-REN does not offer third-party programs according to the CPUC definition, 3C-  
3 REN may engage consultants to support program delivery. The following sections provide details  
4 on 3C-REN’s responsibility in relation to consultants and implementers, solicitation strategy  
5 including supplier diversity practices, statewide programs, risk mitigation, and contract  
6 management.

7                   **A.    Responsibility of 3C-REN in Relation to Third-Party Designers and**  
8                   **Implementers**

9           As indicated in the CPUC Decision D.12-11-015, the RENs were established as unique  
10 entities with the ability to design and deliver programs in ways that the utilities cannot. The RENs  
11 have “the independent ability, within the confines of the approvals of their proposals granted by  
12 the Commission, to manage, deliver, and oversee their own programs independently, without  
13 utility interference or direction as it relates to the design and delivery of their programs.” 3C-REN  
14 will leverage the expertise and creativity of local governments for program design and delivery.  
15 Any consultants contracted to assist in the design and implementation of discrete elements or entire  
16 programs will do so under the guidance and direction of 3C-REN.

17                   **B.    Solicitation Strategy**

18           As 3C-REN adds programs to its existing sectors and expands to new sectors, consultants  
19 may be engaged through solicitations for services to design and/or implement 3C-REN programs.  
20 For the benefit of potential bidders interested in providing such services, this Portfolio Plan  
21 includes a general outline of proposed 3C-REN programs and their envisioned implementation  
22 timelines. Any solicitation required for programs will be conducted according to the specific local  
23 government procurement protocols for the lead 3C-REN County, as outlined below.

1           3C-REN will follow current bidding and solicitation rules set by the Tri-Counties and led  
2 by County of Ventura as the lead agency. These rules were designed to ensure fair and equitable  
3 bidding in accordance with State and local laws. As a local government, 3C-REN’s procurement  
4 processes are open and transparent, and all contracts must be reviewed and executed by its Board,  
5 comprised of elected officials. Large contract approvals are agendaized and discussed at public  
6 Board meetings that are subject to the Brown Act. Built into 3C-REN’s procurement are  
7 compliance with State requirements found in statute, and local rules and procedures related to  
8 competitive solicitations. Those contracts that do not go to Board of Supervisors for approval  
9 follow the procurement review process that includes various levels of approvals from auditor  
10 controller and county counsel.

11           County of Ventura, as the lead agency for 3C-REN, will utilize County of Ventura  
12 Procurement procedures. The County of Ventura operates a centralized purchasing and materials  
13 management system, which is under the authority of the Purchasing Agent. The County of Ventura  
14 has a Vendor Self Service and Vendor Information Portal<sup>119</sup> that allows vendors to create and  
15 manage an account where they can search and respond to County bid opportunities, review  
16 financial transactions, and submit invoices. Procurement develops and utilizes a standard service  
17 contract that has been approved by County Counsel.

18                           ***1. Strategies for Designing Scope and Schedule of Solicitations***

19           As a REN program administrator, 3C-REN does not offer third-party programs according  
20 to the CPUC definition. However, 3C-REN may engage consultants to support program

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<sup>119</sup> Ventura County Procurement homepage last accessed February 2022 at <https://www.ventura.org/general-services-agency/procurement-services/>

1 development and implementation and those solicitations will be issued as needed for existing  
2 programs and as new programs come online.

3 **2. *Third-Party Solicitation Schedule***

4 As a REN program administrator, 3C-REN does not offer third-party programs according  
5 to the CPUC definition. However, 3C-REN may engage consultants to support program  
6 development and implementation and those solicitations will be issued as needed for existing  
7 programs and as new programs come online.

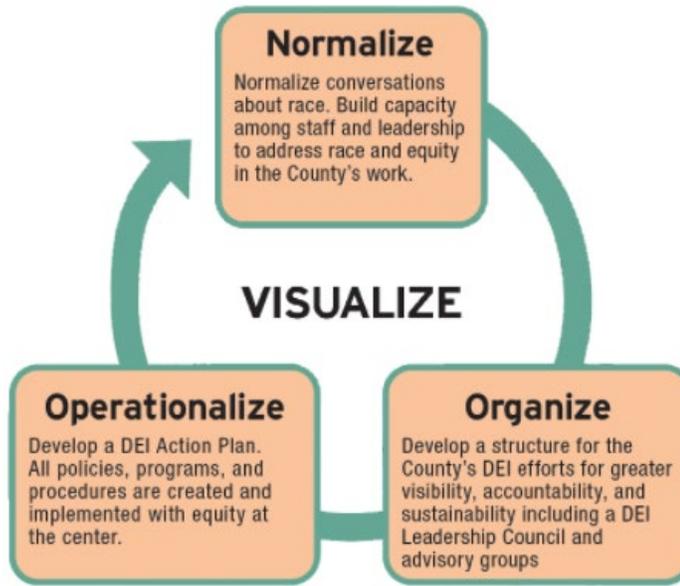
8 **3. *Risk Distribution***

9 3C-REN incorporates flexibility and diversity in its solicitation strategy in order to mitigate  
10 and distribute risk across its portfolio. 3C-REN contracts and partners with a wide range of  
11 organizations to provide program delivery services, from non-profit community-based  
12 organizations to other local government entities to for-profit consultants and companies. By  
13 employing a broad network of partners, 3C-REN is able to mitigate risk and flexibly manage its  
14 portfolio and ensure quality services are delivered for end-use program participants.

15 **4. *Incorporation of Input on Current Solicitation Practices***

16 As requested by stakeholders in the CAEEEC process during the previous business plan  
17 cycle, 3C-REN will post any request for proposal (RFP) and solicitations on the “Proposal  
18 Evaluation & Proposal Management Application” web site designed for energy efficiency  
19 programs, as well as on other sites as needed. Further, as requested by CAEECC stakeholders, 3C-  
20 REN will work with the IOUs to determine how the RENs may utilize common PA procurement  
21 channels, such as the IOU’s Proposal Evaluation & Proposal Management Application, if feasible  
22 and aligned with 3C-REN procurement policies.





1  
 2 **Figure 10: Ventura County Diversity Equity and Inclusion Council Planning Process for**  
 3 **Advancing Equity**  
 4

5 **b. Alignment with 3C-REN Overall DBE Target**

6 As a REN program administrator, 3C-REN does not offer third-party programs according  
 7 to the CPUC definition nor does it have an overall disadvantaged business enterprises (DBE)  
 8 contracting target set by General Order 156. However, 3C-REN’s solicitation strategies as  
 9 described in this application align with the intentions of the General Order for encouraging  
 10 contracting with DBEs. Ventura County, as the lead agency for 3C-REN, can provide guidance  
 11 through its connection to the Ventura County DEI Council as described in the previous section.  
 12 Moreover, through its ongoing WE&T program activities 3C-REN has built and continues to build  
 13 connections to DBEs in the region.

14 **6. Continued Stakeholder Engagement on Solicitation Process**

15 As an organization comprised of local governments, 3C-REN follows an open and  
 16 transparent solicitation process with continued stakeholder engagement built directly into its

1 procurement procedures. 3C-REN follows bidding and solicitation rules set by the Tri-Counties  
2 and led by the lead agency, the County of Ventura. These rules are designed to ensure fair and  
3 equitable bidding in accordance with State and local laws.

4 Ventura County General Services Agency Procurement Services Division is proud to have  
5 earned the Excellence in Procurement Award for 2000-2020<sup>121</sup> and adheres to the following  
6 procurement values established by NIGP: The Institute for Public Procurement, the authoritative  
7 national organization of public procurement:<sup>122</sup>

- 8 • Accountability – Taking ownership and being responsible to all stakeholders for  
9 our actions. This value is essential to preserve the public trust and protect the  
10 public interest.
- 11 • Ethics – Doing the right thing. Avoiding conflict of interests. Act ethically and  
12 responsibly to preserve the public trust and protect the public interest.
- 13 • Impartiality – Unbiased decision-making and actions. This value is essential to  
14 ensure fairness for the public good.
- 15 • Professionalism – Upholding high standards of job performance and ethical  
16 behavior. This value is essential to balance diverse public interests.
- 17 • Service – Obligation to assist stakeholders. This value is essential to support the  
18 public good.
- 19 • Transparency – Easily accessible and understandable policies and processes. This  
20 value is essential to demonstrate responsible use of public funds.

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<sup>121</sup> <https://www.ventura.org/general-services-agency/awards/>

<sup>122</sup> Procurement Services - Ventura County, <https://www.ventura.org/general-services-agency/procurement-services/>

1           The County of Ventura’s procurement process complies with State requirements found in  
2 statute, and local rules and procedures related to competitive solicitations. All contracts must be  
3 reviewed and executed by the Board of elected officials. Contract approvals are discussed at public  
4 Board meetings that are subject to the Brown Act. As local governments. The County of Ventura’s  
5 centralized purchasing and materials management system and Vendor Self Service portal allow  
6 for further transparency and stakeholder engagement, as described earlier in this section on  
7 Solicitation Strategy.

8           **C.       Statewide Programs**

9           3C-REN does not administer any statewide programs; however, 3C-REN has established  
10 approaches for coordination with other program administrators and statewide programs, as  
11 described in its Joint Cooperation Memos, for some portions of 3C-REN programs that may allow  
12 for and require coordination among programs. 3C-REN also provides referrals to statewide  
13 programs to program participants when appropriate, in order to support the best possible outcomes  
14 for program participants, residents, property owners, businesses, and jurisdictions in the Tri-  
15 County Region. 3C-REN will follow similar established protocols for coordination with utility  
16 programs to ensure coordination with statewide programs, and will communicate with other PAs  
17 to develop processes to operationalize coordination as new statewide programs are launched. 3C-  
18 REN will also continue to participate in Energy Division-led Peer Coordination Groups (PCGs).  
19 The statewide PCGs enable collaborative statewide discussions regarding all programs across all  
20 PAs throughout the state.

21           **D.       Assessment and Mitigation of Risk from Portfolio Diversity**

22           3C-REN utilizes a flexible and nimble approach to portfolio management that relies on a  
23 diverse field of consultants, contractors, and other partners to provide program delivery services.  
24 These diverse partners include small businesses, large businesses, not-for-profit organizations, and

1 community-based organizations. Some of these organizations are fairly new; others have decades  
2 of experience in energy efficiency. By spreading the responsibilities and risks for program  
3 performance across a wide and diverse set of program delivery partners, 3C-REN is able to retain  
4 flexibility, encourage innovation, and mitigate the risk to the overall portfolio of any one particular  
5 program or partner.

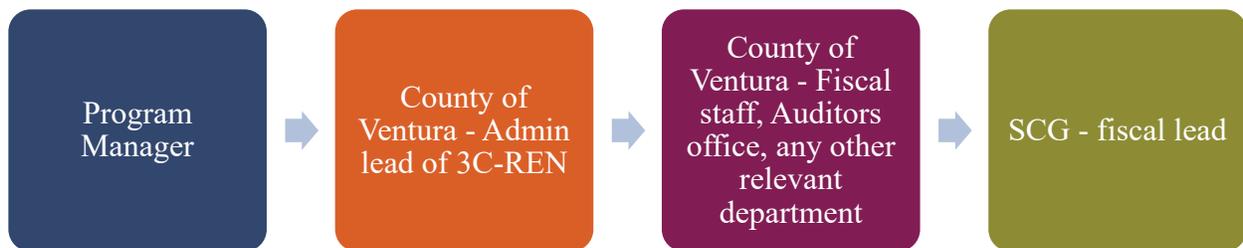
6 This approach also allows 3C-REN to be nimble in responding to unforeseen circumstances  
7 that may affect program uptake or partner performance. In one example, 3C-REN's Single Family  
8 Direct Install Program launched concurrent with the onset of the COVID-19 pandemic and was  
9 met with extreme hardship due to the lockdown and economic impacts that further devastated the  
10 hard-to-reach residential population the program was intended to serve. However, as described  
11 earlier in this chapter, the program was able to pivot to providing all virtual services along with  
12 self-install kits to deliver immediate savings to customers while building a list of projects for future  
13 engagement.

