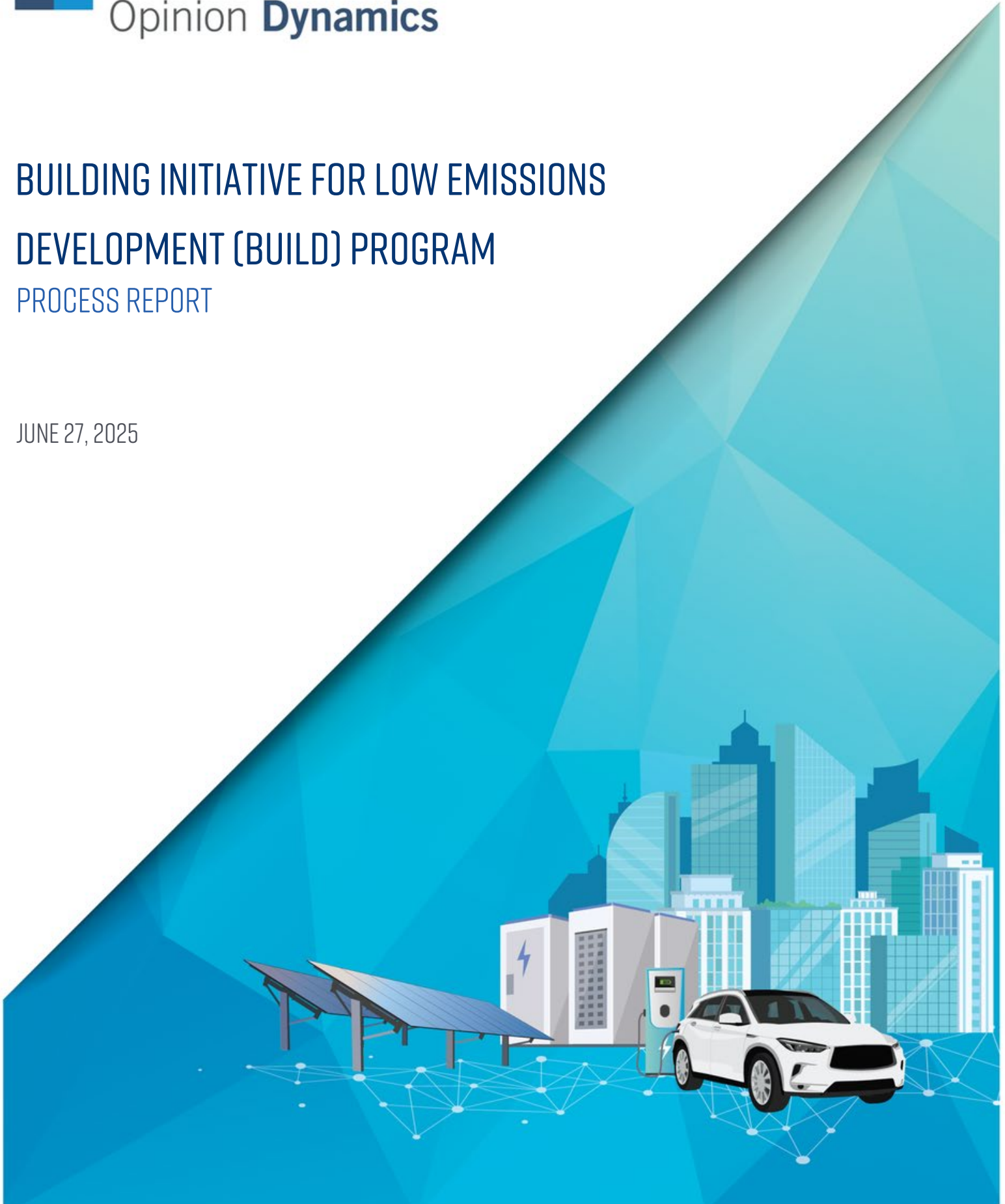




Opinion **Dynamics**

BUILDING INITIATIVE FOR LOW EMISSIONS DEVELOPMENT (BUILD) PROGRAM PROCESS REPORT

JUNE 27, 2025



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I. EXECUTIVE SUMMARY

Opinion Dynamics is the developmental evaluator for the Building Initiative for Low Emissions Development (BUILD) Program, utilizing the Whole Independent Systems Evaluation™ (WISE™) approach.¹ In this final report, we provide an update and share the findings from the ongoing process evaluation of the BUILD Program.

The BUILD Program is an \$80 million program that aims to put California on a path to zero-emission homes by encouraging the design and construction of all-electric buildings. This program incentivizes the construction of new residential housing that utilizes near-zero-emission building technologies, significantly reducing greenhouse gas (GHG) emissions compared to traditional mixed-fuel buildings. Additionally, the BUILD Program offers standalone technical assistance focused on all-electric and high-efficiency design support and program application support. The BUILD Program focuses on the affordable housing market.

This process evaluation report is based on program staff interviews, program materials review, periodic status calls, participant interviews, and a program tracking data analysis. The evaluation team contacted 43 individual companies that had achieved a Design or Construction reservation through the BUILD Program. These companies were applicants for the BUILD Program between June 2022 to November 2023. In total, we interviewed 22 developers representing 32 projects; three interviewees representing four projects were interviewed to discuss their reasoning behind exiting the BUILD Program, and one interviewee was a third-party energy advisor working with multiple developers applying for a reservation through the BUILD Program.

