

Proceeding: A.26-03-XXX
Exhibit No.: 3C-REN-02
Date: March 16, 2026
Witnesses: Various

TRI-COUNTY REGIONAL ENERGY NETWORK

2028-2031 PORTFOLIO PLAN AND 2028-2035 BUSINESS PLAN

PROGRAM CARDS

EXHIBIT 2

TCR- AG-001 AGRICULTURE TECHNICAL ASSISTANCE

Program Name: Agriculture Technical Assistance		
Program ID: TCR-AG-001 New / Existing: Existing Expected Program Duration: 2024 - onwards		
Portfolio Segment: Market Support	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Agricultural		Customer Group(s): Agricultural Participants (farmers/producers); water districts providing service to agricultural customers
Sector Challenges: 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 Lack of information for connecting Time of Use with watering, pumping, and soil moisture monitoring		Sector Opportunities (Expected Outcome(s)): Personalized, customized technical assistance can help customers understand their energy profile, identify 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, supporting both indoor and outdoor agriculture energy needs Layering opportunity with complementary programs to provide resources for energy efficiency and water-energy nexus projects, and resiliency support for the region's food system Build relationships with the young farmers and ranchers groups in 3C-REN's three counties and introduce energy efficiency in agriculture to those that will be taking over their family farms/ranches. Early outreach opportunities have shown that the younger generation is more interested and open to energy efficiency projects and are motivated by environmental issues
Brief Program Description: (Including customer target, program strategies employed, expected program outcome): 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		

<p>participation among agricultural customers in the tri-county region. Technical assistance could include but is not limited to utility bill analysis, benchmarking, energy assessments, and pump efficiency testing, referrals to complementary programs wherever possible, and project management assistance to shepherd customers through the participation process. The program will highlight the benefits of a thriving food system by supporting owners and operators from seed to plate, including indoor and agriculture operations, water districts providing service to agriculture operations, and other agriculture facilities/businesses. The program will make recommendations on energy saving and water-energy nexus measures and focus outreach to smaller producers and socially disadvantaged agricultural customers. The program will be offered in partnership with implementer partners (implementors).</p>	
<p>Known Equity Concerns in the Selected Markets (if applicable):</p> <p>Smaller producers and socially disadvantaged agricultural customers (per the USDA definition¹) face challenges including lack of engagement with broader agricultural industry groups as well as lack of knowledge of available resources and energy efficiency programs</p> <p>These barriers are compounded for Spanish-speaking-only farmers in the region, who may experience additional difficulties accessing information and support</p>	<p>Proposed Solutions to Equity Concerns (if applicable):</p> <p>Technical assistance will meet farmers where they are by engaging them at trusted agricultural events, such as regional Agri-Tech Fairs, and providing personalized support to help them equitably access energy efficiency and advanced energy opportunities. Partnering with trusted agricultural organizations ensures outreach and education are relevant, culturally appropriate, and responsive to community needs</p>
<p>Intervention Strategy: Technical Assistance; Marketing and Outreach/Information</p>	<p>Delivery Type: Downstream</p>
<p>Measurement and Verification Methods: Not Applicable</p>	<p>Program Total System Benefit (TSB) for 2028-2031: Not Applicable</p>

¹ Socially Disadvantaged Farmer or Rancher or Agricultural Producer Definition:

According to Section 2501(e)(2) of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 USC 2279(e)(2)), a Socially disadvantaged farmer or rancher (SDA) is defined as a farmer or rancher who is a member of a "Socially Disadvantaged Group". Therefore a "Socially Disadvantaged Farmer or Rancher" is defined as:

1. Socially disadvantaged group- a group whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. The definition that applies to Titles I, V, and VI includes members of a group subject to gender prejudice, while the definition that applies to Titles II, IX, XII, and XV does not. Title XIV and the Education and Risk Management Assistance provision in Title XII do not make specific reference to the statutory definition of socially disadvantaged farmer or rancher.

2. Socially disadvantaged Farmer or Rancher- a farmer or rancher who has been subjected to racial or ethnic prejudices because of their identity as a member of a group without regard to their individual qualities. This term means a farmer or rancher who is a member of a socially disadvantaged group. Specifically, a group whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. Those groups include African Americans, American Indians or Alaskan natives, Hispanics, and Asians or Pacific Islanders.

USDA maintained this definition for the 2008, 2014, and 2018 Farm Bills.