#### 14 **E. Contract Management**

15 The County of Ventura is the lead agency in the administration of 3C-REN programs. The  
16 Counties of Ventura, Santa Barbara and San Luis Obispo have a Memorandum of Understanding  
17 that received the approval of all the Counties and their Board of Supervisors. 3C-REN has utilized  
18 existing resources within the county government structures to assist with overall management of  
19 contracts thereby allowing 3C-REN to be streamlined. Examples of applied resources include  
20 Ventura Procurement services, legal support from County Counsel, and fiscal oversight from the  
21 Auditor Controller, Budget and Finance among others. In addition, 3C-REN also applies the  
22 expertise of Santa Barbara and San Luis Obispo counties and their knowledgeable staff who have  
23 extensive experience planning and implementing energy programs and working with utilities and  
24 other relevant stakeholders.

1           Once the vetting and selection process has been completed then every contract goes  
2 through an onboarding process to meet procurement guidelines and 3C-REN invoicing and  
3 reporting protocols, branding guides and any other relevant procedures. Every contract has a staff  
4 lead who meets with the consultant regularly to make sure contract requirements are being met.  
5 Scopes of work often consist of deliverables or time and material work that needs to be documented  
6 and reported on. The regular monitoring of 3C-REN metrics also plays a role in managing contracts  
7 and properly administering the use of funds.

8           3C-REN has a dedicated staff member and utilizes a database for highly detailed tracking  
9 of time and costs associated with each contract, allowing real-time visibility into program and  
10 implementer performance Every monthly invoice has several levels of review to make sure all  
11 work being done is within scope.



12  
13 **Figure 11: 3C-REN Invoice Review Process**

14  
15           3C-REN follows all guidance and polices set forth by the Auditor-Controller who serves  
16 as Fiscal Accounting Advisor to the Board of Supervisors, monitors and controls financial status  
17 of all funds, and maintains fiduciary appropriation and budgetary controls. 3C-REN adheres to  
18 standards set forth by the Financial Reporting, General Accounting, and the Internal Audit  
19 Division. In addition, 3C-REN follows Energy Efficiency Policy Manual, CPUC regulatory  
20 reporting procedures and monthly invoicing and reporting with detailed review by SoCal Gas.

1           **VI. PORTFOLIO COORDINATION**

2           **A.       Coordination with Other Program Administrators**

3           3C-REN has established approaches for coordination with other program administrators,  
4 as described in its Joint Cooperation Memos, for some portions of 3C-REN programs that may  
5 allow for and require coordination among programs. These approaches are detailed in the section  
6 below entitled Mitigation of Duplication. 3C-REN provides referrals to complementary programs  
7 to program participants when appropriate, in order to support the best possible outcomes for  
8 program participants, residents, property owners, businesses, and jurisdictions in the Tri-County  
9 Region. 3C-REN will also continue to participate in Energy Division-led Peer Coordination  
10 Groups (PCGs). The PCGs enable collaborative discussions across all PAs throughout the state.  
11 For new offerings, 3C-REN will coordinate with other PAs as new and launching programs are  
12 contracted and designed in order to operationalize coordination, with an understanding that new  
13 market support and equity programs might also provide similar services.

14           **B.       3C-REN’s Portfolio is Complementary with the Portfolio of Other**  
15           **Program Administrators**

16           In D.21-05-031 the Commission adopted the segmentation of program portfolios into  
17 resource acquisition, equity, market support, and codes and standards; the Commission also  
18 asserted that non-REN program administrators are limited to allocating 30% of their overall  
19 portfolio budget to equity and market support programs. RENs, however, are exempted from this  
20 requirement, and CPUC went on to explain that “RENs, by their nature and primary purposes, are  
21 more likely to have a greater share of their portfolio devoted to market support and/or equity  
22 programs.”<sup>123</sup> In developing its portfolio for 2024-2027, 3C-REN has carefully considered this

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<sup>123</sup> D.21-05-031, p. 23.

1 direction, the likely proposed portfolios of other program administrators, and guidance provided  
2 in discussions with Energy Division staff.

3           Based on these considerations, 3C-REN has dedicated its proposed budget to programs in  
4 the equity, market support, and codes and standards segments, rather than resource acquisition.  
5 This approach was vetted with and supported by Energy Division Staff, who indicated that 3C-  
6 REN had correctly interpreted the Commission’s intentions for REN program administrators in  
7 adhering to the portfolio segmentation requirements in D.21-05-031. 3C-REN’s proposed  
8 programs are designed to be complementary to resource programs offered by other PAs, and to  
9 work in close coordination with other market support, equity, and codes and standards programs  
10 to maximize resources across the region.

11           In keeping with this approach, in this application 3C-REN proposes just one new program  
12 for 2024-2027 that will involve incentives to customers—a Commercial Marketplace offering that  
13 will focus on small and medium-sized businesses, an underserved market segment that aligns with  
14 3C-REN’s mandate as a REN to serve hard-to-reach customers. 3C-REN also proposes to continue  
15 its existing offerings for single family and multifamily residential customers, with a similar focus  
16 on hard-to-reach customers.

17           Establishing clear and measurable value for energy efficiency work in the commercial,  
18 (particular for small and HTR businesses) and residential sector is paramount for meeting the  
19 state’s goal of doubling energy efficiency in existing buildings by 2030 as outlined in SB 350. For  
20 both electricity and natural gas efficiency targets, most savings are expected to come from the  
21 residential and commercial sectors.<sup>124</sup> The 2019 California Energy Efficiency Action Plan clearly

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<sup>124</sup> 2019 California Energy Efficiency Action Plan, p.66-67.

1 indicated that increased participation and new market activity are needed to propel the state toward  
2 its ambitious goals for energy efficiency, saying that “[r]edesigning and introducing new programs  
3 into the market may contribute the savings needed to reach the 2030 goal” for doubling energy  
4 efficiency savings in the state.<sup>125</sup> By offering rebates for energy efficiency in these equity  
5 programs, 3C-REN programs will support the state’s goals for savings needed from these sectors,  
6 while aligning with Environmental and Social Justice Action Plan (ESJ Plan) Goal 2. “Increase  
7 investment in clean energy resources to benefit ESJ communities, especially to improve local air  
8 quality and public health.”<sup>126</sup>

9           3C-REN’s four other proposed programs are non-resource in nature and include two  
10 existing programs that already have well-established coordination with other PA programs and  
11 statewide offerings: the Building Performance Training WE&T program and the Energy Code  
12 Connect C&S program. In addition to these existing programs, 3C-REN proposes two new  
13 programs: an Agriculture Technical Assistance program and an Energy Assurance Services cross-  
14 cutting program serving commercial and public sector customers. These new proposed programs  
15 are directly informed by stakeholder feedback that indicated a need for focused and locally-  
16 delivered technical assistance.

17           In listening sessions to inform this application, 3C-REN asked agriculture sector  
18 stakeholders what ideas 3C-REN should explore for new or expanded energy efficiency programs.

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<sup>125</sup> Ibid, p. 5.

<sup>126</sup> Environmental & Social Justice Action Plan, Version 2.0, California Public Utilities Commission, dated October 26, 2021, at 1. Available at <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/draft-cpuc-esj-2010262021c.pdf>.

1 One of the common threads expressed by stakeholder was that they need a “map” and that it would  
2 be very beneficial to have support in navigating the various programs and funding sources for  
3 agricultural energy efficiency. Stakeholders indicated that trying to differentiate between various  
4 providers and options is “overwhelming” and they need help in assessing their options and making  
5 decisions about project opportunities and equipment purchases.<sup>127</sup>

6 Similarly, feedback from stakeholders indicated that public sector staff and commercial  
7 sector business owners also have very limited bandwidth to take on the complexities of energy  
8 efficiency program participation, even though many have significant interest in and need for  
9 upgrades at their facilities. These customers mentioned needing local support for energy audits,  
10 data analysis to understand project opportunities for their facilities, as well as guidance in  
11 navigating the process of finding and applying for the appropriate program.<sup>128</sup>

12 The personalized hand-holding and technical assistance needed by these customers is  
13 difficult to provide on a cost-effective basis, and therefore is well-suited for 3C-REN, given the  
14 unique role of RENs compared to other PAs in the overall statewide portfolio. Based on feedback  
15 from the region’s stakeholders, 3C-REN proposes two new programs in the market support  
16 segment which will directly complement the portfolios of other PAs in the region by providing  
17 technical assistance to identify potential energy efficiency and decarbonization projects and then  
18 actively guiding potential participants to other PAs’ program offerings to pursue incentives for  
19 project implementation.

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<sup>127</sup> 3C-REN Business Plan Listening Session: Agricultural Sector. July 2021.

<sup>128</sup> 3C-REN Business Plan Listening Sessions: Public Sector, July 2021, and stakeholder meetings with Green Business Program representatives.

1                   **C.       Mitigation of Duplication**

2                   In developing the suite of programs proposed in this Application, 3C-REN has extensively  
3 coordinated with their IOU and Community Choice Aggregator (CCA) peers, in particular to avoid  
4 programmatic overlap. As set forth in D.18-05-041, “RENs’ activities may only overlap with  
5 utility PAs’ activities when those activities are targeted at hard-to-reach customers.”<sup>28</sup> The  
6 Decision continues: “To the extent that REN activities may overlap with utility programs, it is  
7 reasonable with respect to prudent investment of limited ratepayer funds to limit such overlap to  
8 programs that target customers with the least likelihood of program information and access.”<sup>29</sup> In  
9 particular, the Commission has required each PA to develop a joint cooperation memo:

10                   Specifically, we will require the PAs (RENs, IOUs and CCA) to develop a joint  
11 cooperation memo to demonstrate how they will avoid or minimize duplication for  
12 programs that address a common sector (e.g., residential or commercial) but pursue  
13 different activities, pilots that are intended to test new or different delivery models  
14 for scalability, and/or programs that otherwise exhibit a high likelihood of overlap  
15 or duplication and are not targeted at hard-to-reach customers. For such programs,  
16 each PA must explicitly identify and discuss how its activities are complementary  
17 and not duplicative of other PAs’ planned activities.<sup>30</sup>

18                   D.18-05-041 required joint cooperation memos between IOUs and RENs to include:

19                   RENs must include a summary of the programs they intend to run; if **the IOU(s)**  
20 **who shares territory with a REN offers a similar program**, the IOU(s) must also  
21 provide the same summary of their program. The summary for each PA’s program  
22 must include eligible measures, budgets, and target audiences. The RENs and IOUs  
23 must describe how they will offer their corresponding portfolios and avoid  
24 duplication.