The evaluation team offers the following findings and recommendations based on the process evaluation results.

- **Finding:** The BUILD program does not appear to be influencing participants to build all-electric residential housing. When asked what they would have done in the absence of the BUILD program, most respondents (18 of 19) would have built all-electric projects regardless of BUILD participation. Only ten of the 88 approved applicant projects were new adopters, three of whom are respondents covered in this report. All three of these respondents stated they would have built all-electric projects regardless of participation.
- **Recommendation:** BUILD, or other similar residential new construction decarbonization programs, should explore ways to focus the program on specific building types, regions, and project types that still face significant impediments to electrification at scale. The implementation team should identify specific market actors or projects where program technical and financial support are more likely to drive decision making, such as projects with common electrification design challenges, knowledge gaps amongst design professionals or tradespeople, electric technologies that are especially challenging to deploy, etc. Next, program support could then be tailored to remedy such challenges via targeted marketing, training, support materials or incentives that are designed to make electrification projects faster and easier for even experienced design teams. BUILD could augment the online Electrification Knowledge Hub with these new materials that help design teams and builders anticipate and overcome problems, as well as provide hands-on support if resources permit them.

BUILD could consider expanding the New Adopter award to serve single family developments or repurpose incentive funds to focus on buildings or geographic areas that are difficult to electrify. The BUILD Program Time 1 Market Study² found the single-family affordable housing market segment had the lowest percentage of respondents with experience building all-electric new construction and this could present an opportunity for BUILD to increase participation in the New Adopter award.

Furthermore, the program could repurpose funds to support developers and design teams who have previously built all-electric, but are now attempting new types of buildings, developments in geographic areas that are lagging in all-electric construction projects. The Time 1 Market study found the multifamily affordable housing

¹ [WISE - Opinion Dynamics](#)

² https://pda.energydataweb.com/api/downloads/4111/BUILD%20Time%201%20Market%20Study%20Report_FINAL.pdf

market segment had the highest rate of respondents with all-electric new construction experience, but these market actors still likely face challenges in building all-electric buildings in specific scenarios.

- **Finding:** The BUILD Program does appear to be influencing projects to become more efficient than they would have been in the absence of the program. Over one-third of respondents (7 of 18) reported BUILD influenced their projects to be more energy-efficient or produce lower GHG emissions. In addition, the majority of respondents (12 of 19) said their designs would have been less efficient in the absence of the BUILD program. Six stated their projects would have been designed to be slightly above code, while six would have only met baseline code compliance.
- **Recommendation:** BUILD should consider providing an incentive for very early engagement with technical assistance, such as in design development or schematic design, and ramping up technical assistance for projects that are not pursuing an incentive. Early engagement with technical assistance may increase the opportunity for the TAP team to further improve building design and performance by allowing for deeper and more substantial changes to the design. Increasing engagement with projects not pursuing incentives allows design teams and developers to access this support without needing to engage in the incentive application process.
- **Finding:** Although most respondents said they felt more knowledgeable about all-electric residential building design after participating in the BUILD Program, respondents reported mixed results on applying what they learned from BUILD participation to other projects. This was true regardless of the stage of project completion participants were in when they joined the program. One-third of respondents applied what they learned to their other projects, one-third used the knowledge to inform future BUILD applications with other projects or coworkers, and one-third could not apply what they learned to other work.
- **Recommendation:** Explore ways to increase knowledge transfer and support continued learning, such as post-project debriefs or sponsoring “lunch and learn” talks about BUILD at the firms that have completed their first BUILD project. To the extent not already covered, consider having technical assistance emphasize the practicality of all electric new construction, specifically preempting common concerns about upfront cost, impact on the grid, and impact on tenants bills, all of which were identified in the BUILD Time 1 Market Study as areas of concern regarding all-electric new construction.
- **Finding:** Respondents reported using an average of four funding sources per project in addition to BUILD funding. These included county, state, and local government funds and loans; federal, state, and city tax credits; California Department of Housing and Community Development (HCD) funds; and private grants. While most non-BUILD funding sources had different requirements than BUILD, respondents noted their applications were more competitive when applying to non-BUILD funding sources when projects demonstrated higher energy efficiencies.
- **Recommendation:** Consider additional coordination with other funding sources to foster broader awareness of BUILD while avoiding redundancy with other funding source requirements. Encourage applicants to leverage BUILD to strengthen their applications to other funding sources by, for example, improving equipment efficiency. Increase publicity activities for BUILD materials that can help developers fund their projects, such as the BUILD incentive layering overview.
- **Finding:** BUILD webinars were the most common way applicants initially learned about the program. However, interview respondents indicated a preference for email communication to receive information about the program. Of the three respondents who were carrying out their first all-electric project, two learned of BUILD through referrals and one through email.
- **Recommendation:** Consider tailoring outreach strategies to focus webinars on general awareness and information about the program while using targeted email campaigns to maintain attendees' engagement.
- **Finding:** Respondents expressed high satisfaction with the Technical Assistance Provider (TAP) team. All 14 respondents with material interactions with the TAP recommended TAP to other applicants. Respondents

appreciated support in technical understanding, incentive maximization, and best practices for all-electric residential building design.

