

Using Contractor Engagement Data to Improve Program Efficacy and Equity

Kate Rathbun, Frontier Energy

ABSTRACT

Contractors are core actors in helping California reach its aggressive decarbonization and energy efficiency goals. Maintaining an active and motivated contractor base is key to ensuring programs deliver deep energy savings and better reach traditionally underserved customers.

Frontier Energy manages contractors for a statewide residential and commercial energy efficiency financing program. Since 2017, these programs have financed \$30 million in energy efficiency projects, and enrolled over 500 general, HVAC, and plumbing contractors. Using five years of contractor participation data, a comprehensive analysis was conducted to better understand the typical contractor journey in a program. The analysis helped define three key points: a contractor's potential for high participation; best practices for outcome-oriented targeting and outreach strategies; and effective partnerships.

Introduction

Frontier Energy has served as the contractor manager for two financing programs serving the residential and commercial sectors: GoGreen Home Energy Financing and GoGreen Business Energy Financing. These programs are administered by the state to provide affordable financing for energy efficiency measures and non-energy needs (for example, landscaping or cabinetry). Contractors drive program success by promoting the financing to customers seeking upgrades. In return, these programs support contractor work in multiple ways: by offering project prefunding or payment immediately after the loan is approved; providing public listings and marketing support so customers can easily find their services; and providing legitimacy by having enrollment credentials with a state-sponsored offering.

After five years of activity, a comprehensive data analysis was performed to determine what methods best kept enrolled contractors interested and participating. While the Frontier Energy team could inform activities qualitatively from a decade of contractor management experience, there had not yet been an opportunity to systematically assess strategies and offer data-driven recommendations. The past program data, along with its continuity, offered the unique opportunity of having comprehensive participation data inform future strategies. In spring 2021, the team uses this opportunity to better understand the typical contractor participation timeline, traits, needs, and efficacy of account management and marketing tactics. The goal was to apply proven strategies to the financing programs to promote future success.

Frontier Energy views contractor management in two parts: account management and marketing. Account management encompasses enrollment, ongoing account tracking and project support. Marketing includes lead recruitment, education and training, engagement, and targeted outreach. The analysis primarily focused on marketing activities, some of which has crossover with account management. These program activities will be described within the report, and findings are focused into three key areas:

- Program historical trends and background
- Areas analyzed and results
- Best practices and strategy transferability

It is intended for findings in this report to help inform approaches for contractor engagement in 2022 and beyond.

Background

Both the GoGreen Home and GoGreen Business aimed to make energy efficiency upgrades more accessible to customers through affordable financing. GoGreen Home customers have the option to use 70% or more of their loan for qualified energy efficiency measures. The remaining 30% can be used for non-energy costs. This allows customers to have multiple needs met under one loan. By using a loan loss reserve, participating financing companies have the security of program funds to offer attractive rates and can pay contractors within 24 hours of project approval. With GoGreen Home, participating contractors offer their customers access lower interest rates for their energy efficiency improvements.

Contractors are key to selling energy efficiency measures and proposing the use of financing to customers, and it is important to vet their experience through training and enrollment into the financing programs. Contractor participation is encouraged by the straightforward enrollment and project completion process. Once trained and enrolled, each contractor company is assigned a personal account manager from the contractor support team. This team serves multiple purposes: providing contractor training and education, answering questions about projects or participation, ensuring all projects are compliant with state building code regulations, and providing marketing materials. Contractors receive ongoing marketing communications, either in the form of one-off emails, monthly newsletters, or direct calls from account managers.

Frontier Energy took over as contractor manager for GoGreen Home in 2017, when it had approximately 100 enrolled contractors. Through recruitment, partnership development, and outreach, the enrolled base grew to over 500 contractors by 2021. Under the same program umbrella, commercial financing launched in 2019 just before the COVID-19 pandemic. This analysis was conducted a year and a half into commercial financing's lifetime, resulting in insufficient data for many of the segments explored (mentioned where applicable).

For the purposes of the analysis, data was drawn from October 2017 through December 2020. Results and application of lessons learned are described in [Applying Results](#).