<p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$510,881 • 2029: \$523,200 • 2030: \$566,856 • 2031: \$579,640 	<p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031: Not Applicable</p>
<p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 4%.</p>	<p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Ag industry organizations • Local & regional organizations serving socially disadvantaged & smaller ag customers • Resource Conservation Districts • Farm Bureau Agencies • UC Cooperative Extension • Incentive/rebate program implementors • Local/Regional USDA offices (Natural Resource Conservation Service, Farm Service Agency) • Ag Financing Businesses • Irrigation systems businesses
<p>High-level description of delivery workforce including necessary scale and its risks: 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>Near-term Program Output(s) (1-4 years) Establish and strengthen partnerships to expand program reach, serve 10–15 agricultural customers annually, produce referrals to IOU and other incentive programs that enable implementation of program recommendations, and demonstrate year-over-year growth in program participation.</p>	
<p>Long Term Outcome (5-10 years): Support the agricultural market through measurable increases in awareness of energy efficiency and program opportunities, expand program services to ensure access for smaller producers and socially disadvantaged agricultural customers, and achieve implementation or installation of recommended upgrades in at least 50% of program participants.</p>	
<p>Does this program interact with other programs in this PA portfolio? If so, describe: Yes, this program interacts with the commercial program when referring leads based on fit. Similarly, the commercial program will refer ag businesses to this program. However, this relationship does not result in any “double dipping” as the ag program is a market support program only and does not provide incentives.</p>	
<p>Program Metrics and Indicators (KPIs):</p>	

For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.

Unique value metrics:

- Number of Ag program referrals
- Number of Ag technical assistance cases/audits

Does this program utilize Integrated Demand Side Management (IDSMS)?
Multi-DER IDSMS

Link to Existing Implementation Plan, if existing:
[Implementation Plan](#)

TCR- CC-001 ENERGY ASSURANCE SERVICES

Program Name: Energy Assurance Services Program		
Program ID: TCR-CC-001 New / Existing: Existing Expected Program Duration: 2024 - onwards		
Portfolio Segment: Market Support	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Cross-cutting: Commercial and Public		Customer Group(s): Public agencies/jurisdictions, nonprofits, and educational institutions (prioritizing critical facilities and community-serving locations)
Sector Challenges: Remain underserved with continuously aging buildings and infrastructure Have limited funding and capacity to implement projects and manage energy use Have various project needs ranging from technical support, procurement challenges, and resource acquisition Need to be more self-sufficient, as they are often within rural communities that are at edge of utility lines and have increased vulnerabilities to natural disasters, damaged infrastructure, and power outages Have project implementation needs that require more technical assistance and dedication than their own staff can provide		Sector Opportunities (Expected Outcome(s)): Serve a variety of customer and project types Leverage existing relationships as local government employees and residents Coordinate with other regional PAs and program implementers to stack and leverage incentives Provide comprehensive energy upgrade and building retrofit support services from project development to completion Help meet local climate and energy goals by supporting nonresidential building stock upgrades Provide technical assistance and other related services that support energy efficiency and integrated demand side management, while advancing resiliency planning and helping entities navigate funding and project development to mitigate hazards such as wildfire impacts, declining air quality, and Public Safety Power Shutoffs (PSPS). This supports continuity of community-serving operations while helping them manage their energy costs during non-emergency times

<p>Brief Program Description: (Including customer target, program strategies employed, expected program outcome):</p> <p>The program supports public sector, nonprofit, and educational institution customers with technical support for comprehensive load management and building upgrades, including energy efficiency and resiliency projects. The program offers technical assistance and focuses on providing ongoing support and connections to resources that ensure project implementation and success.</p>	
<p>Known Equity Concerns in the Selected Markets (if applicable):</p> <p>Public sector, nonprofit and educational institution customers in the tri-county region are geographically isolated and hard-to-reach. To access resources and procure services to implement projects require a level of technical assistance inaccessible to most target customers</p> <p>Facilities in disadvantaged, hard-to-reach communities are disproportionately excluded from participating in existing program offerings. In smaller operations, capacity and funding for expensive projects are lacking and projects are neglected</p>	<p>Proposed Solutions to Equity Concerns (if applicable):</p> <p>Technical assistance helps to overcome customers' barriers to meeting their energy goals and improving their building stock thus preparing them to apply for funding and access other resources. Personalized services offered by the program ensure access to available energy efficiency and advanced energy programs and opportunities. For two out of the three counties in 3C-REN territory, all public sectors are categorized as HTR</p> <p>Partnering with trusted organizations and leveraging existing relationships with customers; as local government employees and community members, the program can successfully deliver outreach and program offerings equitably to the region. The program prioritizes support for rural and isolated facilities that deliver critical community services.</p>
<p>Intervention Strategy: Technical Assistance</p>	<p>Delivery Type: Downstream</p>
<p>Measurement and Verification Methods: Not Applicable</p>	<p>Program Total System Benefit (TSB) for 2028-2031: Not Applicable</p>
<p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$508,466 • 2029: \$517,089 • 2030: \$556,901 • 2031: \$565,687 	<p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031: Not Applicable</p>
<p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 4%.</p>	<p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Engineering and consulting firms • Other Community and Member Based Organizations • Educational Providers • Municipalities, Special Districts, County Governments