- **Finding:** Respondents consistently reported that the BUILD application was the most challenging aspect of participation. Nearly all respondents (13 of 15) highlighted the application correction process as time-consuming and documentation-heavy, and most respondents (13 of 18) reported some difficulty completing the BUILD incentive application. Respondents reported a lack of clarity of the requirements and required documentation of the incentive application and a lack of clarity on which aspects of the application the TAP team could assist with, as well as frustration with the TAP team's inability to provide answers to certain questions. Further, respondents stated the application required significant administrative costs and time to complete the application, especially compared to the potential award amount, and that multiple rounds of corrections were often required, which respondents felt could have been rolled up into fewer rounds of corrections.
- **Recommendation:** Consider evaluating the application and correction process for simplification and provide clearer guidance or templates to reduce the documentation burden. To the extent possible, and with the resources available, accelerate the review and revisions process. For example, take steps to eliminate the need for multiple rounds of review by ensuring the first review is comprehensive and subsequent reviews do not identify issues that could have (and should have) been identified in the initial application review.
- **Finding:** Three respondents did not continue their BUILD participation because program requirements were not clearly communicated until their projects were too far along in the construction phase to adjust their plans. Two of the three respondents joined the program during the construction phase but reported participating in the program for six months (1 respondent) to a year (1 respondent) before learning about the requirement that caused them to discontinue their participation; the third respondent joined the program while in the design development phase. The specific requirements were photovoltaic (PV) allocation requirements for tenants and prevailing wage requirements were not disclosed early enough for developers to adjust plans accordingly.
- **Finding:** Almost half (15 of 28) of the projects entered the program during the construction phase, when major design changes are difficult or impossible to implement cost-effectively.
- **Recommendation:** Improve early-stage communication of key program requirements to applicants, specifically those that require significant design change and documentation, through a checklist or summary guide provided before application submission or during the intake interview that is actively promoted and communicated to applicants as a program requirement. Work to attract program participants as early as possible in their building design process, such as by awareness campaigns targeted to market actors who are aware of projects very early on, such as architects and lenders, who could then inform building owners and developers about the program at the earliest design stages. Increase incentives or offer a standalone bonus for projects that engage with the program in earlier design phases and conduct more proactive outreach directly to potentially eligible projects and developers, potentially utilizing outreach methods conducted by other funding sources to reach new construction housing developers, to facilitate earlier involvement and maximize the potential for substantial design changes.

2. INTRODUCTION

Opinion Dynamics (evaluation team) is the developmental evaluator for the BUILD Program, utilizing the WISE™ approach.³ In this final Process report, we provide an update and share the findings from the ongoing process evaluation of the BUILD Program. Process research, including the activities highlighted below, continued between the interim process report (February 2024)⁴ through January 2025.

The following sections provide a high-level summary of program implementation, detail our process evaluation approach and methods, and report evaluation results, including findings and recommendations.

2.1 PROGRAM DESCRIPTION

The BUILD Program is an \$80 million program that aims to put California on a path to zero-emission homes by encouraging the design and construction of all-electric buildings. This program incentivizes the construction of new residential housing that utilizes near-zero-emission building technologies, significantly reducing GHG emissions compared to traditional mixed-fuel buildings. Eligible applicants must demonstrate that their project will result in at least a five percent reduction in residents' utility bills compared to mixed-fuel homes.⁵

Additionally, the BUILD Program offers standalone technical assistance to support project planning and educate developers, architects, builders, contractors, and other stakeholders about new technologies and all-electric building design. The primary goal is to engage with new construction market actors to raise awareness of building decarbonization technologies and encourage them to design, develop, and build all-electric new construction. All program funding is directed toward new low-income housing. The BUILD Program is supervised by the California Public Commission (CPUC) and administrated by the California Energy Commission (CEC).

The BUILD Program is funded through the emission allowances directly allocated to gas corporations under the California Cap-and-Trade Program administrated by the California Air Resources Board (CARB). To comply with CARB regulations regarding these funds, participation in the BUILD Program is limited to projects residing within a gas investor-owned utility (IOU) service territory, and funds must be spent proportionally across service territories to where those funds are derived.

Only building owners, developers, tribal governments, nonprofits and tribal organizations are eligible to apply for BUILD incentives. Each eligible developer can receive up to \$2 million in incentives, not including the New Adopter award. Developers can have multiple projects participating in BUILD, but the \$2 million cap then applies to the sum total of incentives across all their participating projects. As described in the BUILD Program Guidelines⁶, the BUILD Program offers the following incentives:

- **Base GHG incentive:** Base electrification incentive calculated as \$150 per metric ton of avoided GHG emissions.
- **Building Efficiency incentive:** Projects built to achieve efficiency beyond the applicable energy code, using the performance method specified by the Residential and Nonresidential Alternative Calculation Method Reference Manuals, will receive an additional incentive of up to \$1,000 per bedroom.
- **Incremental PV incentive:** An incentive per watt of additional PV installed beyond what is required by the applicable energy code. This incentive will not be provided for PV installed to meet the energy code or for additional PV

³ [WISE - Opinion Dynamics](#)

⁴ Available at: https://www.calmac.org/publications/EM&V_BUILD_Interim_Process_Report_FINAL.pdf

⁵ The BUILD Program Guidelines define an eligible applicant as a “private, nonprofit, tribal government, California tribal organization, or public owner developer of an eligible residential building.”

