

2019

# *3C-REN*

## Residential Implementation Plan



COUNTIES OF SAN LUIS OBISPO, SANTA BARBARA & VENTURA

3C-REN | TRI-COUNTY REGIONAL ENERGY NETWORK

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## CONTENTS

Program Budget and Savings Information	3
1. Program Description	4
2. Program Delivery and customer Services	5
3. Program Design and Best Practices	10
4. EM&V	12
5. Pilots	12
6. Additional Information	12
6.a Design of Incentives to Customers or Implementers	12
6.b Lighting Technologies	14
6.c Workforce Issues and Quality Standards	14
6.d Metrics Referenced in D.15-10-028	15

## PROGRAM BUDGET AND SAVINGS INFORMATION

The 3C-REN Residential Direct Install program has the below projected program budget and savings information for 2019:

### A. PROGRAM INFORMATION

- Program Name: Residential Direct Install (RES DI)
- Program ID: TCR-Res-001

### B. PROJECTED PROGRAM BUDGET

- 2019 RES DI budget: \$2,896,876

### C. GROSS IMPACTS

Projected impacts for 2019 include:

- Forecast kWh: 525, 645
- Forecast kW: 320
- Forecast therms (mm): 0.06

### D. PROGRAM EFFECTIVENESS

- Projected Total Resource Cost (TRC): 0.19
- Program Administrator Cost (PAC) 0.20

### F. MARKET SECTOR OR SEGMENT THIS PROGRAM IS DESIGNED TO SERVE:

- Residential Single-Family HTR
- Residential Multifamily

### G. PROGRAM TYPE

Primary Program Type	Yes	No
Non-resource		x
Resource acquisition	x	
Market transformation		x

### H. INTERVENTION STRATEGIES

Primary Intervention Strategy	Yes	No
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Upstream		x
Midstream		x
Downstream	x	
Direct Install	x	
Non-resource		x

## 1. PROGRAM DESCRIPTION

The 3C-REN residential direct install (RES DI) program fills a gap in current Investor Owned Utility (IOU) offerings and deliver direct install (DI) measures that target hard-to-reach (HTR) residential customers. The RES DI program targets renters and owners of single family and multifamily properties, and Disadvantaged Communities (DACs) in Ventura, Santa Barbara and San Luis Obispo Counties, offering a single, unified program to regional residents. 3C-REN will partner with local non-profit, “energy service providers” (e.g. Community Action Partnerships, or CAPs), who currently deliver income based programs such as the Energy Savings Assistance (ESA), Middle Income Direct Install (MIDI), and Low-Income Home Energy Assistance Programs (LIHEAP) to leverage their experience and infrastructure to provide 3C-REN program services to a broader audience than they currently serve. The RES DI program seeks to achieve the following goals:

- Increase the number of HTR residents that have access to affordable energy upgrades and the benefits associated with making those upgrades, including reduced energy use, bill savings, and increased health, comfort, and safety.
- Provide a pathway for HTR residents to achieve deeper energy savings by providing the opportunity to bundle no cost DI measures with copay upgrade measures that will provide increased energy savings.
- Provide energy and behavior change education that will result in increased energy savings and reduce the likelihood of the “rebound effect”.
- Increase the number of HTR residents that take advantage of water saving or renewable energy programs (e.g. MASH, SASH) through cross promotion efforts.
- Establish a long-term relationship with property owners through knowledgeable Energy Advisors who can help owners achieve deeper energy savings over time as they are able to implement them.
- Advance the skills of existing energy service providers by providing hands-on, in the field training opportunities for their staff and contractors resulting in increased quality assurance and the development of career pathways for disadvantaged workers.

## 2. PROGRAM DELIVERY AND CUSTOMER SERVICES

3C-REN’s territory includes more than 1.5 million residents and approximately 512,000 occupied housing units presenting significant energy saving opportunities even when primarily targeting HTR customers. The RES DI program is designed to deliver energy savings for the Tri-County region via direct install by partnering with local energy service providers to identify eligible customers and install energy efficiency measures that will result in energy savings and increased health, comfort and safety. The RES DI program will build on existing resources, to streamline and strengthen delivery channels, resulting in higher levels of service and access for these residents.