<p>High-level description of delivery workforce including necessary scale and its risks: The program is delivered through many channels and utilizes existing relationships with the market actors to successfully market and outreach. As this customer group is already strapped in terms of capacity and means, the program works to support customers in their journey from beginning to end. With the current demand for technical assistance within the customers served, sufficient capacity is successfully met.</p>	
<p>Near-term Program Output(s) (1-4 years)</p> <ul style="list-style-type: none"> • Complete 2-3 deep energy audits on community-serving facilities each year • Provide at least 20 cases of technical assistance to community-serving facilities as needed to ensure project implementation each year • Provide ongoing support to previous auditees and track their progress in implementing audit recommendations, procuring resources, and meeting their energy and resilience goals • Provide community-serving facilities in the tri-county region a nimble, robust offering of technical assistance services to ensure project implementation and projected energy savings 	
<p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Scale up and expand deep energy audit and technical assistance offerings to adeptly serve the energy and resilience project implementation needs for public agencies/jurisdictions, nonprofits, and educational institutions in the tri-county region. • Become the key actor for community-serving entities in the tri-county region to implement energy efficiency and resilience projects and achieving widespread regional recognition for these invaluable services • Measure and document any connected outcomes of previous auditees/technical assistance cases, such as through leveraged funding, successful grant applications, and participation in other programs 	
<p>Does this program interact with other programs in this PA portfolio? If so, describe: Yes, this program is designed to function as a front-end technical assistance/audit and navigation program that refers participants into other rebate programs available from 3C-REN (such as Commercial Energy Savings) and other program administrators.</p>	
<p>Program Metrics and Indicators (KPIs): For a full list of program metrics please see Appendix B, Tabs 17 and 18.1. Unique value metrics:</p> <ul style="list-style-type: none"> • kWh predicted savings if EAS audit measures are implemented • Therm predicted savings if EAS audit measures are implemented • Number of EAS technical assistance cases/audits • Number of EAS program referrals • Percent of EAS technical assistance cases for facilities in commercial HTR, disadvantaged, or underserved communities 	
<p>Does this program utilize Integrated Demand Side Management (IDSMS)? Multi-DER IDSMS</p>	<p>Link to Existing Implementation Plan, if existing: Implementation Plan</p>

TCR-COM-001 COMMERCIAL MARKETPLACE

Program Name: Commercial Marketplace Program		
Program ID: TCR-Com-001 New / Existing: Existing Expected Program Duration: 2024 - onwards		
Portfolio Segment: Equity	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Commercial		Customer Group(s): Commercial Businesses (with focus on small-to-medium businesses, municipal and nonprofit entities, and Hard-to-Reach customers)
Sector Challenges: Small business owners/managers don't have time to navigate the project process Small businesses are under-resourced and do not have sufficient capital to pay for project costs High energy burden and narrow margins reduce commercial businesses' capacity to invest in energy-efficiency improvements The commercial sector has significantly less resources and customer education than the residential sector, contributing to lower awareness of energy-efficiency offerings Businesses in geographically isolated regions are less likely to receive in-person support from statewide programs Insight into needed after individual projects are completed to further understand utility bill impact (Non-Energy Benefit)		Sector Opportunities (Expected Outcome(s)): Through its dedicated concierge support and targeted collaborations, the program helps absorb tasks that would otherwise fall on small business owners with limited time and capacity Layer incentives with local and statewide programs to reduce upfront project costs, while helping customers navigate additional financing options that can further support project adoption By offering incentives and equipment support, the program helps businesses overcome financial constraints associated with high energy burden, advancing its core mission to reduce energy costs and promote long-term energy savings Use technical assistance to build ongoing customer relationships and connect businesses to additional programs and financing, while leveraging in-person outreach and the implementer's data platform to increase contractor engagement and project submissions Leverage the largely untapped incentive market in the commercial sector, creating opportunities to engage and educate