⁶ Antonio, Marites, Erica Chac, Adriana Dominguez, Larry Froess, Calleigh Turner, and Steven Van. January 2025. Building Initiative for Low-Emissions Development Program: Guidelines Second Edition, California Energy Commission. Publication Number: CEC-300-2024-022-CMF. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=262399&DocumentContentId=98932>

beyond what is required to meet the modeled resident energy cost requirement.⁷ This incentive is also capped at the cost of the PV system.

- **Kicker incentives:** The program provides kicker incentives for specific high-efficiency technologies, including smart thermostats, JA-13 compliant heat pump water heaters (HPWHs), use of equipment with low global warming potential (GWP) refrigerants, induction cooktops, heat pump clothes dryers (HPCDs), on-site energy storage, and electric vehicle supply equipment (EVSE).
- **New Adopter Design Award:** The program offers a New Adopter Design award of up to \$100,000 to eligible applicants who have never received a permit to develop and construct an all-electric residential building in California. The New Adopter award does not count toward a recipient's \$2 million total incentive cap.

The BUILD participation process has three steps: the optional design reservation phase (Step 1), the construction reservation phase (Step 2), and the project completion phase (Step 3).⁸ A project that does not yet have a building permit at the time of application will first apply for a design reservation and then proceed to a construction reservation after their building permit is received. A project with a building permit (but no certificate of occupancy) at the time of application will apply for a construction reservation directly. A project that has received a certificate of occupancy is not eligible for a BUILD Program incentive. Technical assistance, which is discussed in detail below, is available to applicants prior to achieving a design or construction reservation and during the design and construction reservation phases.

The BUILD incentive application process involves the submission of several required building design documents in addition to modeling tools outlined below:

- **BUILD Calculator (optional):** The BUILD Calculator estimates the total incentive that a project may receive through a simplified calculator based on CEC staff analysis. The incentive amount calculated using the BUILD Calculator is only an estimation of the incentive the applicant will receive. Applicants may use this calculator to estimate their potential incentive in Step 1 (design reservation) of the BUILD Program. It does not require the applicant to have completed any energy modeling of the project. Therefore, it is a simpler and more accessible option for Step 1 participants who may not have the detailed information on their project available to complete the more detailed Custom Path Tool. All participants applying in Step 1 must submit either a BUILD Calculator or a Custom Path Tool. As of the issuance of the second edition of the BUILD program guidelines, the BUILD Calculator path is only available to participants eligible for the New Adopter Award.
- **Custom Path Tool (CPT) (required):** Unlike the BUILD Calculator, the CPT is a required portion of the BUILD application. The CPT draws on energy model outputs to determine whether a project's building design meets the modeled resident utility cost savings requirement and calculates the incentive amount the project will receive. This tool is required to be completed in Step 2: Construction Reservation and Step 3: Project Completion. It is optional in Step 1: Design Reservation participants who are eligible for the New Adopter Award but required for all other applicants.

The BUILD Program offers standalone technical assistance to eligible applicants through the BUILD TAP. Applicants who receive technical assistance are not required to apply for a BUILD incentive. Additionally, those receiving a BUILD incentive are not required to apply for technical assistance. Each eligible applicant can be approved for up to 300 hours of technical assistance. Applicants may apply for technical assistance at any time during their participation in the BUILD Program.

Technical assistance supports project planning and educates developers, architects, builders, contractors, and other stakeholders about all-electric technologies and building design. The primary goal is to engage with new construction

⁷ According to the BUILD Program Guidelines, Chapter 2, Section A.6, to comply with PUC Section 921.1 (d)(3), "eligible applicants must demonstrate that the project will result in at least a 5 percent reduction of modeled residents' utility cost savings in the first year of building occupancy."

⁸ Ibid.

market actors to raise awareness of building decarbonization technologies and encourage them to design, develop, and build all-electric new construction. The BUILD TAP also provides applicants with information about and assistance with the incentive application process. The BUILD TAP is led by the Association for Energy Affordability (AEA), and TRC provides marketing, outreach, and application support.

2.2 EVALUATION OBJECTIVES

Key objectives of the BUILD Program process evaluation are:

- Assess the effectiveness of the BUILD Program in promoting sustainable building practices, particularly regarding all-electric construction and high efficiency all-electric measures.
- Measure the impact of technical assistance provided by the BUILD Program on project planning, design decisions, and applicant satisfaction.