### RES DI CUSTOMER

The RES DI program will cover both single family and multifamily property owners and tenants. The Tri-County residential sector is 37 percent rental housing, with 45 percent of single family residences rented. This high level of rental housing means that the RES DI program must be flexible and address the needs of both owners and renters. 3C-REN program design includes the ability to iterate and incorporate lessons learned into property owner engagement and how to best build renter participation. Both audiences will be served by the direct install program, behavioral initiatives, emerging technologies, and educational programs resulting in energy savings. Owners will be able to benefit from the deeper Co-Pay measures and options for bundling those measures (renters may as well if they can get cooperation/agreement with the property owner). For multifamily buildings, 3C-REN will focus on unit measures initially, but may expand to common area measures overtime.

At the direction of the CPUC, 3C-REN intends to offer services to hard-to-reach populations across its territory, using the CPUC direction for “hard-to-reach” as defined in Resolution G-3497, with the clarification as indicated in D.18-05-041 Section 2.5.3 to include disadvantaged communities (DACs) as defined by CapEPA’s CalEnviroScreen. HTR eligibility is determined by meeting a certain eligibility threshold across the following characteristics: geography, languages spoken, income and housing type. Notably, all of San Luis Obispo County and Santa Barbara County meet the threshold criteria for geography as they are located in areas other than the United States Office of Management and Budget Combined Statistical Areas of the San Francisco Bay Area, the Greater Los Angeles Area and the Greater Sacramento Area or the Office of Management and Budget metropolitan statistical areas of San Diego County. Therefore, 3C-REN’s program eligibility criteria will appear consistent in San Luis Obispo and Santa Barbara counties, but will have additional complexity in Ventura County.

Customer eligibility will be:

County	Single Family	Multifamily/Mobile Home
San Luis Obispo County  Santa Barbara	At least one of the following: <ul style="list-style-type: none"> <li>• Primary language spoken is other than English</li> <li>• Income – Those customers who qualify for the California</li> </ul>	At least one of the following: <ul style="list-style-type: none"> <li>• Housing Type - Multifamily and Mobile Home Tenants (rent and lease)</li> </ul>

<b>County</b>	Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA)	<ul style="list-style-type: none"> <li>● Language - Primary language spoken is other than English</li> <li>● Income – Those customers who qualify for the California Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA)</li> </ul>
<b>Ventura County</b>	<p>Located in a DAC and at least one of the following criteria:</p> <ul style="list-style-type: none"> <li>● Language - Primary language spoken is other than English</li> <li>● Income – Those customers who qualify for the California Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA)</li> </ul>	<p>Two ways to determine eligibility. Either:</p> <ol style="list-style-type: none"> <li>1. Located <u>in</u> a DAC and at least one of the following criteria: <ul style="list-style-type: none"> <li>○ Housing Type - Multifamily and Mobile Home Tenants (rent and lease)</li> <li>○ Language - Primary language spoken is other than English</li> <li>○ Income – Those customers who qualify for the California Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA)</li> </ul> </li> <li>2. Located <u>outside</u> of DAC and meeting all three criteria: <ul style="list-style-type: none"> <li>○ Housing Type - Multifamily and Mobile Home Tenants (rent and lease)</li> <li>○ Language - Primary language spoken is other than English</li> <li>○ Income – Those customers who qualify for the California Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA)</li> </ul> </li> </ol>

**MARKETING AND OUTREACH**

The RES DI program will reach customers using a hierarchy of targeted outreach and marketing approaches, relying heavily on the utilization of existing local government and community networks and the Counties’ position as trusted messengers to drive program participation. While the delivery channels may be similar, the focus, messages, and location of the effort will be unique for each HTR group. For

example, 33 percent of the tri-county population's primary language is not English. As a result, marketing strategies will be customized to particular subsets (e.g. Spanish speakers, renters).