25                   RENs must also include a discussion section for each program, summarizing how  
26 the program meets at least one of the criteria outlined in D.12-11-015, i.e., aimed  
27 at hard-to-reach customers (which can overlap with an IOU offering); programs  
28 that IOUs do not offer; and pilots not offered by IOUs but with the possibility of  
29 scaling.<sup>31</sup>

30                   Following the approval of 3C-REN’s first business plan, it submitted its first JCM on  
31 August 1, 2018 for the 2019 program year with SoCalGas, PG&E, and SCE—the utilities with  
32 which 3C-REN shares territory. Each year since 2018, 3C-REN has engaged in a collaborative

1 process with those three IOUs to compile and review JCM language, including conducting  
2 meetings and working sessions to identify potential areas of overlap and establish protocols for  
3 coordination. In alignment with D.18-05-041, 3C-REN’s JCM each year includes a summary of  
4 programs and eligible measures, budgets, and target offerings, as well as a discussion of how 3C-  
5 REN’s program offerings meet the criteria of D.12-11-015.

6 The JCM also addresses how 3C-REN and the IOUs will coordinate to reduce market  
7 confusion and avoid duplication of effort. As described in its most recent JCM for program year  
8 2022, the IOUs and 3C-REN approach coordination with the goal of offering transparency through  
9 regular communication, efficiency through a collaborative approach to any shared resources, and  
10 support for the success of programs across the service area. Coordination practices and processes  
11 that have been established between 3C-REN and the IOUs include and are not necessarily limited  
12 to the following examples:<sup>129</sup>

- 13 • Communication via email or in regular coordination meetings, and a clear chain  
14 of communication and identified contacts are exchanged for each program.
- 15 • Development and use of a protocol to verify customer eligibility prevent “double  
16 dipping.”
- 17 • IOUs make 3C-REN aware of programs, services, and resources. 3C-REN and  
18 the IOUs also share information about their scheduled trainings, and 3C-REN  
19 leverages existing IOU curriculum and training wherever feasible, through  
20 communication and regular coordination with IOU partners.

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<sup>129</sup> 3C-REN, SoCalGas, SCE, and PG&E 2022 Joint Cooperation Memorandum

- 1 • 3C-REN and the IOUs have established a protocol for customer handoff should  
2 either program identify a referral opportunity for another organization’s  
3 resources. The handoff protocol minimizes the number of customer touchpoints  
4 to maximize the potential for program participation and ensure that the customer  
5 experiences a seamless service offering between 3C-REN and the IOUs.

6 The JCM also addresses coordination with statewide programs, with similar coordination  
7 protocols and practices where appropriate.

8 3C-REN has established an efficient and effective working relationship with the IOUs in  
9 its territory over the past four years and is currently in progress with its 2023 JCM. 3C-REN will  
10 continue building on these established coordination practices in the years to come and will expand  
11 its coordination to include new programs and sectors for the 2024-2027 portfolio.

12 3C-REN had coordinating and strategy meetings with IOU’s PG&E, SCE and SCG and  
13 with REN’s regarding 2024 portfolios to identify potential areas for coordination and ideal delivery  
14 of complementary programs. During the meeting with the IOU’s the residential sector warranted  
15 for additional coordination meetings; no immediate overlap was identified but all PA agreed to  
16 continue to meet and identify approaches and tools to help participants participate in the program  
17 that meets their need.

#### 18 **D. Coordination with Other Demand-Side Programs**

19 The MSMWG Final Report offers recent and relevant guidance on coordination between  
20 market transformation initiatives and energy efficiency market support segment programs, saying  
21 that “The California energy efficiency (EE) market will benefit most from a collaborative approach  
22 between the Market Transformation Administrator (MTA) and EE Rolling Portfolio Program  
23 Administrators.”

1 In alignment with recommendations from the MSMWG Final Report 3C-REN proposes to  
2 continue engaging in “ongoing and significant collaboration” with other demand-side program  
3 administrators and stakeholders. This includes coordination plans with building decarbonization  
4 programs and market transformation initiatives. For example, 3C-REN is engaging with  
5 administrators and stakeholders for the TECH Clean California market transformation initiative to  
6 identify synergies and opportunities for 3C-REN customers and program participants to benefit  
7 from TECH.<sup>130</sup>

8 For Codes & Standards, 3C-REN has collaborated with BayREN and the Statewide C&S  
9 team/Energy Code Ace, as well as with CEC, CalCerts, and CABEC to leverage existing trainings  
10 and resources and avoid duplications across program offerings.

11 3C-REN will ensure that its programs do not operate in silos and that activities in new and  
12 existing programs are well coordinated with other demand-side programs.

13 **E. Stakeholder Engagement in the Development of this Application**

14 In accordance with Conclusion of Law 36 in D.21-05-031,<sup>131</sup> 3C-REN conducted  
15 meaningful stakeholder engagement before and during the preparation of its 2024-2027 Portfolio  
16 Plan and will continue to do so during program implementation. Stakeholder engagement will  
17 remain an integral part of 3C-REN’s regular reporting and monitoring activities.

18 Since 3C-REN’s first business plan filing,<sup>132</sup> 3C-REN has actively engaged with  
19 stakeholders across the Tri-County Region. 3C-REN staff connected with the local stakeholder

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<sup>130</sup> MSMWG Final Report, p.21

<sup>131</sup> D.21-05-031, p. 79

<sup>132</sup> 3C-REN Energy Efficiency Business Plan 2018-2025

1 network to understand their priorities and challenges during the initial half of 2019. This group  
2 consisted of building and safety departments from all 28 jurisdictions across the Tri-County  
3 Region, the private sector building industry, California Energy Commission and the three IOUs of  
4 the region.<sup>133</sup> Additionally, 3C-REN created a Market Needs Assessment report designed to  
5 inform 3C-REN program development for both BPT and ECC. These programs are distinct, but  
6 both are designed for building professionals, including private-sector commercial and residential  
7 building professionals, public-sector local government staff, and other building industry  
8 stakeholders that impact energy efficiency measure uptake. The report captured local feedback  
9 from these targeted stakeholders and aided in the development of each program’s scope.<sup>134</sup>  
10 Furthermore, in the fall of 2020, 3C-REN engaged local, regional, and other relevant entities that  
11 serve disadvantaged contractors and workers. The goal of this outreach was to identify the target  
12 audience and pinpoint training needs to build an inclusive workforce that will bring energy  
13 efficiency and resilience to the Tri-County Region. This outreach consisted of identifying and  
14 interviewing key stakeholders who understand the gaps between underserved and more resourced  
15 workers, and the skills and knowledge needed to be competitive.<sup>135</sup> In addition to these targeted  
16 stakeholder engagement efforts, on an ongoing basis 3C-REN solicits stakeholder feedback from  
17 training and forum event attendees to inform its continuous improvement process, to gather input  
18 for future trainings and events, and to collect data points for tracking metrics and indicators.

19 In preparation for its 2024-2031 Application, 3C-REN strongly encouraged and requested  
20 feedback from stakeholders through a survey and listening sessions. On behalf of 3C-REN,

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<sup>133</sup> 3C-REN Exhibit 01: Strategic Business Plan 2024-2031

<sup>134</sup> Ibid.

<sup>135</sup> 3C-REN Exhibit 01: Strategic Business Plan 2024-2031

1 BluePoint Planning developed an Online Stakeholder Survey (3C-REN Business Plan Survey) and  
2 facilitated a series of small one hour group conversations (3C-REN Business Plan Listening  
3 Sessions). The survey focused on engaging with a larger audience who helped guide the  
4 development of the 3C-REN portfolio by providing their input on 3C-REN program creation and  
5 funding allocation, and sharing their organization’s needs and ideas for new programs. Divided  
6 into nine individual meetings, the listening sessions were a well-received opportunity to share  
7 information about 3C-REN and to learn more about Tri-County stakeholder interests and ideas for  
8 the new business plan. The Listening Sessions allowed the team to engage stakeholders in small  
9 and intimate settings, helping to build longer-term relationships. The groups for the listening  
10 sessions included the twenty-five cities within the three counties (City Managers, Sustainability  
11 Directors, etc.), community-based organizations, and regional agencies.

12 3C-REN also held commercial sector meetings with Green Business Programs in the Tri-  
13 County Region prior to and during the development of its commercial sector approach for this  
14 application. These meetings were attended by the Green Business Programs of San Luis Obispo,  
15 Santa Barbara, and Ventura counties. Through this, 3C-REN was made aware of the GB program  
16 needs specific to the region, such as the need for localized technical assistance, improved direct  
17 install program coordination, and established training. 3C-REN proposes to collaborate with the  
18 GBN partners in the region for its commercial sector offering, in response to the needs expressed  
19 by the GBN partners for expanding their services to include more comprehensive audits, rebates,  
20 and marketing to support staff time for outreach and partnership development.

21 The table below presents a summary of stakeholder input gathered at 3C-REN’s Business  
22 Plan Listening Sessions to inform its EE Application, along with how 3C-REN has incorporated  
23 input into this EE Application and future planning.



1 **Table 48: 3C-REN Business Plan Listening Sessions: Stakeholder Input and 3C-REN**  
 2 **Response**

Item #	Sector	Stakeholder Input	3C-REN Response
1	Agricultural	<p>Need for more technical assistance. For example, develop a tool which helps navigate different efforts; perhaps a map showing what is offered and by who (the difference between various providers is overwhelming). Provide design services for greenhouses and other systems.</p> <p>Want EE opportunities for ag office buildings, farm worker housing, greenhouses, food processing (any opportunities for refrigerants program?) and bottling facilities. Wineries and bottling facilities in particular need assistance in reducing energy use. In addition, ag-specific training would be valuable.</p>	<p>3C-REN proposes a technical assistance program for agriculture customers that can be flexible in accommodating different types of agricultural customers to address their specific EE needs. See the agricultural sector and Agriculture Technical Assistance program card for details.</p>
2	Agricultural	<p>Need for incentives/rebates. For example, need to reduce energy use in ag office buildings; dehumidifiers for heated greenhouses (older facilities especially need more efficiency); rebates for food processors and coolers; solar integration</p>	<p>3C-REN’s proposed Agriculture Technical Assistance program will work with customers to assess their EE needs and guide them to rebates offered by other PAs in the region.</p>
3	Agricultural	<p>An agriculture program offering connecting to solar, batteries and regulations would be useful.</p> <p>Farms need 100% uptime. Locations such as Carpenteria have to turn things off in order to manage processes. Thinking about getting more energy in Carpenteria, which poses an entirely separate issue and concern. Carpenteria needs to do many more upgrades. How can this effort help with power shutoffs?</p>	<p>In Exhibit 01 of this application, 3C-REN has offered policy recommendations highlighting the need for flexibility to support customers in pursuing comprehensive and holistic solutions that include DERs and other resiliency solutions. 3C-REN’s proposed Agriculture Technical Assistance program could help customers assess their energy and resiliency needs from this comprehensive perspective.</p>
4	Agricultural	<p>The cannabis industry needs help to comply with State energy mandates. This area needs to reduce energy use by 15%.</p>	<p>3C-REN’s proposed Agriculture Technical Assistance program includes a tactic specifically directed to assisting region’s cannabis growers in complying with energy mandates.</p>
5	Agricultural	<p>Use solar power for farms and greenhouses.</p>	<p>3C-REN implements energy efficiency programs but is not able to offer renewable energy programs. However, 3C-REN has proposed policy recommendations and</p>