3. EVALUATION APPROACH AND METHODS

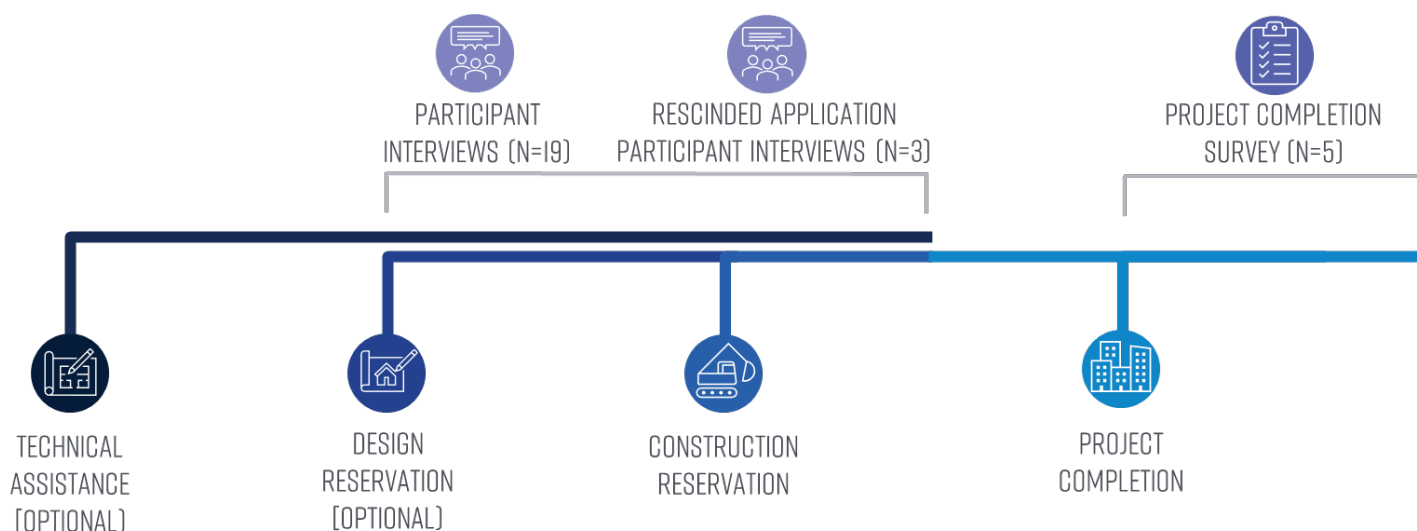
The process evaluation of the BUILD Program includes program staff interviews, program materials review, periodic status calls, participant interviews, a tracking data analysis, and a participant project completion survey. This report only includes data gathered from participant interviews conducted from January 2024 through December 2024. These activities are summarized in Table 1 and the sections that follow. As of this process report, five applicants have submitted project completion survey which is not sufficient for analysis of the results. Thus, those results are not included in this report but will be provided at a later date in a separate memo.

Table 1. Summary of BUILD Process Evaluation Activities

Evaluation Activity	Details
Periodic Status Calls	Periodic status calls with the implementation team to discuss program activity, program updates, and evaluation activity.
Participant Interviews	In-depth interviews with program applicants focused on the participation experience in both the incentives and technical assistance tracks, recommendations for process improvements, the impact of the program on project design, and the usefulness of technical assistance.
Tracking Data Analysis	Review and analysis of the BUILD Program tracking data, including incentive application and technical assistance tracking data, to calculate descriptive statistics of the population, highlight common characteristics of applicants, and identify trends. Data compiled from these reviews also helped to develop samples for participant outreach.
Project Completion Survey (Forthcoming)	Fielded at participant project completion. A web survey covering satisfaction with program design and implementation, the usefulness of different aspects of technical assistance, the expected impact on building operating costs, and other topics required by the BUILD Program guidelines to complete Step 3.

Figure 1 provides a visual depiction of the BUILD Program participation process and illustrates where participant primary data collection occurs. To minimize participant burden, we completed one interview per project, as close as possible to when the applicant achieves their first incentive reservation (which could be either a design or construction reservation, depending on where they enter the BUILD Program). The project completion survey occurs once an applicant reaches Step 3 of the participation process.

Figure 1. BUILD Incentive Program Participation Process and Participant Primary Data Collection



3.1 PERIODIC STATUS CALLS

The evaluation team holds a monthly Project Coordination Group status call with CEC and CPUC to discuss overall program activity and provide updates on evaluation activities.⁹ Through these check-in calls, the evaluation team was able to gather real-time information about the implementation status of the BUILD Program and work seamlessly with the BUILD implementation team to contact participants to participate in applicant interviews. As the developmental evaluator for the BUILD Program, the evaluation team has been able to understand changes to program implementation over time, including changes to the project pipeline and the application tool.

We also hold a status call every six weeks with CEC, CPUC, and the BUILD TAP to discuss ongoing technical assistance activity.¹⁰ During these check-ins, we discuss technical assistance updates, including the primary ongoing technical assistance activities, current hurdles facing the TAP, and any opportunities the TAP has identified.

Through these status calls, the evaluation team developed evaluation and research materials more tailored to applicants as they navigated the BUILD Program. By understanding the real-time status of the implementation efforts, the evaluation team was able to better understand the needs of applicants, inform program design and execution iterations, note lessons learned, and adapt our research to be more timely.

3.2 PARTICIPANT INTERVIEWS

The evaluation team conducted a total of 19 interviews with incentive program applicants after they achieved their first incentive reservation and TAP applicants after they had achieved a certain amount of technical assistance hours utilized.¹¹ The aim is to minimize recall bias by interviewing program applicants on a rolling basis immediately after incentive reservation is complete or after receiving a sufficient amount of technical assistance hours, as opposed to waiting until the project completes all steps of BUILD Program participation. One key focus of the interviews is the impact of the BUILD Program on project design, particularly the decision to build all-electric and decisions related to the energy efficiency of the building. The evaluation team also conducted three interviews with applicants whose project applications to the BUILD Program had closed, were withdrawn, were ineligible, or had become inactive. These

⁹ We held biweekly meetings during earlier phases of program implementation.

¹⁰ We held monthly meetings during earlier phases of program implementation in 2022.

¹¹ Depending on the stage of a participant's project when they enter the BUILD Program, their first incentive reservation could be a design reservation or a construction reservation.

interviews aimed to understand why their application status changed and resulted in them not receiving a reservation. This set of participants will be referred to as rescinded application participants for the remainder of the report.