3C-REN intends to employ the following targeted marketing and outreach strategies, presented in a general order of priority:

***Leverage Income Based Energy Service Providers Marketing and Outreach Efforts***

Approximately 33 percent of the tri-county's population have household incomes between \$50,000 and \$100,000, which is just above the eligibility for low-income programs and below the typical level of service for mainstream utility programs. Energy service providers implementing income qualified assistance programs are conducting marketing and outreach activities that regularly draw in customers who cannot qualify for income based programs but still meet the HTR definition and would benefit from 3C-REN energy services. With the deployment of the 3C-REN RES DI program, these income based energy service providers can provide an option for these customers with minimal additional marketing costs.

***Utilize Existing Communication Channels***

Targeted outreach will include utilizing the existing resources (e.g. newsletters, websites, outreach events) already being used by local community and environmental groups, property management associations, and rental housing associations. Additionally, the RES DI program will work with public agencies and programs with housing-related missions, including local government departments or agencies for housing and community/economic development to promote the program.

***Employ Neighborhood Approaches***

Using data available from the US Census, County Assessor Offices, and cities, the RES DI program will identify specific neighborhoods with the highest likely need and target them for comprehensive outreach. The goal of this approach is to achieve a level of scale and affordability by focusing on a group or neighborhood of probable customers. The 3C-REN will utilize relationships with local stakeholders and leaders and provide comprehensive education around the importance of energy efficiency and the benefits associated with participating in the RES DI program. Possible activities include working with volunteers, neighborhood associations, and community groups to conduct door-to-door outreach and to coordinate joint events, direct mails to specific zip codes, and attending and presenting at community events hosted by partner organizations such as cities and Housing Authorities. This approach will be particularly useful when targeting more rural areas that are traditionally underserved by utility programs but make up approximately 8 percent of the tri-county region's population.

***General Marketing Methods***

To support and complement the targeted activities above, the RES DI program will develop a suite of collateral for the programs targeted at key audiences including all materials in Spanish. Additionally, the program will participate and exhibit at events such as Earth Day festivals, home buying fairs, etc. Social media outlets such as Facebook and NextDoor will be used to promote the program and support educational campaigns around energy efficiency, public health, and other relevant topics. Earned media and public relations/PSAs will also help generate awareness through media impressions targeted at key audiences. When appropriate, and with careful consideration of cost effectiveness, the RES DI program may also choose to place targeted radio and print ads.

## PROGRAM DELIVERY

The RES DI Program is designed to maximize energy savings while limiting the number of visits and overall cost to the customer. To do this, 3C-REN will provide the following tools and services to HTR customers:

### ***Customer Qualification and Intake***

Once a lead has been identified, a 3C-REN Energy Advisor will determine if the RES DI program is the best choice for them or if they are better suited to an IOU or other state/federal program. The 3C-REN Energy Advisor service will be supported by energy efficiency experts, and customer service specialists that serve as an objective third-party who will be trusted and available for property owner and renter guidance on multiple issues at each phase of a project. Several critical pieces of information will be clarified: HTR qualification, if they are a renter or owner, and the kind of unit they live in - SF or MF. As part of the eligibility process, the program will coordinate with the relevant IOU to determine if the customer has already received similar services at this location in the last five years, limiting any potential for double-dipping. Once the customer is confirmed as a good candidate for RES DI, the agent will explain the program, and schedule an in-person visit. Ineligible customers will be referred to the relevant IOU or other program.

### ***Initial Site Visit, Direct Install, and Education***

Qualifying customers will receive an in-home visit from a trained Energy Advisor, employed by one of the energy service providers, who will collect information on the home, install Direct Install (DI) measures, and provide customer education on the new measures and the possibilities for additional improvements.

Ultimately, customers will have the ability to choose from a list of direct install measures, Co-Pay measures, or different bundles of measures designed to the needs of their home. Direct Install measures are low-cost, high-return measures that deliver instant energy savings. These measures are cost effective and easy to install, and installed at no charge to customers. Some Co-Pay measures and bundled measures will require a follow-up visit and payment from the customer. At a minimum, the installation of simple energy saving measures will build customer trust and interest for future engagement.