Contractor Participation Timeline

Account management includes all activities used to support contractors through program participation, and encompasses enrollment, ongoing account tracking and project support. Easily accessible, high-touch contractor management has been key to ensuring project completion. Each enrolled contractor company is assigned an account manager to quicken and personalize support.

Having the mandatory onboarding training as the first required step to enrollment prevents Frontier account managers from having to handhold contractors through program introduction and processes. However, once this step begins, constant communication is critical to maintaining a contractor's attention. 78% of trainees typically move on to enrollment in one to three weeks.

Customer journey mapping is a common practice marketers use to envision the end-user experience with a program or product. Understanding timing, conversion points and pain points allows for more specific strategizing and targeting. In this case, the "contractor journey" was at the center of this analysis, which helped map the typical participation lifespan and critical points.

Based on the process described above, Frontier Energy determined five stages of participation using the training completion date, enrollment date, date of first project, and date of last project.

- Stage 1: Awareness – Contractor is known to be aware of the program either through a call or email to the support center, sign up as a lead to the newsletter or training, or indication of referral from a marketing campaign.
- Stage 2: Conversion – Contractor has completed training and enrollment.
- Stage 3: Consideration – Contractor is actively engaged with program through eblast readership and is looking for potential projects. This is the period before their first project.
- Stage 4: Active Period – Contractor is completing projects or actively engaged with the program (emailing/calling support team or opening ebasts frequently).
- Stage 5: Disengagement – Contractor has not submitted a project in more than a year or has never submitted a project after 1 year of enrollment.

Leveraging these dates for all enrolled contractors resulted in the timing below:

Table 1. Financing Program Participation Period Length (Weeks)

	Minimum	Median	Maximum	Average
Stage 1: Awareness	<i>Insufficient data to determine.</i>			
Stage 2: Conversion	0	1	42	3
Stage 3: Consideration	2	20	95	29
Stage 4: Active Period	0	115	217	110
Stage 5: Disengagement	13	140	246	139

While it was difficult to collect data to determine a residential contractor's period of awareness before interacting with the program, they would complete training and enrollment in an average of 1-3 weeks. In the financing program, some contractors were able to bring in projects immediately, while others took upwards of 110 to 217 weeks (2.2 to 4 years). Overall, the average participation lifetime for a contractor is expected to be around 139 months (2.7 years). The longest active period for a single contractor company in the residential program was 246 weeks (4.7 years). There was inadequate participation data to determine a journey for commercial contractors.

Participation Behavior

To enhance targeting and marketing strategies, contractors were defined by time of active participation and project completion volume. High potential contractors (HPCs) and high-volume contractors (HVCs) were defined as shown in Table 2. Project completion numbers for HPC and HVC are reevaluated annually based on project completion volume for each group in the previous year. At the time of the analysis, a residential HVC would have needed to complete

ten or more projects within the past calendar year, and an HPC would have needed to complete between five and ten projects within the past calendar year. Due to the commercial program's infancy, there was not enough participation data to determine HPCs, HVCs, or project completion goals, noted in Table 3.

Together, HPCs and HVCs are considered a championing subset of the enrolled contractor base. The programs aim to develop more of these contractors each year through relationship-based, high-touch account management and marketing that keeps them involved.

Table 2. Residential Program Project Completion Goals by Year

	2017	2018	2019	2020 >
HVC	4+	5+	10+	10+
HPC	2+	3+	5+	5+

Table 3. Contractor Status Definitions

DEFINITION	Residential Program	Commercial Program
High Potential Contractor (HPC)	Contractors who have completed Y or more projects within the past twelve-month timeframe	N/A
High Volume Contractor (HVC)	Contractors who have completed X or more projects within the past twelve-month timeframe	N/A
Lead	Contractor who has expressed interest but is not yet enrolled	
New	Enrolled within the last twelve months and has not yet completed a project	
Active	Completed at least one project within the past twelve months	
Inactive	Has not completed a project since enrollment, with enrollment having been twelve months earlier or more	
Disengaged	Contractors who have previously completed a project, but not within the past twelve months	

While the programs welcome ongoing growth through contractor enrollments, having a subset of contractor champions to drive a high volume of project completions each year is necessary. The Pareto Principle, or the “rule of a vital few,” specifies that 80% of consequences come from 20% of the causes; in this case, this suggests a small subset of contractors complete the majority of projects (Kiran 2017). This proves true with the residential financing program's enrolled contractor base—just 12% to 19% of all contractors submitted 80% of projects.