	<p>businesses that have not previously accessed EE offerings</p> <p>Localized, in-person outreach can increase contractor engagement and project submission</p> <p>Leverage the program implementer’s software platform to estimate utility bill impact</p> <p>Leverage program performance data support increased contractor engagement so they know how projects perform with accurate forecasts</p>
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Brief Program Description: (Including customer target, program strategies employed, expected program outcome):
 3C-REN will provide concierge support and financial assistance to support local businesses with implementing energy saving measures, focusing on small-to-medium businesses and Hard-to-Reach customers. Customer participation can include being educated on local program offerings and benefits, utilizing 3C-RENs complementary technical assistance program Energy Assurance Services, and/or by making upgrades as part of a Population 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. 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>Known Equity Concerns in the Selected Markets (if applicable):</p> <p>Limited ability of equity customers to prioritize EE amid pressing competing burdens. Equity customers have limited capacity to work with contractors on installation</p> <p>Small businesses are underserved by EE Local and diverse small businesses may be under-resourced</p> <p>A substantial number of non-English-speaking businesses face language barriers that hinder awareness, understanding, and participation in available EE programs</p> <p>HTR commercial customers are underserved with energy-saving potential</p>	<p>Proposed Solutions to Equity Concerns (if applicable):</p> <p>Program eligibility is based on business size and energy usage and is specifically designed to capture these underserved businesses</p> <p>Targeted outreach to local and diverse businesses, in partnership with local chambers and CBOs</p> <p>Enroll contractors who speak the languages of local business owners and provide outreach, marketing, and technical materials in multiple languages—particularly Spanish—to reduce language barriers and improve program accessibility for non-English-speaking businesses</p> <p>Local government engagement provides a unique opportunity to identify and support HTR, underserved, and geographically isolated businesses that have historically faced barriers to participating in EE programs</p>
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<p>Intervention Strategy: Incentive/rebate; Marketing and Outreach/Information</p>	<p>Delivery Type: Downstream</p>
<p>Measurement and Verification Methods: NMEC – Population</p>	<p>Program Total System Benefit (TSB) for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$1,401,812.15 • 2029: \$1,562,918.77 • 2030: \$1,733,477.57 • 2031: \$1,977,341.86
<p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$2,995,480 • 2029: \$3,104,254 • 2030: \$3,292,368 • 2031: \$3,410,577 	<p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <p>2028</p> <ul style="list-style-type: none"> • TRC: 0.38 • PAC: 0.51 <p>2029</p> <ul style="list-style-type: none"> • TRC: 0.41 • PAC: 0.55 <p>2030</p> <ul style="list-style-type: none"> • TCR: 0.43 • PAC: 0.57 <p>2031</p> <ul style="list-style-type: none"> • TCR: 0.45 • PAC: 0.62
<p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>For the program budget forecast for the outer strategic business plan years of 2028-2031, 3C-REN assumed an annual rate of increase of 4%.</p>	<p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Businesses, especially Hard-to-Reach • Local partner organizations (utilities, CCEs, economic development, CBOs, agencies, etc.) • Local contractors • Implementation firms • Manufacturers
<p>High-level description of delivery workforce including necessary scale and its risks:</p> <p>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 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.</p>	
<p>Near-term Program Output(s) (1-4 years)</p> <ul style="list-style-type: none"> • Cultivate a strong network of contractors actively submitting EE projects in the tri-county region. • Ensure program yields optimal total system benefit whilst serving a majority of equity target participants. • Employ a data-driven approach to improving program design based on EM&V findings. 	

- Increase program awareness.

Long Term Outcome (5-10 years):

- Foster a strong network of contractors that are actively submitting commercial EE projects in the tri-county region. This network is also consistently engaging in 3C-REN workforce development opportunities and demonstrates commitment to continuous improvement of project quality for customers. The 3C-REN contractor network serves as an example of a successful contractor community for the state and beyond.
- Implement a highly efficient, cost-effective program that sets a gold standard for optimal total system benefit whilst serving a majority of hard-to-reach businesses, unable to be served by any other program administrator.
- The program has widespread regional brand recognition with all market actors as a ratepayer-funded program that empowers business owners, especially hard-to-reach businesses, to operate more safely and cost-effectively.

Does this program interact with other programs in this PA portfolio? If so, describe:

Yes, 3C-REN offers two NMEC programs (Single Family and Commercial) that share the same implementer, and support aggregators participating in both markets. Due to similar measurement methods and similar equipment installed across markets, best practices are regularly shared through the programs. 3C-REN’s WE&T and C&S programs have training opportunities and coaching services that complement the maintenance aspects of the projects completed in this commercial program. Program teams are creating pathways to ensure participating contractors benefit from 3C-REN’s resource, training, and codes and standards programs to ensure wraparound benefits to contractors and quality service to the customers they serve.

Program Metrics and Indicators (KPIs):

For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.

Select metrics include:

- Lifecycle ex-ante kWh gross and net
- Lifecycle ex-ante Therm gross and net
- CO2-equivalent of net annual kWh savings

Unique value metric:

- Percentage of fuel substitution CES projects

Does this program utilize Integrated Demand Side Management (IDSM)?

Multi-DER IDSM

Link to Existing Implementation Plan, if existing:

[Implementation Plan](#)

TCR- CS-001 ENERGY CODE CONNECT

Program Name: Energy Code Connect		
Program ID: TCR-CS-001 New / Existing: Existing Expected Program Duration: 2019 - onwards		
Portfolio Segment: Codes and Standards	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Cross-cutting		Customer Group(s): Local governments, building owners, and building professionals
Sector Challenges: Codes are complex and change every three years Building departments have competing priorities and limited resources for code compliance Private sector professionals in the region lack comprehension and technical understanding to fully implement codes Building owners may not have sufficient familiarity with building codes, especially the forms and documentation required for compliance		Sector Opportunities (Expected Outcome(s)): Trainings and forums to discuss the importance and updates to energy codes, including frequently misunderstood portions Provide visual and narrative examples of local applications of energy code Explore new education offerings for energy code and wildfire resiliency nexus, heat pump water heaters, and permit streamlining Providing resources and technical assistance to building departments, private sector building professionals, and building owners Determine technical assistance capabilities related to AB 39 and electrification plans Increased understanding of the energy code, improvement in permitting experience and compliance
Brief Program Description: (Including customer target, program strategies employed, expected program outcome): The regional program offers local governments, building owners, and building professionals' access to the resources needed for comprehending, 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, in-person and online trainings, mentorship and in-the-field opportunities, qualification building, and on-call expert assistance for C&S education and technical support. The program also offers technical and policy regional forums delivered multiple times per year with ranging topics on critical and emerging issues facing the industry. Lastly, the regional program offers technical support for jurisdictions seeking to develop and/or implement reach codes and electrification plans required by AB39.		