			technical assistance to help address these customers' needs. See item #3 above.
6	Agricultural	<p>Pumping of water is the biggest energy use – something to help here would be useful. Buildings are not as big, and lighting changes would be great but not a big issue. It was suggested to add a number of independent irrigation technology tools at different times.</p> <p>The establishment of a Water/Energy Nexus program would help reduce water use for irrigation and be a big energy source.</p> <p>Irrigation technology such as Variable Frequency Drive (VFD) pumps (similar to a water dimmer switch to limit the amount of water being used) control water use. Ideally, adding VFD pumps should happen with the digging of the well, but they are often an add-on to the pumping systems. VFD pumps will allow pumping water from deep wells to reduce the flow and help stop waste.</p> <p>Soil and plant sensors to adjust water use, weather information and other tools to help to provide management and information about when and how to water to maximize use. This will be a heavy expense but will help reduce costs.</p> <p>Switch out less efficient/older micro sprinklers, drip tape, and irrigation with pressure compensators, and other energy efficient tools that are needed on the distribution systems. It would be helpful to do this sooner than later. These tools reduce water use and therefore energy use.</p>	<p>In addition to identifying energy efficiency opportunities, 3C-REN's proposed Agriculture Technical Assistance program will prioritize supporting ag customers to address the water-energy nexus by also identifying opportunities for more efficient irrigation methods and water pumping technologies and guide those customers to appropriate rebates offered by other PAs in the region.</p>
7	Public Sector	<p>Strong technical assistance is important for public sector (as well as homeowners, and small businesses that public sector support). Cities want to know how they can get the most bang for their buck, so there's a need for assessments and strategy to drive investments. Provide energy assessments to non-profits to help them save and be models for other efforts. CommUnify doesn't do energy modeling to really understand the specific measures to get good results; they're not data driven. Can 3C-REN help to do assessment and provide the most effective measures, not done statewide?</p> <p>Moreover, local government organizations need help with electrifying their existing buildings in order to reach their goal of zero net energy buildings. It would be helpful to have a dedicated facilities person for cities to promote efficiency.</p>	<p>3C-REN proposes to address the needs of public sector customers in the region with its cross-cutting Energy Assurance Services (EAS) program, with services informed by stakeholders' communicated needs. The EAS program will offer energy audits and resiliency consultation, direct customers to existing energy efficiency programs and support their enrollment as applicable.</p>

		Central Coast LEAP (CC-LEAP) has been good, but the program has spent a lot of time on distributed energy resources (DER) and not a lot of time to scope EE. Would be great to have someone help from the beginning, and then get into project approval. CC-LEAP did facility benchmarking and helped to identify where to focus. Having a good consultant is critical, so replacing this program if it goes away would be important, as the auditors were very good and helpful.	
8	Public Sector	Looking for more engagement and integration with the HTR communities. Local government is working with Rising Sun to help increase ability to reach disadvantaged communities. While the hard-to-reach definition is being expanded, local government wants to make sure they are not scaring people off as a government agency, so they want to put 3C-REN out front. These agencies are looking to partner with a lot of organizations in the county who have a greater reach into these communities of interest, especially Spanish speaking communities. One local government is even starting a SL Radio show with a 12-part series. Local agencies are working on increasing translation, and assistance on how to amplify that engagement would be great.	3C-REN's role as convener is an important part of its market support segment strategy relating to partnership-building, as described in the market support segment section as well as the section on 3C-REN's cross-cutting sector approach to commercial and public facilities. Moreover, addressing language barriers is part of 3C-REN's commitment to serving HTR customers as described in the equity segment section.
9	Public Sector	The Central Coast region is receiving an increase in more heating events. Residents are going to push for more AC and home weatherization so that they can be safe and comfortable in the increasing heat. This is especially a challenge for renters as the number of tenants makes this difficult. Seems like there are limited options.	Through the EAS program some customers, such as under-resourced public agencies, will also be supported with processes related to pursuing upgrades specific to public agency needs. In addition, 3C-REN can be a conduit for public sector agencies in guiding them constituents into 3C-REN's residential offerings for single family and multifamily customers.
10	Public Sector	Opportunity for special districts programs (e.g., sanitation & water districts) under the water/energy nexus, even though not specifically under the city. Communications could be expanded, and technical assistance and assessment would likely be useful.	Based on this stakeholder feedback and 3C-REN's knowledge of the region's needs, 3C-REN has included tactics specifically targeted to supporting special districts and building partnerships to support water-energy nexus projects.
11	Public Sector	Expand Building Performance Institute (BPI) trainings. Mobile/local trainings would provide greater accessibility and participation.  BPI training is becoming the model for low-income programs. There is an opportunity to expand and do this. PG&E is the only provider up in Stockton, which is very far away and the only one available. A different model in the	This stakeholder input will be considered by 3C-REN as part of its cross-cutting workforce education and training program, and also speaks to the importance of 3C-REN as a convener for partnership-building across sectors and programs.

		<p>Tri County region would be great, specifically for low income. This could get more contractors to be involved as they could get compensated via the ESA/LIWP programs.</p> <p>Looking to bring BPI to the area and offer more hands-on opportunities to provide this training, and developing and opening training centers here. Considering the feasibility of the effort. Hard to host separately. Connecting with local community colleges? Working on this with multiple colleges.</p>	
12	Public Sector	<p>Opportunities to stack and leverage various incentives and programs with 3C, especially if jurisdiction is part of the 3CE CCA. Leveraging on the installation side – what measures are offered and what are the new updates to activities?</p>	<p>This feedback informed 3C-REN’s approach to the EAS program and its inclusion of a tactic focused around offering packaged and layered solutions to meet commercial and public sector customers’ specific needs. This tactic aligns with 3C-REN’s overall strategic framework and the strategy of connecting customers with 3C-REN programs as well as CCAs’ and other PAs’ offerings to deliver holistic, equitable solutions for energy and resiliency.</p>
13	Residential	<p>Support renters in upgrading to efficient appliances (particularly related to AC), incentives for renters and landlords, getting rid of gas appliances and electrification. Hard to work with a landlord to do this, and residents need had holding – so what can be done to help? Can tenants get any incentives as well as the property? The new MF program requires a certain percentage of the project has to benefit the tenants. Would like to see some new measures that can be easily installed by tenants without the landlord.</p>	<p>3C-REN will continue working to address the split incentive barrier seen in residential energy efficiency programs with program designs that drive program benefits toward both property owners and renters.</p>
14	Residential	<p>Direct install programs to upgrade to efficient, electric water heating, HVAC, &amp; provide insulation.</p>	<p>3C-REN’s residential programs support upgrades to efficient electric technologies. 3C-REN will consider the feedback regarding a direct install program model as its residential programs continue to evolve.</p>
15	Residential	<p>Integrate water and site improvements to residential programs. Energy impacts are beyond the building, especially for new buildings and even existing buildings. When you change out landscaping, look at how to reduce water/energy use.</p>	<p>3C-REN has developed its residential programs to be flexible in meeting single family and multifamily residential needs for energy efficiency upgrades, and this includes the ability to address the water-energy nexus. The Single Family Home Energy Savings program will use an NMEC approach to encourage innovative and flexible project solutions. The Multifamily Home Energy Savings (MHES) program incorporates technical assistance to guide property</p>

			owners in looking holistically at energy upgrade opportunities at their properties. Both programs can also offer referrals to other water-focused programs and opportunities in the region as appropriate.
16	Residential	<p>Work with housing authorities on upgrades and technical assistance for renovations/designing new projects.</p> <p>2 Housing authorities in SB County; one for the city and the another for the rest of the county. 1,400 housing units alone. Could be a good place to roll out a program. Do a rehab of 112 in Santa Maria. This is easier in new buildings. In rehab, EE is an important goal. Work with the project managers to see this happen.</p>	3C-REN is actively working with housing authorities through its MHES program and will continue to do so. 3C-REN's connections and existing relationships with local government agencies is an important part of its equity segment and market support segment offerings.
17	Residential	<p>Work with landlords/property owners of mobile home parks to install solar. One of the Buellton mobile home parks is interested in setting up solar for each unit but isn't sure how.</p>	3C-REN implements energy efficiency programs but is not able to offer renewable energy programs. However, 3C-REN has proposed policy recommendations that could help provide the flexibility needed to address these customers' needs.
18	Residential	<p>More neighborhood projects. Block parties could help scale EE programs. Could work with places of worship, activist groups, property owner's association, and property owner associations – connect to them and their regular meetings.</p>	This feedback informed 3C-REN's inclusion of a tactic specifically targeted to identifying groups of rural neighborhood cohorts interested in making EE upgrades and facilitate connections with contractors who can conduct neighborhood sweeps. 3C-REN has also incorporated a specific tactic regarding partnership-building--- its tactic to expand 3C-REN's network of CBOs, PAs, and other relevant groups to foster exchange of information and cross promotion of other agency programs.
19	Residential	<p>Work with Potential Partners to share out information about the program such as:</p> <ul style="list-style-type: none"> <li>• CAI Community Association Institute – Condo groups – lunch and learns</li> <li>• Builders Industry Association- market rate developers can distribute info to members</li> <li>• Tenants Union</li> <li>• Contractors' Association (Ventura, SB, Santa Maria Valley, SLO)</li> <li>• American Institute of Architects (AIA)</li> </ul>	Partnership-building is a key aspect of 3C-REN's approach as informed by this and other stakeholder input. See also: item #18 above.

		<ul style="list-style-type: none"> <li>• Central Coast Green Building Council (CCGBC) <ul style="list-style-type: none"> <li>○ CCGBC is always looking for ways to partner + Architects – they would like to be part of the early planning perhaps.</li> </ul> </li> <li>• Builders Industry Association (BIA) they work with affordable housing and market rate housing – share with them to get it out to their members.</li> <li>• Tenant’s unions (Ventura and Santa Barbara Counties) are getting started and building a following <ul style="list-style-type: none"> <li>○ SBTU.org (Santa Barbara)</li> <li>○ Tenants and volunteer lawyers</li> </ul> </li> <li>• Ventura County Contractors Association; Santa Maria Valley, SLO, Santa Barbara Associations – share details in newsletters + AIA, CCGBC</li> </ul> <p>The impact from getting info out to these members can be substantial – but you need a lot of people. To get more impact for residential areas:</p> <ul style="list-style-type: none"> <li>• Block parties for EE (like Coolblocks program) Neighborhood approach</li> <li>• DIY kits are great marketing to support and encourage bigger projects – should expand</li> </ul>	
20	Residential	<p>Many small contractors and are not available for trainings. This is a challenge to figure out how to get them in the mix and benefit them to participate. It is a hard group to reach and to bring into the conversation. Sometimes it takes mandates. Need to continue to think about what works for them, like recording trainings for accessing later.</p>	<p>3C-REN has included a specific goal, objectives, and strategies focused around how its residential sector activities will increase local workforce opportunities. For example, the residential sector strategy section includes the following tactics: Collaborate with BPT and outside workforce organizations (e.g. Workforce Development Boards) to inform training opportunities (soft skills, etc.) based on lessons learned in RES program implementation; and target BPT participants to apply to participate in RES programs.</p>
21	Commercial	<p>There were no participants for the commercial sector. Greater outreach and relationships are needed to reach this group. There is a sense that there is a market opportunity for commercial program, especially for small/medium commercial – from other session. Direct install programs could work but need to be designed to address timing and capacity of small business owners.</p>	<p>3C-REN engaged directly with Green Business Network stakeholders in the Tri-County Region to gain greater insights into the needs of HTR commercial customers. These insights directly informed the development of 3C-REN’s proposed Commercial Marketplace program.</p>