When targeting contractors for recruitment, how can potential HPCs and HVCs be identified? To help answer this question, the 2021 base of residential HPCs and HVCs were reviewed for common traits and were found to all share:

- Having more staff involved with the program (3 or more contacts on record)
- Being well resourced: all have robust websites, advertise financing, social media, reviews, testimonials, list certifications and credentials, mention energy efficiency, provide cost estimate tools and contact details.
- Service area: Even if a broad service area is reported, projects tend to be completed most within the immediate county or vicinity where a contractor is located.
- Newsletter engagement: On average, the company opens 64% or more of program communications received via email.

Influences Toward Participation

What motivates contractors to enroll, and what correlates with disengagement and inactivity? Through program training data, it was found that the two largest methods of hearing about the program was through an unknown email and customer referral, as shown in Figure 1 below.

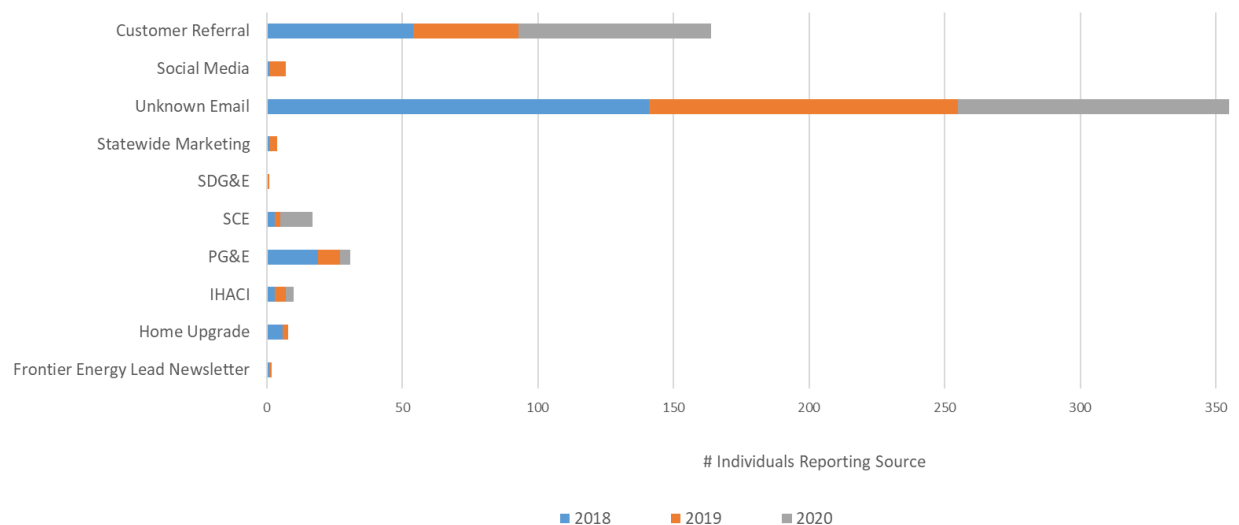


Figure 1. Where Contractors Learned About the Residential Financing

The fact the most frequent way contractors learn about the program is via email highlights the importance of email campaign communications both through the program and through partners.