Measures installed will depend on what is appropriate for each site but could include:

Potential Direct Install Measures
LED Lighting (screw in)
HVAC Tune Up
Faucet Aerators
Low Flow Showerhead
Thermostatic Valve
Plug Load Feedback Devices
Advanced Power Strips
Smart Thermostat

Measure installation will be prioritized in line with energy savings potential, existing measures already installed on site, and with a maximum budget cap in place for total measure installation cost.

Education will focus on behavioral changes and easy actions the customer can take to reduce energy use. The program will employ digital education tools such as energy education videos that customer can watch while DI measures are being installed to reduce time spent in the home. Energy Advisors will also cross promote utility and third-party energy management tools (e.g. through Green Button) and demand response programs (e.g. SCE Summer Rate Program). Energy Advisors will also provide initial information on the opportunity for bundling no-cost DI measures with more substantial upgrade measures that will require a Co-Pay but deliver deeper energy savings.

**Energy Advisor Consultation and Co-Pay/Bundled Measure Installation**

After the initial site visit, the expert Energy Advisor will follow up with the customer by phone or email to provide more detailed information on the site-specific opportunities for more substantial upgrade measures. Using the information obtained during the initial site visit, the Energy Advisor will provide technical advice, pricing information, cost benefit analysis, information on financing options (e.g. REEL) and help customers identify a scope of work. The cost of adding these additional measures will range depending on the measures selected and square footage of the home. Upgrade options will include:

- Co-Pay measures: Single-measure upgrades will be offered to the customer at cost, with an instant discount (incentive) available up to an incentive cap. Customers will provide payment at the time of installation, and will receive the discount (incentive) at the time of payment. The program will cover the incentive costs up to a fixed cost per customer.
- Bundled measures: Bundled measures include a fixed set of measures that are more comprehensive, have a higher cost, and offer more energy savings. Customers who are interested in going further than single-measure upgrades will be offered additional incentives to install bundled measures that achieve even greater energy savings.

The design of the program recognizes that many people cannot or will not complete all of the upgrades at one time. With that in mind, the Energy Advisor can also help set a plan to install measures over the coming 1-2 years offering insights about what should be done first and what will have the greatest impact for their needs. This approach is to ensure the customer is able to participate in a journey to improve their home a way that aligns with their capacity.

Potential Co-Pay Measures
LED Lighting (hardwired)
HVAC Tune Up
Room Air Cleaner
Energy STAR appliances
Attic Insulation
Gas Storage Water Heater
Tankless Water Heater
Water Heat Pump

Although measure options are still being defined, potential options for bundling measures include:

The Smart Bundle	The Even Smarter Bundle	The Even Smarter Smarter Bundle
Lighting	Lighting	Lighting
Air Sealing	Air Sealing	Air Sealing
Insulation	Insulation	Insulation
Water Flow Controls	Water Flow Controls	Water Flow Controls
	Smart Thermostat	Smart Thermostat
	Power Strip	Power Strip
	Plug Load Feedback Device	Plug Load Feedback Device
		Duct System Service to <6% Leakage & R8 Insulation

### WE&T AND C&S OVERLAY

Some projects will be used for hands-on, in the field training opportunities led by the expert Energy Advisor that will result in increased quality assurance. This will also help the low-income providers build their staffing capacity and provide training, as well as code coaching for permitted projects. Partnering with local, non-profit energy service providers also provides an opportunity to create career pathways for disadvantaged workers as many of the crewmembers and contractors live in the disadvantaged communities that they serve.

### CONTINUED CUSTOMER ENGAGEMENT

Program staff will continue to engage with customers who may have chosen not to participate in the program to encourage future participation. Additionally, customers who did participate will also continue to be engaged to monitor energy savings achieved and to encourage further energy conservation actions. Some projects will be used to develop case studies and earned media opportunities to promote the program.

## 3. PROGRAM DESIGN AND BEST PRACTICES

The Tri-Counties have been working together since 2014 to provide residential energy efficiency financing and outreach services in support of programs offered by the IOUs, in particular the Energy Upgrade California Home Upgrade Program (HUP). 3C-REN insights and lessons learned from that work has been used to inform the RES DI program’s overall design. Further, 3C-REN has conducted a broad level of research to learn and integrate best practices from other state and national programs. 3C-REN has also been coordinating and working with the other two RENs in California to learn from their experiences to create a more effective program from the start.