3.3 TRACKING DATA ANALYSIS

We also reviewed program tracking data provided by CEC (for the incentive track) and AEA (for the technical assistance track) on an ongoing, monthly basis as the data were delivered. The data submission portal (DSP) that the CEC employed for the first year and a half of program implementation did not allow applicants to save incomplete applications or edit applications once submitted. However, the implementation team transitioned their application software from the DSP to the BUILD Online tool in the second quarter of 2023. The BUILD Online tool allows applicants to edit their applications before submission, save their application progress, and edit their applications after submission.

4. RESULTS

This section summarizes the detailed findings from our process evaluation, which includes program staff interviews, program materials review, status calls, participant interviews, and tracking data analysis.

4.1 PROGRAM PARTICIPATION SUMMARY

This section characterizes the population of BUILD applicant projects according to the program tracking data as of December 2024. Through that date, BUILD received applications for 88 projects requesting a total of \$38,031,193 in incentives (Table 2). Fifty-seven projects had received technical assistance, 60 had received kicker incentives, and 10 received a new adopter award.

Table 2. Applicant Project Characteristics

BUILD Project Stage	Total Projects	Projects with Technical Assistance	Projects with Kicker Incentives	New Adopter Award	Average Estimated Project Cost ^A	Average BUILD Incentive ^A	Average BUILD Incentive as Percentage of Average Project Cost	Total Incentive
Projects Approved as of December 2024 (Including Interview Respondents)								
Design Reservation	42	25	26	10	\$62,332,257	\$468,949	0.75%	\$19,695,848
Construction Reservation	41	28	29	0	\$46,701,090	\$421,023	0.86%	\$16,452,610
Completion	5	4	5	0	\$38,232,240	\$376,103	0.98%	\$1,882,735
Total	88	57	60	10	\$53,680,235	\$432,173	0.81%	\$38,031,193

^A The total row is the average of the entire pool of applicant projects

4.2 INTERVIEW RESPONDENT CHARACTERISTICS

The evaluation team, in coordination with the CEC, contacted 64 individuals across 43 companies that had achieved a Design or Construction reservation through the BUILD Program, nine individuals across seven companies that had received a substantial amount of technical assistance hours from the TAP team but did not apply for a Design or Construction reservation through the BUILD Program, and two individuals across two companies who had rescinded their application from the BUILD Program prior to receiving a reservation.¹² All these companies applied for an incentive

¹² Although we only conducted outreach to two companies who had rescinded their applications, while conducting a pre-scheduled interview with an applicant who had received a reservation we discovered they had since rescinded their application and instead conducted a rescinded application interview.

and/or assistance through the BUILD Program between June 2022 and November 2023. In total, we interviewed 22 developers representing 32 projects; three of these developers, representing four projects, were interviewed to discuss their decision not to pursue program participation further, and one respondent was a third-party energy advisor who worked with multiple developers applying for a reservation through the BUILD Program.¹³ The majority of this report focuses on the 19 respondents who submitted BUILD applications; we highlight findings from the three respondents who rescinded applications as needed, given their unique perspective on the BUILD Program. For clarity, throughout this report, we refer to developers who completed an interview with the evaluation team as “respondents” and developers who are part of the program tracking data but were not interviewed as “applicants.” Table 3 outlines the stage at which respondents’ projects engaged with the BUILD Program and whether or not they received technical assistance or a kicker incentive.

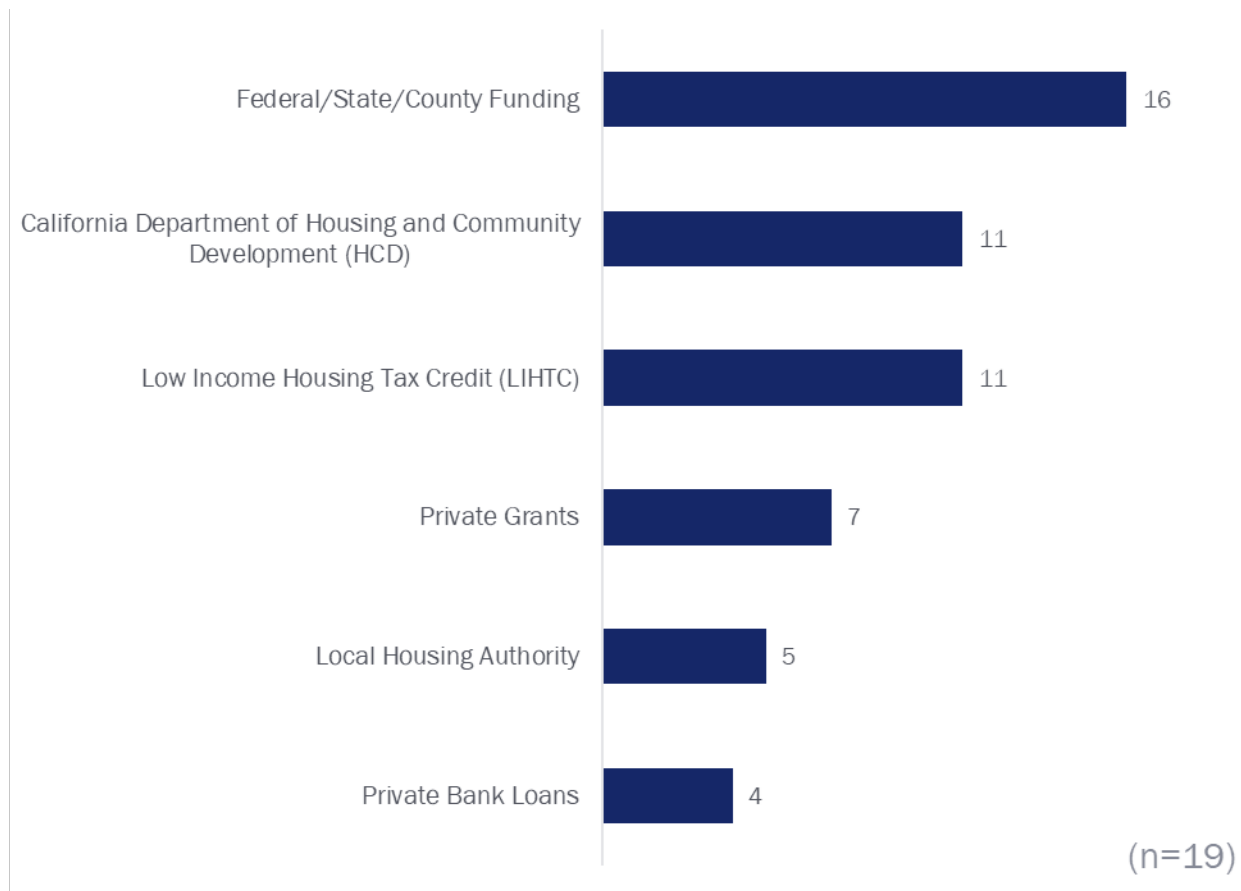
Table 3. Respondent Project Characteristics