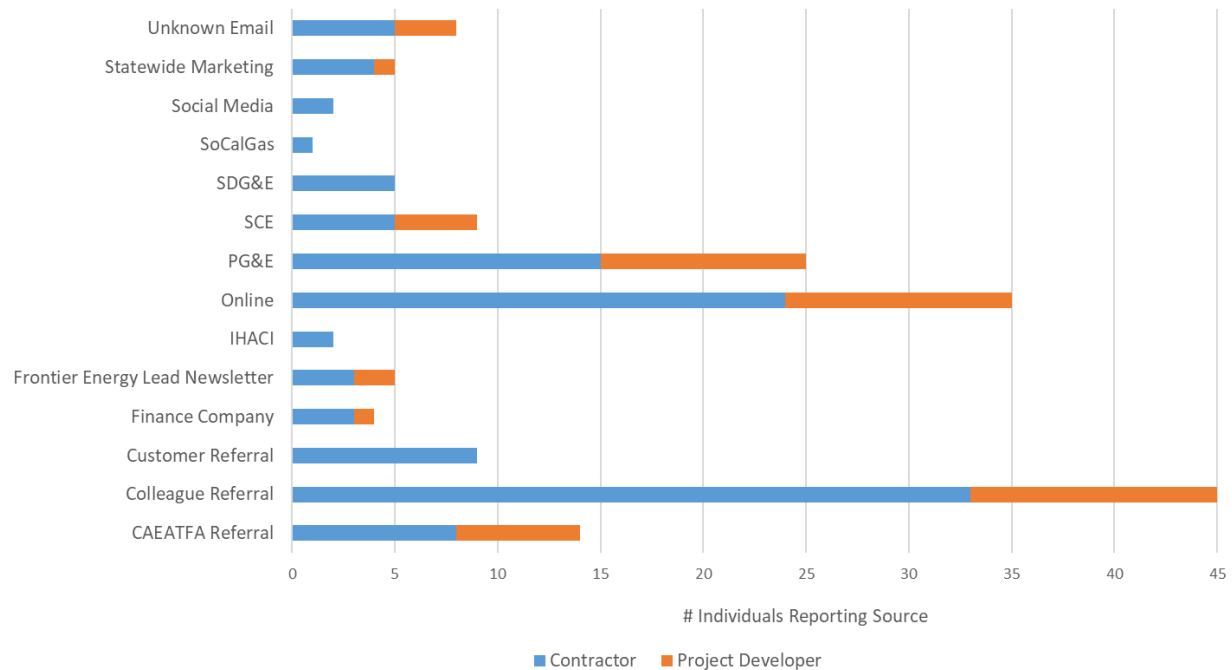


Figure 2. Where Contractors Learned About the Commercial Financing

Table 4 shows 27% of residential contractor responses reported hearing about the program through customer referrals, over 60% reported email, and 3% reported via utility. The sources of emails were not specified, but are assumed to be from the program, industry partners, or utilities.

Table 5 shows commercial contractors differed, with colleague referrals, online research, and a utility being top results. No responses indicated social media, industry events, or customer referrals as a source.

The financing programs are designed to be promoted by contractors to customers seeking upgrades. On some occasions, account managers receive feedback that a contractor enrolled due to customer requesting financing. The same data from the training survey (i.e. How did you hear about the program?) was used to infer how many contractors enroll due to customer interest or their own business interest. Only 27% of residential contractors and 5% of commercial contractors enroll in programs due to a customer referral.

Training survey responses have also been a critical source to understand which type of staff in the contractor company initially pursues the programs and decides whether to move forward. Contractors are asked what role they serve for their company and 73% of residential contractor trainees report to be owners and managers, while 15% are office and administration support. None are the technicians who work directly on installations. For the commercial sector, owners and managers make up over 50% of trainees.

Table 4. Company Position of Contractor Trainees by Program

	Residential Program	Commercial Program
Owner/Manager	73%	59%
Sales	8%	26%
Technician/Installations	0%	10%
Office/Administration	15%	31%
Other	4%	17%

External Events and Impacts on Participation

Understanding the impacts on program activity by formerly available incentive programs, other popular financing programs, and COVID-19 can inform how best to layer and leverage financing offerings with other programs in the energy efficiency landscape. Figure 3 shows a general timeline of events that may have impacted contractor's search for financing options and incentives.

All incentive program closures resulted in higher-than-average enrollments in the residential financing program within three months of closure. The Property Assessed Clean Energy (PACE) financing program closure and easing of COVID-19 restrictions in May 2020 resulted in a near-doubling of projects. It was also found that the number of projects pairing financing with incentives decreased from 50% in 2016 to 9% in 2021. Fewer contractors are submitting or relying on incentives to pair with a financed project (Figure 4).