The Tri-County region's service area is geographically isolated and its communities diverse, which requires a more locally-focused, on-the-ground approach towards program implementation that cannot be offered by program implementers outside of the region. The 3C-REN's approach to reaching customers through utilization of existing local government and community networks, with customized message for each HTR group is a best practice that will be critical to program uptake.

Based on 3C-REN's experience, local customers want simplicity and accessibility when considering making energy upgrades and often abandon the idea of making improvements when confronted with the complexity and cost of programs such as HUP. Customers also want to experience some of the benefits associated with making energy improvements before investing larger amounts of capital. The RES DI program's approach of coupling education, technical support, no-cost and Co-Pay upgrade options strikes the right balance between addressing customers' needs and meeting energy savings goals.

The 3C-REN RES DI program strives to address the following common market barriers that may prevent HTR customers from implementing energy efficiency measures:

***High Upfront Cost of Energy Efficiency Improvements***

Most customers are not willing to spend the amount required to participate in programs like Home Upgrade, especially HTR. Res DI integrates assessment and DI measure installation with potential for expanded measures quickly at an affordable cost.

***Lack of program information and support for non-English speakers***

More customized marketing and outreach that are sensitive to language and cultural differences. Leverage word-of-mouth information sharing about programs and resources that are already common in these communities.

***Lack of understanding and value of energy efficiency and non-energy benefits.***

Energy Advisor to illustrate issues with homes and provide clear approaches to improve the home while also outlining customer benefits. DI gives a taste of the benefits and leads to more interest in deeper energy measures.

***Difficult to engage and achieve energy savings with renters and landlords (split incentives).***

No cost options designed specifically for renters allow for short-term energy savings. Long-term relationship with renter and ultimately property owner provides opportunity for deeper retrofits. Free DI measures for Renters.

***Dispersed population over wide geographic area.***

Employ neighborhood approaches to achieve scale in reach and savings. Consistent and ongoing engagement with customers allow for long-term savings throughout Tri-County Region. This can only be achieved through a local implementer. Flexible incentive structures, paired with neighborhood approaches provide affordable upgrade options, and deeper reach and engagement with rural communities.

***Confusion and lack of engagement due to silos, fragmented program delivery and multiple messages, in large part due to multiple IOUs.***

Deliver one unified program for the region. Simplified and streamlined program approaches, use of CAC and CAP and Energy Advisor allow for ease of engagement and allow cost to benefit proposition to be more clearly defined, results in higher uptake and long-term involvement with energy upgrades.

## 4. EM&V

TBD

A significant part of the Business Plan’s intention is to create better access to energy efficiency program for all ratepayers, in particular hard to reach audiences and those underserved by current utility programs. The RENs’ programs will target these audiences and track success in reaching and converting outreach into actual projects. Local governments operate a variety of housing, economic development, and social programs that can be linked to energy efficiency and hard-to-serve customers either through marketing and outreach support or direct provision of services.

## 5. PILOTS

There are no pilots planned for this program.

## 6. ADDITIONAL INFORMATION

### 6.A DESIGN OF INCENTIVES TO CUSTOMERS OR IMPLEMENTERS

In alignment with the guidance offered in D.18.05.041 Section 2.2.1, 3C-REN has considered the CPUC direction. Although not all guidance is relevant for implementation in a program at this scale, the RES-DI program adheres closely to the following guidance:

Guidance in D.18.05.041 Section 2.2.1	RES DI Implementation
Incentives should generally be calculated on a net lifecycle savings basis, not a first-year savings basis, to support and align with achievement of portfolio net lifecycle savings goals.	TBD
Incentives should generally be tiered to promote increasing degrees of efficiency above code, particularly when an existing conditions baseline is used and when the direct install delivery channel is used.	The RES DI incentive structure is designed to offer tiers of efficiency upgrades that meet customers where they are, while promoting customer investment in efficient measures. The first tier provides upgrades at no customer cost, the second tier provides an incentive for single-measure upgrades, and the third tier provides greater incentives for comprehensive upgrades. See table below.