Expected outcomes include increased understanding of the energy code, improvement in permitting experience and compliance.	
Known Equity Concerns in the Selected Markets (if applicable): Limited code trainings within the region. Lack of trainings offered to meet the region’s energy needs. Lack of technical support for building owners and building professionals in private and public sectors. Lack of translated offerings for building professionals to understand code, particularly contractors. Limited Energy Code Compliance (ECC) Raters within the region.	Proposed Solutions to Equity Concerns (if applicable): Provide comprehensive, tangible, and in-language options for resources, trainings, and strategies for enforcing, comprehending, and complying with energy and green building codes. Provide technical support for building professionals to gain qualifications, navigate codes, and to develop and implement reach codes as desired.
Intervention Strategy: Technical Assistance	Delivery Type: Codes & Standards
Measurement and Verification Methods: Not Applicable	Program Total System Benefit (TSB) for 2028-2031: Not Applicable
Annual Budgets for 2028-2031: <ul style="list-style-type: none"> • 2028: \$1,859,714 • 2029: \$1,929,342 • 2030: \$2,010,030 • 2031: \$2,083,045 	Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031: Not Applicable
Anticipated directional and scale changes in budget for years 2032-2035: Anticipate an increase in budget for this program for the 2032-2035 period, dependent on program performance.	Market Actors necessary for success: <ul style="list-style-type: none"> • County & City Building Departments • County & Local Government Agencies • Community Partners and Organizations • Private sector actors, including contractors, architects, builders, building owners, developers, energy consultants, and more • California Energy Commission
High-level description of delivery workforce including necessary scale and its risks: Partnering with central coast professionals with years of experience in the construction industry working as contractors, planning consultants, ECC 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 on compliance, enforcement, and comprehension of codes in the region.	
Near-term Program Output(s) (1-4 years) Continue to be a known and trusted resource to private and public sector building professionals across the region, and offer trainings, technical assistance, and policy forums annually.	

Long Term Outcome (5-10 years):

Regional building professional audience have the necessary tools and resources to increase energy code compliance enforcement, and comprehension.

Does this program interact with other programs in this PA portfolio? If so, describe:

3C-REN's WE&T and C&S programs have training opportunities and coaching services that complement the maintenance aspects of Single-family, Multifamily, and Commercial programs. Program teams are creating pathways to ensure participating contractors benefit from 3C-REN's resource, training, and codes and standards programs to ensure wraparound benefits to contractors and quality service to the customers they serve.

Program Metrics and Indicators (KPIs):

For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.

Select unique value metrics include:

- Percentage of territory jurisdictions receiving technical assistance
- Number of organizations (private) receiving technical assistance
- Number of jurisdictions receiving at least 1 marketing touch

Does this program utilize Integrated Demand Side Management (IDSMS)?

Multi-DER IDSMS

Link to Existing Implementation Plan, if existing:

[Implementation Plan](#)

TCR-RES-002 MULTIFAMILY HOME ENERGY SAVINGS

Program Name: Multifamily (Home Energy Savings) Program		
Program ID: TCR-RES-002		
New / Existing: Existing		
Expected Program Duration: 2022 - onwards		
Portfolio Segment: Equity	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Residential		Customer Group(s): Multifamily Residential
Sector Challenges: Landlord/tenant split-incentive barrier 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 Income-qualified/HTR/DAC properties are under-resourced and may not have facility staff availability to manage EE projects Properties may need to phase their EE projects over time due to annual budget constraints		Sector Opportunities (Expected Outcome(s)): Increase EE awareness by working with property owners to explain the value of EE for their bottom line 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 Offer educational and outreach materials and events to explain MF EE benefits and show examples of previous successful projects in the region Partner with community organizations to expand reach of program marketing
Brief Program Description: (Including customer target, program strategies employed, expected program outcome): 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.		
Known Equity Concerns in the Selected Markets (if applicable):		Proposed Solutions to Equity Concerns (if applicable):

<p>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.</p>	<p>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.</p>
<p>Intervention Strategy: Incentive/rebate; Marketing and Outreach/Information</p>	<p>Delivery Type: Downstream</p>
<p>Measurement and Verification Methods: Deemed</p>	<p>Program Total System Benefit (TSB) for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$1,897,233.40 • 2029: \$2,117,073.39 • 2030: \$2,376,051.69 • 2031: \$2,677,300.93
<p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$5,319,620 • 2029: \$5,558,925 • 2030: \$5,813,278 • 2031: \$6,072,968 	<p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <p>2028</p> <ul style="list-style-type: none"> • TRC: 0.40 • PAC: 0.47 <p>2029</p> <ul style="list-style-type: none"> • TRC: 0.42 • PAC: 0.49 <p>2030</p> <ul style="list-style-type: none"> • TRC: 0.44 • PAC: 0.52 <p>2031</p> <ul style="list-style-type: none"> • TRC: 0.46 • PAC: 0.54
<p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>For the program budget forecast for the outer strategic business plan years of 2032-2035, 3C-REN assumed an annual rate of increase of 4%.</p>	<p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Local/Regional Contractors • Distributors and suppliers of efficient equipment
<p>High-level description of delivery workforce including necessary scale and its risks:</p> <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>	