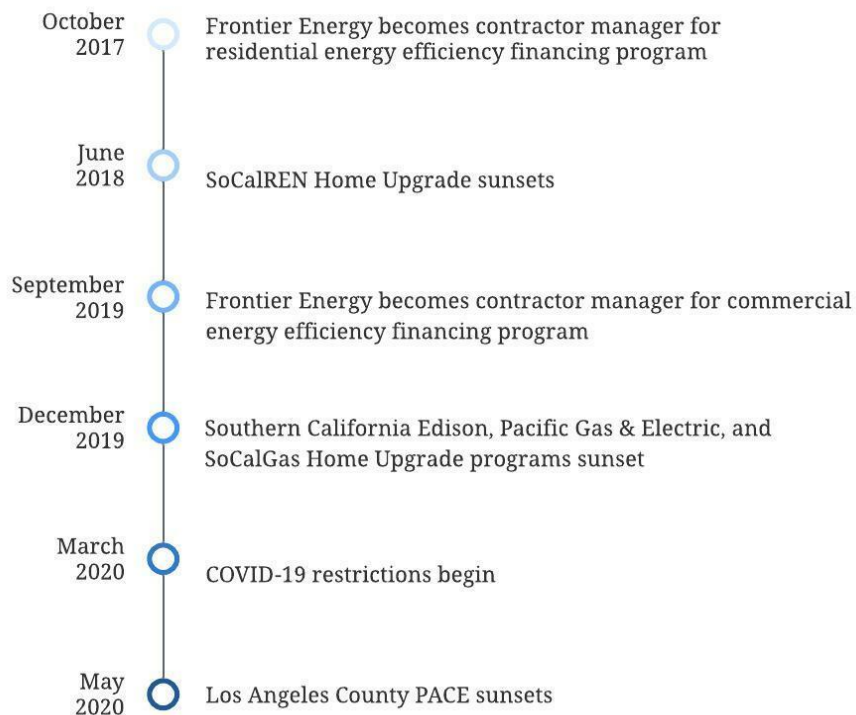


Figure 3. Timeline of Key Events (October 2017 to December 2020)

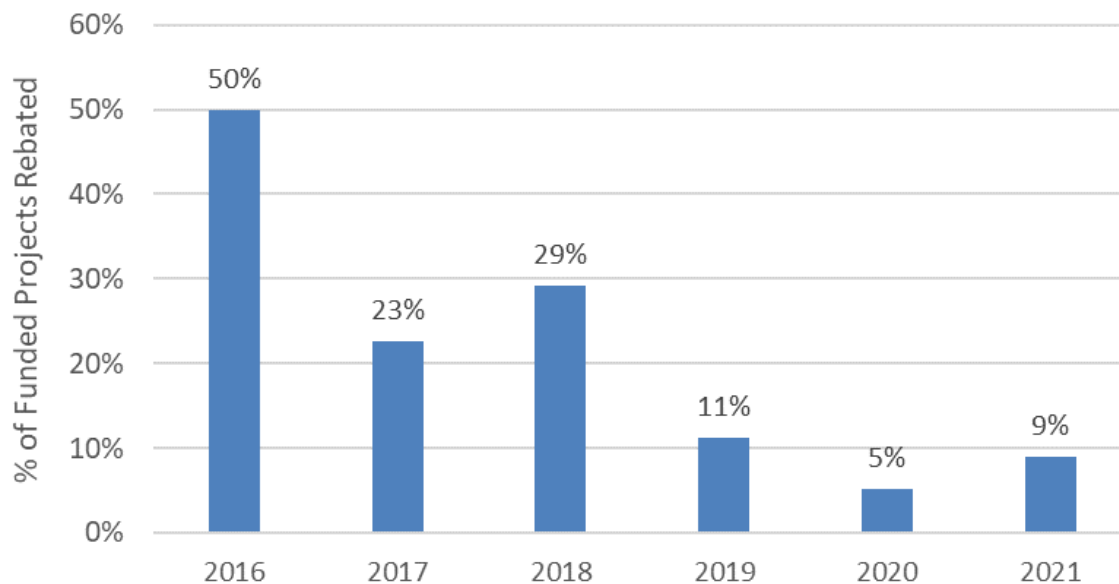


Figure 4. Residential Financing Projects Paired with IOU Rebates by Year

Impacts of Marketing on Participation

Targeted Outreach

Depending on program needs, account managers will reach out directly by phone and email to communicate updates or gather feedback. Occasions where this has been done include when forms are updated, regulations or energy efficiency measures change, or when the program needs input for improvement.