Incentives should generally be strategically targeted at commercially available products that offer higher and highest degrees of efficiency and quality, not at all above-code high efficiency products.	The RES DI program will offer incentives for a set list of measures, not all above-code high efficiency products. That said, to ensure measures are available at a price point that works for the HTR segment, the program will not limit its measure list to only the “highest” degrees of efficiency and quality, as that would increase cost and reduce participation.
Incentive structure should take into consideration the variation in barriers to efficiency upgrades faced by different customer segments, instead of being set uniformly for a measure class.	The HTR segment faces significant barriers in energy efficiency upgrades. The tiered approach of the RES DI program design enables customers at all points in the energy efficiency program to participate.
For performance-based programs, payment of customer and contractor incentives should tie, in significant part (50 percent or more), to independently verified savings performance estimated on a 12 month post-implementation period for capital projects and 24 months, if the project includes behavioral, retrocommissioning, or operational savings.	N/A

Incentives will be available in the following structure:

Incentive Type	Cost to Customer	Incentive provided by program
Direct Install	No cost to customer	Direct Install - Program pays 100% of measure and installation costs up to \$XXX
Co-Pay	Customer pays full cost of item, with an instant discount (incentive) of approx. XX% off the measure cost (total incentive not to exceed \$XX)	Incentive - Program pays XX% of measure cost, not to exceed \$XX per customer

Bundled Measures	Customer pays full cost of item, with an instant discount (incentive) of approx. XX% (total incentive not to exceed \$X,XXX)	Incentive - Program pays XX% of project cost, not to exceed \$X,XXX per customer
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## 6.B LIGHTING TECHNOLOGIES

In alignment with D.18.05.041 Section 2.2.2, RES DI does not offer incentives for CFL lighting. However, LED lighting is available through this program. In general, 3C-REN will aim to offer LED lighting through the RES DI program that exceeds the LED standards currently available. That said, in order to maintain cost efficiency while serving the HTR market, LEDs provided at no cost to the customer may not always exceed the standards of LED technology available on the marketplace.

- Direct Install measures provided at no cost: LED lighting (screw-in)
- Co-Pay measures: LED lighting (hard-wired)

## 6.C WORKFORCE ISSUES AND QUALITY STANDARDS

Although not all guidance in D.18.05.041 Section 2.2.3 applies directly to the RES DI program, the RES DI program supports workforce goals.

Guidance from D.18.05.041 Section 2.2.3	RES DI Implementation
Expand/initiate partnerships with entities that do job placement	The RES DI program design involves working with local energy providers, including CACs and CAPs, that support trainees with job placement opportunities.
Require placement experience for any new partners in the workforce, education, and training (WE&T) programs and new solicitations	N/A
Require “first source” hiring from a pool of qualified candidates, before looking more broadly, beginning with self-certification at the beginning	TBD
Facilitate job connections, by working with implementers and contractor partners, and utilizing energy centers	The RES DI program partners with local, non-profit energy service providers also provides an opportunity to create career pathways for

	disadvantaged workers as many of the crewmembers and contractors live in the disadvantaged communities that they serve.
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## 6.D METRICS REFERENCED IN D.15-10-028

The Residential DI program aims to track the below metrics for 2019:

Intervention Strategy	Market Effect Metrics	Indicators
Build trust and interest in deeper energy savings over time.	Increase participation in 3C-REN programs  Project conversion to bundled measures	<ul style="list-style-type: none"> <li>● Number of customers receiving outreach attempts</li> <li>● Number of program inquiries</li> <li>● Number of participants/year</li> <li>● Number of HTR households served</li> <li>● Number of sites receiving Direct Install measures               <ul style="list-style-type: none"> <li>○ Energy savings from Direct Install measure sites</li> </ul> </li> <li>● Number of sites installing Co-Pay measures               <ul style="list-style-type: none"> <li>○ Energy savings from Co-Pay measure sites</li> </ul> </li> <li>● Number of sites installed bundled measures               <ul style="list-style-type: none"> <li>○ Energy savings from bundled measure sites</li> </ul> </li> <li>● Number of conversions from DI to Bundled projects</li> </ul>