BUILD Project Stage	Total Projects	Projects with Technical Assistance	Projects with Kicker Incentives
Incentive and Technical Assistance Interview Respondents (n=19)			
Design Reservation	13	10	6
Construction Reservation	12	11	8
Completion	3	2	3
Total	28	23	17
Rescinded Application Interview Respondents (n=3)			
Design Reservation	1	1	1
Construction Reservation	3	0	1
Total	4	1	2
Grand Total	32	24	19

Respondents reported using various funding sources for their projects, including county, state, and local government funds and loans; federal, state, and city tax credits; funds from the HCD; and private grants in addition to BUILD funding (Figure 2). On average, respondents utilized four funding sources for their project in addition to BUILD funding. Most of these other funding sources were acquired before the respondent applied to BUILD, during the pre-design development stage of their projects.

¹³ None of the other developers this energy advisor was working with were part of the respondent population.

Figure 2. Additional Funding Sources



Respondents typically learned about the above funding sources through their experience in affordable housing development, outreach conducted by the HCD and other funding sources, and checking online calendars, schedules, and message boards for additional funding opportunities. The TAP did not play a significant role in connecting most respondents to these funding sources. Still, they provided helpful information about other potential funding opportunities for a few respondents (3 of 19).

There is only a moderate overlap between BUILD program requirements and those of other low-income funding sources. Most respondents (14 of 19) either mentioned another funding source they are using has requirements that align with the BUILD Program's requirements or incentives or meeting the BUILD Program's requirements assists with being more competitive in their applications to other funding sources such as the Affordable Housing and Services Collaborative (AHSC), a California HCD program, or the U.S. Department of Agriculture (USDA).

All respondents worked in multifamily affordable housing, with some (7 of 19) also working in single family affordable housing. Most (16 of 19) respondents' current and future new construction projects in these sectors are all-electric, which aligns with the 2022 update of California's Title 24, which took effect in January 2023, which promotes all-electric buildings as part of new construction code through both financial incentives and building standards. Of the 28 projects represented by respondents, 15 projects engaged with BUILD during the construction phase and 13 during the design phase.

4.3 MARKETING AND OUTREACH

BUILD webinars were the most common way applicants learned about the BUILD Program. According to the program tracking data, most BUILD applicants learned about the BUILD Program through a BUILD webinar (32 of 88), followed

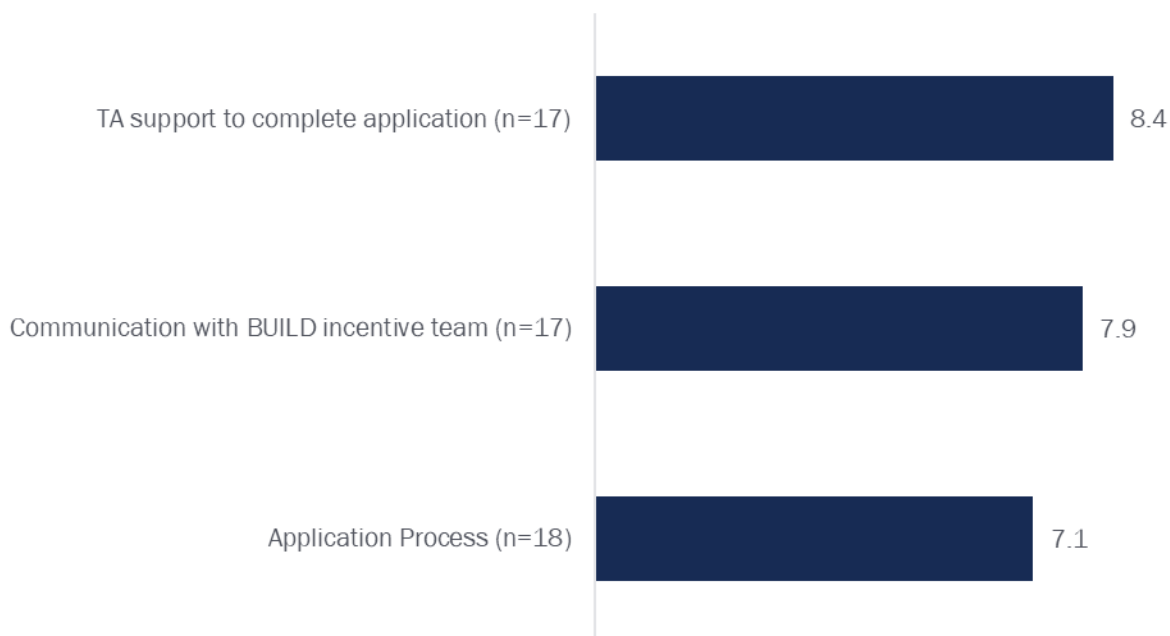
by referrals (20 of 88), word of mouth (14 of 88), an in-person event (8 of 88), the BUILD website (5 of 88), email (4 of 88), directly from the BUILD staff (4 of 88), or from a technical assistance provider (1 of 88).