Targeted contractor calling campaigns are historically high cost with low results. As a result, they are used sparingly. For example, a typical campaign recruiting 300 residential contractors is estimated to take 75 account manager hours, or 15 minutes per contact. This is the average time for an initial call, follow-up email, and recording the attempt in the CRM. On average, ten percent or less conversion would occur from lead to enrollment (30 contractors). On average, up to five of these contractors would result in projects within the first calendar year of enrollment.

Automations can ensure every contractor receives a stream of communication and a relatively quick enrollment period with low drop-off. However, because this stream of communication falters after the enrollment process, a contractor may or may not complete their first project for months after enrolling. Building in additional check-ins and lines of communication should be considered if project completion is a key goal.

Emails

Mass emails have been an affordable way to communicate updates and keep the program top of mind for leads and enrolled contractors alike. For both financing programs, it was the primary tool used to conduct general or targeted outreach, and to infer overall engagement. Over

the years, email themes were tracked in in six broad categories to better understand contractor's interests and needs from a program newsletter. These categories included marketing, events, contractor support, sales/payment, program updates, and financing. Average open and click-through rates (CTR) were evaluated for each theme, shown in Table 5 and 6.

Table 5. Residential Newsletter Theme Performance

	Participating Contractors	Leads
Highest Avg. Open Rates	Marketing (42%) Events (40%) Contractor Support (39%)	Contractor Support (27%) Events (27%) Financing Highlight (26%)
Lowest Avg. Open Rates	Sales/Payment (37%) Program Updates (36%) Financing Highlight (35%)	Sales/Payment (25%) Marketing (24%) Program Updates (24%)
Highest Avg. Click Rates	Marketing (5%) Event (4%) Program Updates (3%)	Events (2%) Financing Highlight (2%) Program Updates (2%)
Lowest Avg. Click Rates	Financing Highlight (3%) Contractor Support (2%) Sales/Payment (2%)	Marketing (1%) Sales/Payment (1%) Contractor Support (1%)

Table 6. Commercial Newsletter Theme Performance

	Participating Contractors	Leads
Highest Avg. Open Rates	Program Updates (46%) Event (41%) Financing Highlight (34%) Sales/Payment (34%)	Program Updates (35%) Marketing (32%) Event (25%)
Lowest Avg. Open Rates	Contractor Support (33%) Marketing (32%)	Sales/Payment (23%) Contractor Support (21%) Financing Highlight (22%)
Highest Avg. Click Rates	Event (7%) Program Updates (6%) Financing Highlight (3%)	Program Updates (7%) Event (3%) Financing Highlight (2%)
Lowest Avg. Click Rates	Contractor Support (1%) Marketing (1%) Sales/Payment (1%)	Marketing (2%) Contractor Support (1%) Sales/Payment (1%)

As shown in Table 7, active and champion contractors make up 51% of the most engaged newsletter readers. Individual opens for every email were sorted by company, then assigned a

readership score based on how frequently any contact from the company opened an eblast. This readership score, along with project completions, was used as an overall indicator of the company's engagement. For the purposes of this analysis, companies with readership in the 85th percentile were considered to have above average readership. This means that 85% of the time, one or more of a company's staff opened newsletters each month since inception in 2018.

Table 7. Contractors in the 85th Percentile of Newsletter Readership 2018-2020

	% Active –					
	% HVC	% HPC	Not HV or HP	% New	% Inactive	% Disengaged
2018	11%	7%	33%	19%	19%	11%
2019	9%	9%	24%	21%	29%	9%
2020	9%	11%	23%	5%	32%	20%

Takeaways and Best Practices

The outcomes of the analysis were provided to the administrator of the financing programs in early 2021. Takeaways and best practices include:

- High volume and high potential contractors typically share similar traits, which can support in targeting and achieving high project completion. However, depending on location, these types of well-resourced contractors may not serve disadvantaged or hard to reach customers. Tracking service territory is key to determining potential program reach.
- Following the closure of IOU incentive programs in previous years, fewer contractors are using incentives on projects. However, qualified energy efficiency contractors will typically search for other offerings to participate in, as many are familiar names across programs.
- Easily accessible, high-touch contractor management has been key to ensuring project completion. Assign each enrolled contractor company an account manager to quicken and personalize support. Building in additional check-ins and lines of communication should be considered if project completion is a key goal.
- Emails have been an affordable way to communicate updates and keep the program top of mind for leads and enrolled contractors alike.
- The fact the most frequent way contractors learn about the program is via email highlights the importance of communications both through programs and trusted program and industry partners.
- Targeted contractor calling campaigns are historically high cost with low results. Best methods of promotion are co-promotion with other programs or utilities since those are a trusted source, rather than cold calling.