22	Workforce & Education	<p>Important to overcome negative perceptions of construction industry. Position construction as an industry that can help solve climate goals. Explain careers for different vocations and emphasize career evolution. Some people don't recognize what a green job can be or where they can be found; they don't get that it is a construction job. Discuss lifelong learning and that the careers will evolve. For example, they may start as an installer and then become a business owner, but not right out of school. There is a future for facility managers. Teach them to attend professional development.</p>	<p>"High road" career pathways are an important part of 3C-REN's WE&amp;T offerings, and this feedback will be considered for informing future training offerings. To sustain and expand career pathways, 3C-REN must establish a strong underlying structure. This means a shared vision and stable regional career pathway system with solid partnerships and common understanding of objectives to make this approach feasible and effective.</p>
23	Workforce & Education	<p>Complementary to what is going on at K-12 and community colleges, could have "train the trainers" program for EE and electric technology for college and high school educators to help expand the message and opportunities.</p> <ul style="list-style-type: none"> <li>• Embed curriculum in programs</li> <li>• Multi-day training for community college and professors to learn more and be up to date on the best practices</li> <li>• Some negative perceptions around construction industry <ul style="list-style-type: none"> <li>○ Increase the awareness and advantages</li> </ul> </li> </ul>	<p>As described in its strategies for WE&amp;T, 3C-REN will partner with community colleges and high schools to engage students and build career awareness and opportunities for career exploration in the building professions. 3C-REN will work with schools and educators to ensure this training is consistent with local workforce needs and assets, while providing students with support services and career navigation assistance. This workforce development strategy will students an alternative route for getting into college, and provide them with an overview of skills that are greatly lacking in today's workforce.</p>
24	Workforce & Education	<p>Opportunity for summer camps/STEM camps to incorporate green construction info and prep kids for construction jobs</p> <ul style="list-style-type: none"> <li>• Awareness is both a big issue and opportunity <ul style="list-style-type: none"> <li>○ Summer camps that allow to teach people more about this industry. Partner with local government for the summer camp idea. Make sure to not duplicate and work together on the issue.</li> <li>○ Teach younger (pre-high school) students that this is something they can do</li> <li>○ Get them in the pipeline early if we want to change the culture</li> </ul> </li> </ul> <p>Entry programs in math are important – if we re-brand the green industry as STEM, there could be some potential. Develop a holistic and hands-on approach to demystify math and the system and open up their ideas into various industries.</p>	<p>See item #23 above.</p>

25	Workforce & Education	<p>Partner with Housing Authorities to disseminate and run programs.</p> <ul style="list-style-type: none"> <li>• Leverage funds! Housing Authority received additional funding because they are going all electric and found out about this through meetings – not everyone has this info, so providing more info and connecting directly with these authorities and BIA would be helpful.</li> <li>• Housing Authorities are good resources for connecting with underserved. <ul style="list-style-type: none"> <li>○ Lots of afterschool and support programs</li> <li>○ Career considerations are part of this discussion – with parents and kids</li> </ul> </li> </ul> <p>Would be helpful to match City Housing Authority scholarship funds for building trades.</p> <ul style="list-style-type: none"> <li>• City of Ventura has a scholarship program for those who are in Affordable Housing <ul style="list-style-type: none"> <li>○ Could this be expanded and enhanced?</li> <li>○ Provide more scholarships for those who want green jobs</li> </ul> </li> </ul> <p>Connect with Building Industry Association (BIA) to set up internships.</p> <p>An “Energy Corps” could train young people on building performance and energy audits.</p> <ul style="list-style-type: none"> <li>• Energy Corp concept is a real priority opportunity <ul style="list-style-type: none"> <li>○ Hits two objectives – career and energy savings</li> </ul> </li> <li>• Internship - Prop 39 Conservation Corp <ul style="list-style-type: none"> <li>○ Could partner with medium and small businesses and create an Energy Corp to do audits for sm/med commercial buildings – enable two things at once – build the commercial outreach and get real world experience</li> <li>○ Could also work in ag as well</li> </ul> </li> <li>• Energy Corp is great and their work with Americorp currently works with those who are homeless <ul style="list-style-type: none"> <li>○ Helpful for those kids who are going through college and high school</li> </ul> </li> </ul>	<p>3C-REN’s connections and existing relationships with local government agencies are an important part of its equity segment and market support segment offerings. 3C-REN is actively working with housing authorities for opportunities across its portfolio. The concept of internships is of interest to 3C-REN and will be considered as its WE&amp;T offerings evolve, and may also provide an important cross-cutting opportunity to support technical assistance in 3C-REN’s proposed programs for agricultural, commercial, and public sector customers.</p>
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Study Title/Topic Focus	Objective	Timeframe
Agriculture Sector Equity Challenges and Customer Barriers	Understand equity challenges and barriers for agricultural sector customers in the Tri-County Region	Mid-term

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2 **II. BUDGET ALLOCATION AND JUSTIFICATION**

3 3C-REN proposes a total EM&V budget of \$2,854,699 over the four portfolio plan years.  
 4 This forecast represents four percent of 3C-REN’s total portfolio budget of \$71,367,489 and is  
 5 consistent with Commission direction on the four percent allotment of each PA’s portfolio forecast  
 6 for EM&V.<sup>136</sup> In accordance with D.16-08-019<sup>137</sup>

7 3C-REN has allocated 27.5 percent of the total EM&V budget to pursue studies  
 8 summarized in Table 49: 3C-REN Proposed EM&V Summary. The remaining 72.5 percent is  
 9 reserved for Commission-lead EM&V.

10 **Table 50: EM&V Budget (\$) and Commission and 3C-REN Allocation by Year**

	2024	2025	2026	2027	Total
<b>3C-REN Portfolio Plan Budget</b>	16,575,462	17,355,493	18,181,331	19,255,203	<b>71,367,489</b>
<b>EM&amp;V Total</b>	663,018	694,220	727,253	770,208	<b>2,854,699</b>
<b>EM&amp;V Portion of 27.5%</b>	182,330	190,910	199,995	211,807	<b>785,042</b>
<b>Commission Portion of 72.5%</b>	480,688	503,310	527,259	558,401	<b>2,069,657</b>

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<sup>136</sup> D.16-08-019, p. 80.

<sup>137</sup> Ibid pp. 80-81

1                                   **CHAPTER 7.    COST & COST RECOVERY (N. BARBA)**

2                   3C-REN’s combined proposed Energy Efficiency (EE) budget request for Program Years  
3 (PY) 2024-2027 that supports 3C-REN’s program goals and budgets described in this application  
4 is presented in below. The three investor utilities serving 3C-REN’s territory will collect from  
5 customers the combined total budget requirement.

6  
7                   **I.    SUMMARY OF COSTS AT PORTFOLIO LEVEL**

8                   3C-REN summarizes the portfolio cost in Table 51.

9   **Table 51: Spending Budget Request by Program Year with Proposed Electric and Gas**  
10 **Allocation**

Program Year	Spending Budget Request	% Electric	% Gas
2024	16,575,462	80%	20%
2025	17,355,493	80%	20%
2026	18,181,331	80%	20%
2027	19,255,203	80%	20%
<b>Total</b>	<b>71,367,489</b>		

11  
12                   **II.   3C-REN’S APPROACH TO CLASSIFICATION OF UNSPENT FUNDS**

13                   3C-REN classifies unspent funds that are committed to be spent on a specific cost as  
14 committed. Funds that are unspent and uncommitted would be used to offset budget request in  
15 future program years.

16                   3C-REN submitted its 2022-2023 Energy Efficiency Biennial Budget Advice Letter in  
17 accordance with Decisions 18-05-041<sup>138</sup> and proposed offsetting budget request for 2022 by  
18 forecasted unspent/ uncommitted funds of prior years. 3C-REN does not anticipate uncommitted,  
19 unspent funds for 2022 that could be used to offset the budget request for 2023.

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<sup>138</sup> D.18-05-041, p. 134, Conclusions of Law 73.

- 1           Unspent and uncommitted funds that result from program years 2022 and 2023 will be
- 2   applied to offset budget request in future applications or filings, as appropriate.

# Appendix A - Program Cards

## I. TCR-AG-001 AGRICULTURE TECHNICAL ASSISTANCE

<b>Public-Facing Program Name:</b> Agriculture Technical Assistance	
<b>CEDARS Program Name:</b> Agriculture Technical Assistance	
<b>Program ID:</b> TCR-Ag-001	
<b>New / Existing:</b> New	
<b>Link to implementation plan if existing (see D.21-05-031):</b> <a href="https://cedars.sound-data.com/documents/download/2501/main/">https://cedars.sound-data.com/documents/download/2501/main/</a>	
<b>Portfolio Segment:</b> Market Support	<b>Implementation Party:</b> 3C-REN
<b>Applicable Sector:</b> Agricultural	<b>Market Sub-Sector:</b> N/A
<b>Sector Challenge:</b> Lack of information about EE measures and low program participation. Limited time and capacity to navigate complex program offerings. High up-front cost for efficient equipment to address energy-intensive and wasteful end uses for water-related processes. Local energy mandates for cannabis growers to reduce energy use by 15-100%. Farms need 100% uptime and are challenged by power shutoffs.	<b>Sector Opportunity:</b> Personalized, customized technical assistance can help identify energy upgrades and program options, as well as support customers through the project process. Specialized assistance can help recommend packages of measures to address water-energy nexus and indoor ag/cannabis growers' needs. Layering opportunity with complementary programs to provide resources regarding solar and storage additions to help with power shutoffs while supporting regional and state climate, resiliency, and sustainability goals.
<b>Known Equity Concerns in the Selected Markets:</b> Smaller producers and socially disadvantaged agricultural customers face challenges including lack of engagement with broader agricultural industry groups as well as lack of knowledge of available resources and programs.	<b>Proposed Solutions to Equity Concerns:</b> Technical assistance will help meet these customers where they are and give them personalized support to help them benefit equitably from available energy efficiency and advanced energy programs and opportunities. Partnering with trusted organizations will help ensure outreach and education is relevant and culturally-appropriate.
<b>Program Description:</b> The program will take a relationship-based approach that relies on partnership-building and personalized, customized technical assistance to help improve customer education and program participation among agricultural customers in the tri-county region. Technical assistance could include but not be limited to benchmarking, energy assessments, and referrals to complementary programs wherever possible and project management assistance to shepherd customers through the participation process. The program will provide specialized support for indoor agriculture/cannabis and water-energy nexus measures and focused outreach to smaller producers and socially disadvantaged agricultural customers.	