<p>Near-term Program Output(s) (1-4 years)</p> <ul style="list-style-type: none"> • Serve 900 units per year, in which 50% would be considered equity. 	
<p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Serve 4,500 to 9,000 units with high efficiency equipment, of which 50% would be considered equity. 	
<p>Does this program interact with other programs in this PA portfolio? If so, describe: Yes, this PA offers two programs in the residential sector—this example residential program is complemented by a third-party solicited single family program. This PA also offers WET and C&S programs which have training opportunities that complement the maintenance aspects of the projects completed in this multifamily residential program. These programs are coordinating and sharing best practices on bi-weekly calls.</p>	
<p>Program Metrics and Indicators (KPIs): For a full list of program metrics please see Appendix B, Tabs 17 and 18.1. Select metrics include:</p> <ul style="list-style-type: none"> • Lifecycle ex-ante kWh gross and net – In Unit • Lifecycle ex-ante Therm gross and net – In Unit • CO2-equivalent of net annual kWh savings <p>Unique value metrics:</p> <ul style="list-style-type: none"> • Percentage of completed projects that utilized additional leveraged funds to cover the costs of the project • Percentage of decisionmakers who received advanced technical assistance • Percentage of projects serving priority communities and populations (e.g. seniors, unhoused, deed-restricted) • Percentage of MHES projects with fuel substitution measures 	
<p>Does this program utilize Integrated Demand Side Management (IDSMS)? Multi-DER IDSMS</p>	<p>Link to Existing Implementation Plan, if existing: Implementation Plan</p>

TCR-RES-003 SINGLE FAMILY NMEC (HOME ENERGY SAVINGS)

Program Name: Single-Family NMEC (Home Energy Savings) Program		
Program ID: TCR-RES-003 New / Existing: Existing Expected Program Duration: 2022 - onwards		
Portfolio Segment: Equity	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Residential		Customer Group(s): Single Family Residential
Sector Challenges: <p>Existing and aging single-family homes remain inefficient and costly to upgrade, notably, electrification requires higher upfront costs. Upgrades are hardest for equity target participants (HTR, DAC, and underserved)</p> <p>Regional workforce gaps restrict local contractor participation and can lead to higher project costs for less familiar technologies such as heat pump water heaters</p> <p>Program start-stop patterns and changes in program layering opportunities make it difficult for contractors to stay updated and engage in programs</p> <p>When contractors are not sufficiently trained, installations do not always perform optimally and can result in missed savings and customer complaints. Though 3C-REN offers training programs, it is difficult to get contractors engaged</p> <p>Cost-effectiveness frameworks do not fully reflect value of equity programs such as Non-Energy Benefits</p> <p>Building decarbonization through electrification is an effective strategy to meet local and state climate goals, however, robust and consistent data on the impacts to customer electric bills are still lacking</p>		Sector Opportunities (Expected Outcome(s)): <p>Increased adoption of energy efficiency and electrification measures by leveraging actual program data to help homeowners make data-informed decisions based on costs and savings, focusing on the measures that will have the most positive impact.</p> <p>Leverage local government staff's existing relationships and partnerships with community-based organizations to build trust and ensure equity target participants benefit from energy upgrades</p> <p>Lower project costs as contractors and customers get more familiar with heat pump technology, allowing for lowered incentives over time</p> <p>Strengthened regional market capacity to support electrification. Deepened relationships and lines of communication with contractors ensure continuous work through changing incentive landscapes As the program matures, an expanded contractor base ensures that there are more opportunities to get enrolled contractors engaged in training opportunities</p> <p>Improved tracking, reporting, and weighting of non-energy benefits, such as home comfort and safety, to reflect full program value. Ensure continuous feedback loops with</p>