- Ensure there is one key method of collecting initial information about the contractor, such as: company name, contact name, contact title, phone, and how they heard about the program. The latter can inform when and how contractors are getting their information, and what organizations may be influential promotional partners.

It is important to note that the financing program's enrolled base may not be a sufficient contractor sample to assume results would be similar for other energy efficiency and decarbonization programs. Various programs enroll contractors, and there is no singular place to determine or validate the total amount of contractors in California that serve them.

Frontier Energy's findings have since been applied to the launch of a statewide market transformation initiative for heat pump technologies with great success. Since December 2021, the initiative has seen remarkable early success and enrolled nearly 900 contractors who completed 12,400 projects and distributed \$6.9 million in incentives. What sets the initiative apart from other incentive-only programs is the emphasis on workforce education and training offerings that prepare the market for widespread heat pump adoption. It also integrates with local and regional incentive programs, which streamlines participation and allows customers to easily layer rebates.

While it is assumed that the initiative's high incentive amounts are a key driver to early success, the impact of high touch contractor management has been put to the test. This is due to the initiative's incentive availability and participation quickly changing, along with budget. Despite incentive availability changes in early 2022, the initiative continues to see strong engagement through mass emails and ongoing contractor inquiries (phone and email) to account managers.

Addressing Equity and Reach Through Data

While administrator and program goals must be prioritized in contractor management, Frontier Energy believes that contractor data has the potential to inform how programs can better reach a key audience defined in Senate Bill 350 (The Clean Energy and Pollution Reduction Act of 2015), and supported by Senate Bill 535 (California Global Warming Solutions Act of 2006). Disadvantaged communities are those who are economically, health, and environmentally burdened through high unemployment, pollution, and incidence of disease from environmental factors (CPUC). In California, parts of the Mojave and Central Valley are most impacted (SB 535).

Frontier Energy attempted targeted outreach and recruitment campaigns for the financing programs. 100 Central Valley-based contractors were targeted based on relevant licensing and previous participation in energy efficiency programs. However, no new enrollments resulted in either offering. A new targeted research and recruitment campaign began in late 2021 working to engage brand new leads—those who had not previously participated in programs. Through research, Frontier Energy found that nine of ten companies investigated were smaller mom-and-pop shops with little web presence, and lacked those typical qualities of better resourced, high performing contractors. Moving forward, Frontier Energy intends to implement the below strategies within the heat pump initiative to explore their efficacy in improving the reach of energy efficiency and decarbonization offerings to these communities. These strategies include:

- Conducting a deeper research effort to understand the composition and availability of qualified contractors in disadvantaged communities.

- Offering non-incentive benefits to contractors looking to grow and expand their work but need support. Promote workforce education and training offerings, along with marketing and personalized account management benefits to drive their participation and growth.
- Target in-person events or trainings in disadvantaged communities, sending personal invitations to qualified contractors not yet participating.
- Host roundtables to better understand the needs of contractors within disadvantaged communities, and what communities need.
- Provide installation experience and other opportunities to disadvantaged community contractors looking to grow their experience.
- Leverage other incentive or non-incentive programs to streamline messaging, purpose, and develop partnerships.

Conclusion

Though these findings are unique to the energy efficiency financing programs which Frontier Energy served from 2017 to 2022, the best practices proposed may support contractor management and marketing in similar programs. Understanding the typical participation timeline, behavior, interests, motivators, and effectors has provided insight for improvements.

Implementers can also carve new equity pathways through this work by determining contractors within disadvantaged and hard-to-reach communities who could benefit from workforce education and training, then targeting recruitment and outreach in areas that lack skilled contractor availability. Contractors are the key to ensuring incentives are utilized and measures are installed, and they will continue to be a core partner in efforts to meet state climate goals.

References

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