<b>Public-Facing Program Name:</b> Agriculture Technical Assistance	
<b>CEDARS Program Name:</b> Agriculture Technical Assistance	
<p><b>Intervention Strategy:</b></p> <ul style="list-style-type: none"> <li>• Technical assistance - personalized and customizable support to identify energy upgrades and complementary programs for rebates. Specialized support for indoor ag/cannabis and water-energy nexus measures.</li> <li>• Partnership-building – support a more robust understanding of stakeholder needs, reach customers about program offerings, and refine program offerings based on feedback from agricultural customers.</li> <li>• Outreach and education - emphasis on smaller producers and socially disadvantaged agricultural customers.</li> <li>•</li> </ul>	<p><b>Program Metrics:</b></p> <p>For a full list of program metrics please see Appendix B, Tabs 17 and 18.2.</p> <p>Select metrics include:</p> <ul style="list-style-type: none"> <li>• Percent of participation relative to eligible population for small, medium and large customers</li> </ul>
<p><b>High-level description of delivery workforce including necessary scale and its risks:</b></p> <p>For delivery the program will leverage existing staff relationships to deliver benchmarking services, utilizing the Resource Innovation Institute’s PowerScore Agricultural Benchmarking platform. The program will also rely on partners such as engineering/consulting firms, industry organizations, community organizations, education providers, and regional agencies. Partners tend to work in siloes which presents a risk; 3C-REN leadership will be important to ensure communication and collaboration across partners.</p>	
<p><b>Market Actors necessary for success:</b></p> <ul style="list-style-type: none"> <li>• Engineering/consulting firms</li> <li>• Agricultural industry organizations</li> <li>• Local and regional organizations serving socially disadvantaged and smaller agricultural customers</li> <li>• Educational providers</li> <li>• Resource Conservation Districts and other local/regional agencies</li> </ul>	
<p><b>Solicitation Strategy:</b></p> <p>Not applicable</p>	<p><b>Transition Plan:</b></p> <p>Not applicable</p>
<p><b>Expected Program Life:</b></p> <p>New/launching in 2024 then ongoing</p>	<p><b>Short Term Plan</b></p> <p>Launch program, build initial partnerships, and ramp up to deliver technical assistance to agricultural customers, including specialized support for indoor ag/cannabis and water-energy nexus measures.</p>
<p><b>Cost Effectiveness</b></p> <p>TRC: 0.00</p>	<p><b>Long Term Outlook</b></p>

<b>Public-Facing Program Name: Agriculture Technical Assistance</b>	
<b>CEDARS Program Name: Agriculture Technical Assistance</b>	
	Ensure program is supporting the market through increased awareness of agricultural energy efficiency and program opportunities; and expand program services as needed to ensure service to smaller producers and socially disadvantaged agricultural customers.
<b>Proposed Annual Budgets for 2024-2027:</b> 2024: \$714,806 2025: \$744,819 2026: \$772,707 2027: \$803,102	<b>Anticipated directional and scale changes in budget for years 2028-2031:</b> For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.
<b>Implementation Plan:</b> <a href="https://cedars.sound-data.com/documents/download/2501/main/">https://cedars.sound-data.com/documents/download/2501/main/</a>	

## II. TCR-COM-001 COMMERCIAL MARKETPLACE

<b>Public-Facing Program Name:</b> Commercial Marketplace <b>CEDARS Program Name:</b> Commercial Marketplace	
<b>Program ID:</b> TCR-Com-001 <b>New / Existing:</b> New <b>Link to implementation plan if existing (see D.21-05-031):</b> <a href="https://cedars.sound-data.com/programs/TCR-Com-001/details/2024">https://cedars.sound-data.com/programs/TCR-Com-001/details/2024</a>	
<b>Portfolio Segment:</b> Equity	<b>Implementation Party:</b> 3C-REN
<b>Applicable Sector:</b> Commercial	<b>Market Sub-Sector:</b> Not applicable
<b>Sector Challenge:</b> <ul style="list-style-type: none"> <li>Green Business Programs dedicated to serving small and medium businesses are under-resourced</li> <li>Small business owners/managers don't have time to navigate the project process</li> <li>Small businesses are under-resourced and do not have sufficient capital to pay for project costs</li> <li>Properties may need to phase their EE projects over time due to annual budget constraints</li> <li>Sector fragility due to COVID-19</li> <li>HTR commercial customers are underserved with energy-saving potential</li> </ul>	<b>Sector Opportunity:</b> <ul style="list-style-type: none"> <li>Increase local staff capacity to address timing and momentum of small business owners</li> <li>Rebates are important, per Green Business Network (GBN)</li> <li>Layer incentives with GBN</li> <li>Highlight businesses that participate</li> <li>GBN goals around serving BIPOC businesses</li> <li>Some landlords own multiple commercial properties</li> <li>Partner with community-based organizations (CBOs) to expand reach of program marketing</li> <li>Build relationship through technical assistance to continue implementing projects in the future when budget allows</li> <li>Increase EE awareness by working with property owners to explain the value of EE for their bottom line</li> </ul>
<b>Known Equity Concerns in the Selected Markets:</b> <ul style="list-style-type: none"> <li>Small businesses are underserved by EE</li> <li>Local and diverse small businesses may be under-resourced</li> <li>Impacts on community resiliency due to climate events</li> </ul>	<b>Proposed Solutions to Equity Concerns:</b> <ul style="list-style-type: none"> <li>Program eligibility based on business size</li> <li>Targeted outreach to local and diverse businesses, in partnership with local chambers and CBOs</li> </ul>

<b>Public-Facing Program Name:</b>	<b>Commercial Marketplace</b>
<b>CEDARS Program Name:</b>	<b>Commercial Marketplace</b>

**Program Description:**

Through two branches of the commercial program—Green Business Program (GBP) support and a new NMEC pathway—3C-REN will provide technical and financial assistance to local businesses for implementing energy saving measures, focusing on Hard-to-Reach customers. Customer participation can include being educated on local program offerings and benefits, implementing measures as part of Green Business certification, and/or making upgrades as part of a NMEC program offering incentives. These efforts will yield energy savings, enhanced customer service, community support and awareness of energy efficiency resources, and key partnership development with local organizations. Hard-to-Reach commercial customers will be targeted for participation as a priority for both 3C-REN and the GBPs. In addition, by taking a hybrid approach of utilizing an existing program alongside new financial offerings, the program will optimize resources, communications, and resulting participation potential.

<p><b>Intervention Strategy:</b></p> <ul style="list-style-type: none"> <li>• Technical assistance – support implementation of Green Business Program energy requirements with potential for added technical support for sites identified as strong NMEC candidates.</li> <li>• Financial Assistance – offer substantial incentives for NMEC projects implementing high performance measures in Hard-to-Reach markets.</li> <li>• Partnership-building – actively collaborate with local Green Business programs, their partners, and existing 3C-REN partners to reach customers about program offerings.</li> <li>• Outreach and education - implement a multimedia and multilingual approach to outreach, targeting Hard-to-Reach communities, to increase awareness of 3C-REN and partner program benefits.</li> <li>• Workforce Development – utilize local contractors, including 3C-REN WET program participants, to perform audits and possibly work associated with incentivized upgrades.</li> </ul>	<p><b>Program Metrics:</b></p> <p>For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.</p> <p>Select metrics include:</p> <ul style="list-style-type: none"> <li>• First year annual kW gross and net</li> <li>• First year annual kWh gross and net</li> <li>• First year annual Therm gross and net</li> <li>• CO2-equivalent of net annual kWh savings</li> </ul>
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**High-level description of delivery workforce including necessary scale and its risks:**

For delivery the program will primarily leverage existing partnerships with GBPs, community choice energy providers (CCEs), CBOs, and other organizations to deliver outreach and program services. Enhancing energy assessment capacity may require new partnerships/subcontracts with local firms; vetting and training this workforce will require an upfront cost that must be factored into budgeting. The NMEC

**Public-Facing Program Name:** Commercial Marketplace  
**CEDARS Program Name:** Commercial Marketplace

portion of the program will rely on contracting with implementers. Regional-level partnerships can prove fruitless due to resource constraints. By providing funding to align mutual goals and efforts with the GBPs, and outreach support for other organizations, this risk is reduced.

**Market Actors necessary for success:**

- Businesses, especially Hard-to-Reach
- Local Green Business Program staff
- Local partner organizations (utilities, CCEs, economic development, agencies, etc.)
- Local contractors
- Implementation firms

**Solicitation Strategy:**  
Not applicable

**Transition Plan:**  
Not applicable

**Expected Program Life:**  
New/launching in 2024 then ongoing

**Short Term Plan**  
Actively work with GBP, NMEC implementer, and key program partners to launch program; build other partnerships to enhance community reach; identify and strategize outreach toward Hard-to-Reach businesses; and ramp up to deliver a NMEC program with financial incentives.

**Cost Effectiveness**  
TRC:

- 2024: 0.66
- 2025: 0.69
- 2026: 0.74
- 2027: 0.79
- 2028: 0.71
- 2029: 0.75
- 2030: 0.78
- 2031: 0.81

**Long Term Outlook**  
Ensure program is supporting commercial customers and energy efficiency market actors through increased awareness of opportunities and resources, and through financial stimulation. Work with partners to adjust/expand program services as needed to ensure Hard-to-Reach business communities are being serviced.

**Proposed Annual Budgets for 2024-2027:**  
 2024: \$2,401,251  
 2025: \$2,464,141  
 2026: \$2,544,871  
 2027: \$2,605,030

**Anticipated directional and scale changes in budget for years 2028-2031:**  
 For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.

**Implementation Plan:** <https://cedars.sound-data.com/programs/TCR-Com-001/details/2024>

### III. TCR-CS-001 ENERGY CODE CONNECT

<b>Public-Facing Program Name:</b> Energy Code Connect	
<b>CEDARS Program Name:</b> Codes & Standards	
<b>Program ID:</b> TCR-CS-001 <b>New/Existing:</b> Existing <b>Link to implementation plan if existing (see D.21-05-031)</b> <a href="https://cedars.sound-data.com/documents/download/1333/main/">https://cedars.sound-data.com/documents/download/1333/main/</a>	
<b>Portfolio Segment:</b> Codes and Standards	<b>Implementation Party:</b> 3C-REN and Franklin Energy
<b>Applicable Sector:</b> Cross-Cutting	<b>Market Sub-Sector:</b> Codes and Standards
<b>Sector Challenge:</b>  <p>The value proposition of efficient buildings is different and poorly understood. Codes are complex and change every three years. Building departments have competing priorities and limited resources for code enforcement, while many private sector professionals in the region lack comprehension and technical understanding to fully implement codes.</p>	<b>Sector Opportunity:</b>  <p>Trainings and forums to discuss value propositions and changes to energy codes. Provide examples of local applications of energy code. Providing resources and technical assistance to building departments and private sector building professionals.</p>
<b>Known Equity Concerns in the Selected Markets:</b>  <p>Limited code trainings within the region. Lack of trainings offered to meet the regions energy needs. Lack of technical support for building professionals in private and public sectors</p>	<b>Proposed Solutions to Equity Concerns:</b>  <p>Provide comprehensive and tangible resources, trainings, and strategies for enforcing, comprehending, and complying with energy and green building codes. Provide technical support for building professionals to navigate codes and to develop and implement reach codes as desired.</p>
<b>Program Description:</b>  <p>The regional program offers local governments and local building professionals' access to the resources needed for enforcing and complying with the California Building Energy Efficiency Code (Title 24, Part 6) and the California Green Building Standards (Title 24, Part 11). The program offers local, person-to-person and online trainings, mentorship and in-the-field opportunities, as well as over-the-counter and on-call expert assistance for C&amp;S education and technical support. The program also offers technical and policy regional forums delivered multiple times per year with ranging topics. Lastly, the regional program offers technical support for jurisdictions seeking to develop and implement reach codes.</p>	
<b>Intervention Strategy:</b> <p>Technical Assistance - Professional assistance for code compliance for EE projects.  Partnering and relationships - Identifying and recruiting key community organizations and training</p>	<b>Program Metrics:</b> <p>For a full list of program metrics please see Appendix B, Tabs 17 and 18.2.</p>