	<p>customers to fully understand program benefits</p> <p>Ensure emissions reductions through building carbonization are in alignment with local and state climate goals</p>
<p>Brief Program Description: (Including customer target, program strategies employed, expected program outcome):</p> <p>The Single Family NMEC (Home Energy Savings) Program serves single family residential customers (1-4 units), including individually metered mobile homes, with a focus on equity target participants (HTR, DAC, Underserved). The program uses an NMEC delivery model to implement energy efficiency upgrades designed to save customers energy and money while also making their homes more comfortable and safer. The program offers incentives (with additional multipliers to equity target participants) to help with upfront costs on HVAC and water heating improvements, as well as other energy-savings upgrades. Program strategies are based on data-informed decision making and include targeted outreach to equity target participants and contractor engagement. Budget allocations for equity target customers motivate contractors to prioritize serving these customers. Innovative incentive distribution structures enable participation where both the contractor and the customer benefit from the pay-for-performance incentive. The Single Family NMEC Program is singular in enabling participation for residential contractors whereas conventional NMEC program design prohibits residential contractor participation.</p>	
<p>Known Equity Concerns in the Selected Markets (if applicable):</p> <p>High costs of living on the Central Coast result in a high population of equity target customers spread over a broad geographic region</p> <p>Equity target customers, especially low-income, non-English speaking and geographically isolated customers, do not have equal access to IOU EE programs</p> <p>High energy burden for low-income customers. Income-based energy programs require no increase in energy bills</p> <p>Limited ability of equity customers to prioritize EE amid pressing competing burdens. Equity customers have limited capacity to work with contractors on installation</p>	<p>Proposed Solutions to Equity Concerns (if applicable):</p> <p>Incentive multipliers for equity target customers. Curating contractors that are adept at serving equity target customers. Incentives and data-informed program design structured to drive equity target participant participation. Leverage local government staff's existing relationships and partnerships with community-based organizations to build trust and ensure equity target participants benefit from energy upgrades</p> <p>Energy efficiency upgrades can lower energy use and costs among other non-energy benefits. Improved tracking, reporting, and weighting of non-energy benefits, such as home comfort and safety, to reflect full program value</p> <p>Customer education and outreach focused on bill savings, comfort, and health benefits. Concierge services to support customers</p>
<p>Intervention Strategy: Incentive/rebate; Marketing and Outreach/Information</p>	<p>Delivery Type: Downstream</p>

<p>Measurement and Verification Methods: NMEC – Population</p>	<p>Program Total System Benefit (TSB) for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$3,941,190.72 • 2029: \$4,311,008.82 • 2030: \$4,799,269,17 • 2031: \$5,402,811.65
<p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$7,637,083 • 2029: \$8,020,253 • 2030: \$8,424,178 • 2031: \$8,788,321 	<p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <p>2028</p> <ul style="list-style-type: none"> • TCR: 0.21 • PAC: 0.67 <p>2029</p> <ul style="list-style-type: none"> • TCR: 0.21 • PAC: 0.69 <p>2030</p> <ul style="list-style-type: none"> • TCR: 0.23 • PAC: 0.72 <p>2031</p> <ul style="list-style-type: none"> • TCR: 0.24 • PAC: 0.75
<p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>Anticipate a 4% increase in budget for this program for the 2032-2035 period, depending on program performance. High demand for the program has resulted in incentives running out mid-year. Moving forward, a combination of lower incentive levels and increased budget will allow for program continuity. Given state gas bans on new gas appliances after 2030, as existing stock of gas appliances reaches their end of useful life, demand for incentives to replace gas equipment with the state-mandated high efficiency electric equipment will be more desirable and ensuring a just transition for equity target participants.</p>	<p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Homeowners • Aggregators/ Contractors • Local Installers • Manufacturers • Local partner organizations (utilities, CCEs, economic development, CBOs, agencies, etc.)
<p>High-level description of delivery workforce including necessary scale and its risks:</p> <p>The program relies on a network of contractors to serve as aggregators and deliver projects directly to customers. There is a preference for both local and regional contractors, however, contractors outside of the region are also able to participate in the program. Several risks may affect the ability of the delivery workforce to perform at the necessary scale. These include low engagement from local contractors, contractors that are unable to meet local demand, contractors that do not create the expected pipeline of projects (low demand from residential customers), contractors with tight operational budgets unable to incur pay for performance risks in an NMEC market, and contractors that are not fully trained to meet the goals of the program, such as installing heat pump water heaters.</p>	
<p>Near-term Program Output(s) (1-4 years)</p> <ul style="list-style-type: none"> • Install EE equipment in 10,000 single family homes over this four-year period. 	

- Achieve 15,083,322 kWh savings
- Achieve 1,602,786 therm savings
- Cultivate a network of over a hundred contractors actively submitting EE projects in the tri-county region.
- Ensure program yields optimal total system benefit whilst serving a majority of equity target participants. Employ a data-driven approach to improving program design based on EM&V findings.
- Increase program awareness.

Long Term Outcome (5-10 years):

- Foster a strong network of over a hundred contractors that are actively submitting single-family residential EE projects in the tri-county region. This network is also consistently engaging in 3C-REN workforce development opportunities and demonstrates commitment to continuous improvement of project quality for customers. The 3C-REN contractor network serves as an example of a successful contractor community for the state and beyond.
- Implement a highly efficient, cost-effective program that sets a gold standard for optimal total system benefit whilst serving a majority of equity target participants, unable to be served by any other program administrator.
- The program has widespread regional brand recognition with all market actors as a ratepayer-funded program that empowers homeowners, especially equity target participants, to live in safer, more comfortable, and energy efficient homes.