<b>Public-Facing Program Name: Energy Code Connect</b>	
<b>CEDARS Program Name: Codes &amp; Standards</b>	
<p>partners needed to support codes and standards activities.</p> <p>Education – Develop and deliver technical trainings and events that meet the needs of Central Coast private and public sector building professionals.</p>	<p>Select metrics include:</p> <ul style="list-style-type: none"> <li>• Number and percent of jurisdictions with staff participating in an Energy Policy Forum</li> <li>• Number and percent of jurisdictions receiving Energy Policy technical assistance.</li> <li>•</li> </ul>
<p><b>High-level description of delivery workforce including necessary scale and its risks:</b></p> <p>Partnering with central coast professionals with years of experience in the construction industry working as contractors, planning consultants, HERS raters, GreenPoint Raters, architects, and Certified Energy Analysts. Partners commonly work in siloes, which decentralizes resources and trainings, creating barriers to provide standardized and comprehensive resources and trainings. Code interpretation is complicated and personalized, which poses a risk to the program’s constituents. The program seeks to get building professionals on the same page with regard to compliance, enforcement, and comprehension of codes in the region.</p>	
<p><b>Market Actors necessary for success:</b></p> <ul style="list-style-type: none"> <li>• County &amp; City Building Departments</li> <li>• County &amp; Local Government Agencies</li> <li>• Community Partners and Organizations</li> <li>• Private sector actors</li> <li>• California Energy Commission</li> <li>• Community Choice Aggregators</li> <li>• Investor-Owned Utilities</li> <li>•</li> </ul>	
<p><b>Solicitation Strategy:</b> Not applicable</p>	<p><b>Transition Plan:</b> Not applicable</p>
<p><b>Expected Program Life:</b> Ongoing</p>	<p><b>Short Term Plan</b> Ramp up technical assistance and reach code offerings to serve 10 jurisdictions. Continue to offer 20+ trainings and 3 regional technical and policy forums annually.</p>
<p><b>Cost Effectiveness</b> TRC: 0.00</p>	<p><b>Long Term Outlook</b> The program is a known and trusted resource to private and public sector building professionals across the region. 40% of building departments will have the necessary tools and resources to increase energy code compliance enforcement, and comprehension.</p>

<b>Public-Facing Program Name: Energy Code Connect</b>	
<b>CEDARS Program Name: Codes &amp; Standards</b>	
<b>Proposed Annual Budgets for 2024-2027:</b> 2024: \$1,861,967 2025: \$1,905,918 2026: \$2,005,263 2027: \$2,046,473	<b>Anticipated directional and scale changes in budget for years 2028-2031:</b> For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.
<b>Implementation Plan: <a href="https://cedars.sound-data.com/documents/download/1333/main/">https://cedars.sound-data.com/documents/download/1333/main/</a></b>	

#### IV. TCR-WET-001 BUILDING PERFORMANCE TRAINING

<b>Public-Facing Program Name: Building Performance Training</b> <b>CEDARS Program Name: Workforce Education &amp; Training</b>	
<b>Program ID:</b> TCR-WET-001 <b>New/Existing:</b> Existing <b>Link to implementation plan if existing (see D.21-05-031):</b> <a href="https://cedars.sound-data.com/documents/download/1325/main">https://cedars.sound-data.com/documents/download/1325/main</a>	
<b>Portfolio Segment:</b> Market Support	<b>Implementation Party:</b> 3C-REN
<b>Applicable Sector:</b> Cross-Cutting	<b>Market Sub-Sector:</b> Workforce Education and Training
<b>Sector Challenge:</b> The underlying challenge is that building professionals and entry-level workers are unaware of or lack training options for high-performance buildings that save energy while improving health, comfort, and resiliency. There is a lack of trainers in the high-performing building sector in the tri-county region to scale programs. Moreover, some building professionals may be unmotivated to participate in training because consumer demand for high-performing buildings is low.	<b>Sector Opportunity:</b> Work with community partners to develop and provide broader levels of outreach and support. Build capacity and provide resources for training partners in the tri-county region. Coordinate with building professionals to develop a worker and project pipeline for high-performing buildings.
<b>Known Equity Concerns in the Selected Markets:</b> There are non-English speaking building and construction professionals and entry-level workers who reside in the region. Entry-level construction workers may also lack formal education about building systems and energy efficiency. Training and education resources are not allocated evenly throughout the region. Trainings may not be accessible to all workers in the region due to content, location, technology access, limited availability, childcare needs, cost, etc. Limited long-term job opportunities within the region.	<b>Proposed Solutions to Equity Concerns:</b> Diversify training and outreach methods by providing training and outreach activities through different platforms (in person, online, etc.) at different time to accommodate to various schedules. Match trainings with the long-term construction needs of the tri-county area. Partner with local community organization serving disadvantaged and hard-to-reach communities to expand training offerings and resources available to disadvantaged workers.
<b>Program Description:</b> The Building Performance Training delivers technical and soft skill trainings and certifications focused on high-performance buildings. The program supports building professionals and those seeking career pathways in residential and commercial design, construction, real estate and related industries. Trainings are delivered locally and designed to meet the unique needs of the Tri-County region and are designed to serve hard-to-reach (HTR) workers and those identified as living in disadvantaged communities (DACs).	

**Public-Facing Program Name: Building Performance Training**

**CEDARS Program Name: Workforce Education & Training**

**Intervention Strategy:**

Education - Develop and deliver technical trainings and events that meet the needs of disadvantaged workers based in the tri-county area.

Partnering - Identifying and recruiting key local community and training partners needed to support workforce education and training activities.

Rural & Disadvantaged Community Outreach – Coordinating with partners to engage rural and disadvantaged communities through local channels.

**Program Metrics:**

For a full list of program metrics please see Appendix B, Tabs 17 and 18.2.

Select metrics include:

- Number of collaborations by Business Plan sector to jointly develop or share training materials or resources.
- Percent of participation relative to eligible target population for curriculum
- Percent of total WE&T training program participants that meet the definition of disadvantaged worker.
- 

**High-level description of delivery workforce including necessary scale and its risks:**

3C-REN has established relationships and partnerships with educational providers such as local community colleges, community-based organizations, and training vendors. 3C-REN will expand other existing county and local government relationships with workforce investment boards, trade groups, builders’ exchanges, existing contractors, and economic development agencies to refine, expand or build where necessary, trainings for the region. Communicate the value of high-performing trainings and education to students, professionals, and employers who engage in these institutions to expand offerings in this area. Create incentives to participate in trainings to offset competing interests and busy schedules. Create incentives for training participants and provide in-person, hands-on learning opportunities where possible and continue online and on-demand delivery to increase reach and scale.

**Market Actors necessary for success:**

- Primary (Direct training opportunities):
  - All Public & Private Green Industry Professionals
  - All Public & Private Building Industry Professionals
  - Entry-level workers
  - Career transitioners
- Secondary (Industry reach and influence, collaborations, coordination):
  - Educational institutions
  - Municipalities
  - Professional organizations and networks
  - Workforce and economic development organizations
  - Trade unions & associations
  - Program Implementors
  - Program Administrators
  - Utilities/Energy Providers
  - Industry manufacturers and retail organizations
  - Community organizations

**Solicitation Strategy:**

Not applicable.

**Transition Plan:**

Not applicable.

<b>Public-Facing Program Name: Building Performance Training</b>	
<b>CEDARS Program Name: Workforce Education &amp; Training</b>	
<b>Expected Program Life:</b> On going	<b>Short Term Plan</b> Build the capacity of 10 local partners to conduct outreach to the tri-county workforce, including disadvantaged and hard-to-reach communities.
<b>Cost Effectiveness</b> TRC: 0.00	<b>Long Term Outlook</b> Expand 3C-REN's current WE&T network by 15% annually to substantially grow the number of workers capable of creating and maintaining high performance buildings.
<b>Proposed Annual Budgets for 2024-2027:</b> 2024: \$2,087,734 2025: \$2,217,373 2026: \$2,406,678 2027: \$2,728,040	<b>Anticipated directional and scale changes in budget for years 2028-2031:</b> For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.
<b>Implementation Plan:</b> <a href="https://cedars.sound-data.com/documents/download/1325/main/">https://cedars.sound-data.com/documents/download/1325/main/</a>	

## V. TCR-CC-001 ENERGY ASSURANCE SERVICES

<b>Public-Facing Program Name:</b> Energy Assurance Services <b>CEDARS Program Name:</b> Energy Assurance Services	
<b>Program ID:</b> TCR-CC-001 <b>New / Existing:</b> New <b>Link to implementation plan if existing (see D.21-05-031):</b> <a href="https://cedars.sound-data.com/programs/TCR-CC-001/details/2024">https://cedars.sound-data.com/programs/TCR-CC-001/details/2024</a>	
<b>Portfolio Segment:</b> Market Support	<b>Implementation Party:</b> 3C-REN
<b>Applicable Sector:</b> Cross-cutting	<b>Market Sub-Sector:</b> Commercial and Public
<b>Sector Challenge:</b>  Commercial and public sector customers in the Tri-county region: <ul style="list-style-type: none"> <li>• Remain underserved with continuously aging buildings and infrastructure.</li> <li>• Have limited funding and capacity to implement projects and manage energy use.</li> <li>• Have various project needs ranging from technical support, management, incentives, and guidance on other program offerings.</li> <li>•</li> </ul>	<b>Sector Opportunity:</b> <ul style="list-style-type: none"> <li>• Variety of customer and project types</li> <li>• Leveraging existing relationships from prior program engagement</li> <li>• Coordinate with other regional PAs and program implementers to stack and leverage incentives</li> <li>• Provide comprehensive energy support services from cradle to grave</li> <li>• Help meet local climate and energy goals</li> </ul>
<b>Known Equity Concerns in the Selected Markets:</b>  Commercial and public sector customers in the tri-county region are geographically isolated and hard-to-reach. Disadvantaged communities and English as a Second Language (ESL) customers also are disproportionately excluded from participating in existing program offerings. In smaller operations, capacity and funding for expensive projects are lacking and projects neglected.	<b>Proposed Solutions to Equity Concerns:</b>  Technical assistance will help meet these customers where they are and give them personalized support to help them benefit equitably from available energy efficiency and advanced energy programs and opportunities. Partnering with trusted organizations and leveraging existing relationships with customers will help ensure outreach and education is relevant and delivers program offerings equitably to the region.
<b>Program Description:</b> The program will support commercial and public sector customers with energy management and technical support for comprehensive load management, including energy efficiency and resiliency projects. The program will also offer technical and educational regional forums on existing technologies, programs, and funding available to meet the needs of customers in the region.	
<b>Intervention Strategy:</b> <ul style="list-style-type: none"> <li>• Technical assistance - personalized and customizable support to identify energy and decarbonization upgrades, resiliency and DER strategies, and complementary programs for rebates.</li> </ul>	<b>Program Metrics:</b> For a full list of program metrics please see Appendix B, Tabs 17 and 18.2.  Select metrics include: <ul style="list-style-type: none"> <li>• Percent of Public Sector accounts participating in programs</li> </ul>

<b>Public-Facing Program Name: Energy Assurance Services</b> <b>CEDARS Program Name: Energy Assurance Services</b>	
<ul style="list-style-type: none"> <li>• Energy management – customized benchmark reporting for customers on a biannual basis to support knowledge gain and problem areas.</li> <li>• Regional Forums and Education – deliver technical and educational regional forums that will provide opportunities to learn about existing and new technologies and approaches for projects, programs, and funding as well as networking for relationship development and stakeholder input.</li> <li>• Outreach – develop robust marketing and outreach strategy to reach target audiences based on relationship and stakeholder input as well as available data and NAICS codes.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of benchmarked customers relative to eligible population for small/medium/large customers</li> </ul>
<b>High-level description of delivery workforce including necessary scale and its risks:</b> The program will be delivered through many channels and will utilize existing relationships with public sector staff, elected officials, chambers of commerce, and other member/community based organizations to successfully market and outreach. Potential project scope already exists for many public agencies and 3C-REN staff will be ready to capitalize and support customers in their journey from beginning to end. Commercial customers are already strapped in terms of capacity and means. The program will aim to ease the burden of project development and management for any and all energy, resilience, and DER projects. A robust marketing and outreach plan will be developed based on existing relationships and available data to better target key customers across the region. The program will also bring forward educational networking events to share technologies, available programs, and funding mechanisms as applicable by topic.	
<b>Market Actors necessary for success:</b> <ul style="list-style-type: none"> <li>• Engineering and consulting firms</li> <li>• Councils of Governments</li> <li>• Chambers of Commerce</li> <li>• Other Community and Member Based Organizations</li> <li>• Educational Providers</li> <li>• Municipalities, Special Districts, County Governments</li> <li>• Elected Officials</li> </ul>	
<b>Solicitation Strategy:</b> Not applicable	<b>Transition Plan:</b> Not applicable
<b>Expected Program Life:</b> New/launching in 2024 then ongoing	<b>Short Term Plan</b> Launch program, build initial partnerships and gather stakeholder input, procure services of various engineering firms, and ramp up to deliver technical assistance to commercial and public customers, hold several regional forums
<b>Cost Effectiveness</b> TRC: 0.00	<b>Long Term Outlook</b> Ensure program is supporting the market through increased awareness of energy efficiency and program opportunities; and expand program

<b>Public-Facing Program Name: Energy Assurance Services</b>	
<b>CEDARS Program Name: Energy Assurance Services</b>	
	services as needed to ensure service to more business/project types and isolated/disadvantaged/HTR customers
<b>Proposed Annual Budgets for 2024-2027:</b> 2024: \$394,162 2025: \$394,528 2026: \$494,910 2027: \$495,306	<b>Anticipated directional and scale changes in budget for years 2028-2031:</b> For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.
<b>Implementation Plan:</b> <a href="https://cedars.sound-data.com/programs/TCR-CC-001/details/2024">https://cedars.sound-data.com/programs/TCR-CC-001/details/2024</a>	

## VI. TCR-RES-003 SINGLE FAMILY HOME ENERGY SAVINGS

<b>Public-Facing Program Name:</b> Single Family Home Energy Savings <b>CEDARS Program Name:</b> Single Family NMEC	
<b>Program ID:</b> TCR-Res-003 <b>New / Existing:</b> Existing <b>Link to implementation plan if existing (see D.21-05-031):</b> <a href="https://cedars.sound-data.com/documents/download/2302/main/">https://cedars.sound-data.com/documents/download/2302/main/</a>	
<b>Portfolio Segment:</b> Equity	<b>Implementation Party:</b> 3C-REN and Recurve
<b>Applicable Sector:</b> Residential	<b>Market Sub-Sector:</b> Single Family Residential
<b>Sector Challenge:</b> Existing single-family homes remain inefficient and improvements are costly to implement	<b>Sector Opportunity:</b> Increased participation in EE program and adoption of EE measures.
<b>Known Equity Concerns in the Selected Markets:</b>  Hard to Reach (HTR) customers do not have equal access to IOU EE programs	<b>Proposed Solutions to Equity Concerns:</b>  Incentives structured to drive HTR customer participation in the program; higher incentives will be paid in HTR markets.
<b>Program Description:</b> The Residential Single-Family sub-program will deliver measurable energy savings targeted towards Hard to Reach (HTR) single-family households in the 3C-REN service territory. Savings will be claimed using a population Normalized Metered Energy Consumption (NMEC) Measurement and Verification (M&V) platform. The program implementer will deliver energy upgrades utilizing a network of energy efficiency installers (aggregators) who will be paid incentives based on the metered savings achieved with their installations.	
<b>Intervention Strategy:</b> Downstream – The program will pay incentives to contractors based on the metered savings of their customers following energy upgrades.	<b>Program Metrics:</b> For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.  Select metrics include: <ul style="list-style-type: none"> <li>• KWh and therms saved</li> <li>• HTR customers served</li> </ul>
<b>High-level description of delivery workforce including necessary scale and its risks:</b> The program will be most successful with strong engagement of local EE contractors who sign up to participate in the program as aggregators, though contractors outside of the tri-county region may also participate. The total program goal of 4,400 projects will require contractors with capacity to work at high volume, or high number of contractors. Risks to this design include low engagement from contractors, contractors that are unable to meet demand, contractors that don't create the expected pipeline of projects (low demand from residential customers), and contractors that are not fully trained to meet the goals of the program, such as installing heat pump water heaters.	
<b>Market Actors necessary for success:</b>  -Local/Regional Contractors -Supply Houses	

<b>Public-Facing Program Name: Single Family Home Energy Savings</b> <b>CEDARS Program Name: Single Family NMEC</b>	
<b>Solicitation Strategy:</b> Existing program	<b>Transition Plan:</b> Not applicable
<b>Expected Program Life:</b> 2021-ongoing	<b>Short Term Plan</b> Following the launch of program in 2022, monitor and modify incentive levels and program design details to identify the financial investment and program delivery specifications to drive program participation from HTR customers and local contractors.
<b>Cost Effectiveness</b> TRC: <ul style="list-style-type: none"> <li>• 2024: 0.39</li> <li>• 2025: 0.41</li> <li>• 2026: 0.44</li> <li>• 2027: 0.47</li> <li>• 2028: 0.50</li> <li>• 2029: 0.52</li> <li>• 2030: 0.54</li> <li>• 2031: 0.57</li> </ul>	<b>Long Term Outlook</b> Ensure program is supporting the market through increased adoption of energy efficiency and high-performance measures and generating work for local contractors; and expand program services as needed to ensure service to more customers, especially HTR customers
<b>Proposed Annual Budgets for 2024-2027:</b> 2024: \$4,704,816 2025: \$4,962,011 2026: \$5,025,989 2027: \$5,079,575	<b>Anticipated directional and scale changes in budget for years 2028-2031:</b> For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.
<b>Implementation Plan:</b> <a href="https://cedars.sound-data.com/documents/download/2302/main/">https://cedars.sound-data.com/documents/download/2302/main/</a>	

**VII. TCR-RES-002 MULTIFAMILY HOME ENERGY SAVINGS**

<b>Public-Facing Program Name: Multifamily Home Energy Savings</b> <b>CEDARS Program Name: Multifamily</b>	
<b>Program ID:</b> TCR-Res-002 <b>New / Existing:</b> Existing <b>Link to implementation plan if existing:</b> <a href="https://cedars.sound-data.com/documents/download/2301/main/">https://cedars.sound-data.com/documents/download/2301/main/</a>	
<b>Portfolio Segment:</b> Equity	<b>Implementation Party:</b> 3C-REN and Association for Energy Affordability
<b>Applicable Sector:</b> Residential	<b>Market Sub-Sector:</b> Multifamily Residential
<b>Sector Challenge:</b> <ul style="list-style-type: none"> <li>• Landlord/tenant split-incentive barrier</li> <li>• Property owners/managers don't have time to navigate the project process, and may not be aware of other program opportunities that could benefit them</li> <li>• Income-qualified/HTR/DAC properties are under-resourced and may not have facility staff availability to manage EE projects</li> <li>• Properties may need to phase their EE projects over time due to annual budget constraints</li> </ul>	<b>Sector Opportunity:</b> <ul style="list-style-type: none"> <li>• Increase EE awareness by working with property owners to explain the value of EE for their bottom line</li> <li>• Assist property owners/managers with technical questions and help them successfully complete projects, while building relationship to continue implementing projects in the future when budget allows</li> <li>• Offer educational and outreach materials and events to explain MF EE benefits and show examples of previous successful projects in the region</li> <li>• Partner with community organizations to expand reach of program marketing</li> </ul>
<b>Known Equity Concerns in the Selected Markets:</b>  Hard to Reach (HTR) customers do not have equal access to EE IOU programs. All renters in multifamily residential in two (San Luis Obispo and Santa Barbara) of the three tri-counties are all considered hard-to-reach.	<b>Proposed Solutions to Equity Concerns:</b>  Provide a higher incentive to boost support to underserved properties; partner with CBOs for outreach; track program performance and continually refine outreach to ensure participation by HTR properties across region.
<b>Program Description:</b>  3C-REN’s Multifamily program will deliver energy savings targeted to Hard to Reach (HTR) multifamily properties in the 3C-REN service territory. The program will include incentives to be paid to property owners/managers of multifamily properties with five or more units. The program includes site assessments, technical assistance, and a rebate structure that is based on the number of units in the complex. To qualify for the rebates, there are minimum GHG savings per apartment requirements that are calculated based on energy upgrade plans. The incentive structure also includes enhanced incentives for underserved properties and adders for higher performance measures, such as heat pumps.	
<b>Intervention Strategy:</b>  Downstream – The program will pay rebates to property owners with additional incentives for	<b>Program Metrics:</b> For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.

<b>Public-Facing Program Name: Multifamily Home Energy Savings</b> <b>CEDARS Program Name: Multifamily</b>	
underserved and adds for high-performance measures. Program will offer technical assistance and referral to other programs for layering additional benefits.	Select metrics include: <ul style="list-style-type: none"> <li>• kW savings</li> <li>• kWh savings</li> <li>• Therm savings</li> <li>• Installed measures</li> <li>• Number of multifamily units served</li> <li>• Number of HTR properties served</li> </ul>
<b>High-level description of delivery workforce including necessary scale and its risks:</b> <p>There are no plans to initiate partnerships with job training and placement entities directly. However, the program will work with 3C-REN’s Building Performance Training (BPT) program, which is well-connected to these types of programs in the region, to inform training participants of the Multifamily sub-program. The program will not require placement experience, but the intent of the program is to grow the energy efficiency market in the region by incentivizing property owners/managers to conduct energy upgrades. Market growth may in turn lead to more placements from recently trained professionals. Although the program will not require “first source” hiring, the intent of the program is to grow the energy efficiency market in the region. Risks to this design include low engagement from contractors, contractors that are unable to meet demand, contractors that don’t create the expected pipeline of projects (low demand from multifamily property owners), and contractors that are not fully trained to meet the goals of the program.</p>	
<b>Market Actors necessary for success:</b> -Local/Regional Contractors -Distributors and suppliers of efficient equipment	
<b>Solicitation Strategy:</b> Existing program	<b>Transition Plan:</b> Not applicable
<b>Expected Program Life:</b> 2024-ongoing	<b>Short Term Plan</b> Build awareness of the program amongst stakeholder groups, and continue to strengthen relationships with property owners, and a reputation for providing a valuable program that is easy to participate in.
<b>Cost Effectiveness</b> TRC: <ul style="list-style-type: none"> <li>• 2024: 0.59</li> <li>• 2025: 0.42</li> <li>• 2026: 0.45</li> <li>• 2027: 0.49</li> <li>• 2028: 0.51</li> <li>• 2029: 0.53</li> <li>• 2030: 0.56</li> <li>• 2031: 0.58</li> </ul>	<b>Long Term Outlook</b> The program is a known and trusted resource that property owners, especially affordable housing agencies, seek out when planning a rehab or upgrade project. Participants are being connected with and accessing all applicable incentives available to them to conduct deep energy saving retrofits.
<b>Proposed Annual Budgets for 2024-2027:</b> 2024: \$3,747,708	<b>Anticipated directional and scale changes in budget for years 2028-2031:</b>

<b>Public-Facing Program Name: Multifamily Home Energy Savings</b>	
<b>CEDARS Program Name: Multifamily</b>	
2025: \$3,972,483 2026: \$4,203,660 2027: \$4,727,469	For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 3.5%.
<b>Implementation Plan:</b> <a href="https://cedars.sound-data.com/documents/download/2301/main/">https://cedars.sound-data.com/documents/download/2301/main/</a>	