Does this program interact with other programs in this PA portfolio? If so, describe:

Yes, 3C-REN offers two NMEC programs (Single Family and Commercial) that share the same implementer, and support aggregators participating in both markets. Due to similar measurement methods and similar equipment installed across markets, best practices are regularly shared through the programs. 3C-REN also offers a multifamily home energy savings program, which incentivizes upgrades in multi-family properties, thus benefitting a significant population of renters. 3C-REN's WE&T and C&S programs have training opportunities and coaching services that complement the maintenance aspects of the projects completed in this single-family residential program. Program teams are creating pathways to ensure participating contractors benefit from 3C-REN's resource, training, and codes and standards programs to ensure wraparound benefits to contractors and quality service to the customers they serve.

Program Metrics and Indicators (KPIs):

For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.
Select metrics include:

- First year annual kW gross and net
- First year annual kWh gross and net
- First year annual Therm gross and net
- CO2-equivalent of net annual kWh savings

Unique value metrics:

- Percentage of Jurisdictions with installed SF HES project
- Percentage of fuel substitution SF HES projects

Does this program utilize Integrated Demand Side Management (IDSMS)?

Multi-DER IDSMS

Link to Existing Implementation Plan, if existing:

[Implementation Plan](#)

TCR- WET-001 BUILDING PERFORMANCE TRAINING

Program Name: Building Performance Training		
Program ID: TCR-WET-001 New / Existing: Existing Expected Program Duration: 2019 - onwards		
Portfolio Segment: Market Support	Program Implementer Type: REN	Third-Party Program Implementer (applicable to IOUs only): Not Applicable
Applicable Sector: Cross-cutting		Customer Group(s): Existing building professionals, particularly HVAC contractors, electricians, and plumbers, as well as hard-to-reach (HTR) workers and those identified as living in disadvantaged communities (DACs), and students
Sector Challenges: 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 As policy drives decarbonization solutions like heat pumps, lack of familiarity requires new educational offerings		Sector Opportunities (Expected Outcome(s)): Work with community partners to develop and provide broader levels of outreach and training As trades experience retiring expertise, build capacity and provide resources for trades training partners in the tri-county region Engage existing building professionals (architects, engineers, real estate) to keep their skills current Coordinate with building professionals to explore career entry points, and develop a worker and project pipeline for high-performing buildings Explore expanding certification and upskilling opportunities Operationalize to connect participating contractor base to 3C-REN incentive offerings Expand Spanish language offerings to target audiences.
Brief Program Description: (Including customer target, program strategies employed, expected program outcome): The Building Performance Training delivers technical trainings and certifications focused on high-performance buildings. The program supports building professionals and those seeking		

<p>career pathways in decarbonization and energy efficiency as it relates to 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 existing professionals, particularly HVAC contractors, electricians, and plumbers, as well as hard-to-reach (HTR) workers and those identified as living in disadvantaged communities (DACs), and students.</p>	
<p>Known Equity Concerns in the Selected Markets (if applicable):</p> <p>There are non-English speaking building and construction professionals and entry-level workers who reside in the region. Limited time and financial resources for contractors to invest in upskilling. 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.</p>	<p>Proposed Solutions to Equity Concerns (if applicable):</p> <p>Diversify training and outreach methods by providing training and outreach activities through different platforms (in person, online, etc.) at different times to accommodate various schedules. Expand translated offerings, personalized outreach, and explore potential learning incentives, grants, and stipends. 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.</p>
<p>Intervention Strategy: Technical Assistance</p>	<p>Delivery Type: Not Applicable</p>
<p>Measurement and Verification Methods: Not Applicable</p>	<p>Program Total System Benefit (TSB) for 2028-2031: Not Applicable</p>
<p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$2,553,402 • 2029: \$2,616,486 • 2030: \$2,730,700 • 2031: \$ 2,796,467 	<p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031: Not Applicable</p>
<p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>Anticipate an increase in budget for this program for the 2032-2035 period, dependent on program performance.</p>	<p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • 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
<p>High-level description of delivery workforce including necessary scale and its risks: Partnering with central coast professionals with years of experience in the construction industry working as contractors, planning consultants, ECC 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.</p>	
<p>Near-term Program Output(s) (1-4 years) Build the capacity of 10 local partners to conduct outreach to the tri-county workforce, including disadvantaged and hard-to-reach communities.</p>	
<p>Long Term Outcome (5-10 years): 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.</p>	
<p>Does this program interact with other programs in this PA portfolio? If so, describe: 3C-REN's WE&T and C&S programs have training opportunities and coaching services that complement the maintenance aspects of Single-family, Multifamily, and Commercial programs. Program teams are creating pathways to ensure participating contractors benefit from 3C-REN's resource, training, and codes and standards programs to ensure wraparound benefits to contractors and quality service to the customers they serve.</p>	
<p>Program Metrics and Indicators (KPIs): For a full list of program metrics please see Appendix B, Tabs 17 and 18.1.</p> <p>Select unique value metrics include:</p> <ul style="list-style-type: none"> • Number of events hosted by BPT each year • Percent of unique attendees who attended two or more BPT events in one year • Number of in-person BPT events 	
<p>Does this program utilize Integrated Demand Side Management (IDSM)? Multi-DER IDSM</p>	<p>Link to Existing Implementation Plan, if existing: Implementation Plan</p>