Interview respondents favored email as a way to learn about the program. All but one respondent (18 of 19) suggested promoting BUILD through prominent affordable housing organizations and industry trade groups with substantial affordable housing mailing lists in California. Respondents also suggested email outreach to developers (8 of 19) would be a good way to increase program awareness. To further increase awareness, respondents recommended coordination with organizations and individuals that developers commonly interact with including affordable housing organizations (9 of 19), state and local funding offices (6 of 19), nonprofit organizations (5 of 19), energy and financial consultants (4 of 19), and the California Tax Credit Allocation Committee (TCAC) (2 of 19). Of the three respondents who were carrying out their first all-electric project, two learned of BUILD through referrals and one through email. According to the evaluation team’s conversations with the TAP team, AEA is already conducting outreach activities like event attendance and email outreach to advertise BUILD technical assistance. Respondents who engaged with the BUILD Program in the construction phase also recommended offering an incentive for earlier project engagement with the BUILD Program and increasing awareness of the BUILD Program through methods such as reaching out directly to projects and developers.

4.4 APPLICATION PROCESS

Respondents were asked to rate the BUILD application components on a scale from zero to ten, where zero represents “Not at All Satisfied” and ten represents “Extremely Satisfied” (Figure 3). On average, respondents rated the incentive application process as 7.1 out of 10 (n=18)¹⁴ when asked to rate their satisfaction with the incentive application.

Figure 3. Average Satisfaction Rating of BUILD Application Components



Interview respondents reported the BUILD incentive application was the most difficult part of applying to the program. Most (13 of 18) respondents reported some difficulty completing the BUILD incentive application. Three respondents who did not report difficulty completing the incentive application utilized an energy consultant to complete the application on their behalf. According to our conversations with the TAP team, this is not a common trend among

¹⁴ Throughout the report, there are instances where one or more respondents were unable to provide a response to specific questions, and we reduce the respondent count accordingly. For instance, one interviewee was unable to answer this question.

developers with which the TAP team works. Respondents reported the following common issues when completing incentive applications:

- Lack of clarity of the requirements and required documentation of the incentive application
- Significant amounts of back and forth between the respondent and the CEC regarding changes to the energy model
- Lack of clarity on which aspects of the application TRC could assist with, as well as frustration with TRC's inability to provide answers to certain questions
- Significant administrative costs and time to complete the application, especially compared to the potential award amount
- Difficulty completing the incentive application due to it being different from other funding sources with which the respondents had experience.
- Multiple rounds of corrections, resulting in a many-month process for corrections, which respondents felt could have been rolled up into fewer rounds of corrections

Respondents provided suggestions for improvement of the BUILD incentive application process:

- More responsiveness from the incentive application team at the CEC (3 of 19 mentions)
- Streamline the application process, provide clearer messaging to applicants about the reasons behind specific information requests, and transparency on the review and correction process (2 of 19 mentions)
- Provide a public FAQ of questions applicants have asked for future applicants to review (1 of 19 mentions)
- Additional clarity on the calculation of funding amounts based on changes to the energy model and the corrections (1 of 19 mentions)

Most respondents did not find any eligibility requirement overly burdensome; however, some reported difficulty meeting the PV requirements, providing PV benefits to tenants, and making the required efficiency improvements with the lower BUILD funding amount compared to other programs.

Almost all respondents (13 of 15) noted that the application correction process took significant time, and the application itself required significant project documentation to complete. All respondents mentioned going through multiple rounds of corrections before their application was accepted, and most (15 of 19) reported the entire correction process took multiple months to submit, revise, and receive approval for their incentive application.

While respondents were, on average, satisfied with BUILD Program communication, a few reported difficulties communicating with the BUILD Program incentive team. On average, respondents rated communication with the BUILD incentive team as 7.9 out of 10 when asked to rate their satisfaction on a scale from zero to ten, where zero represented "Not at All Satisfied" and ten represented "Extremely Satisfied." Yet, a few respondents (4 of 17) mentioned communication and communication protocols were often unclear and inconsistent. Three respondents noted difficulties getting answers regarding questions they had about their incentive application. Their TRC representative was unable to provide the necessary information and felt the process of getting a correct and timely answer from the CEC was cumbersome. According to the evaluation team's conversations with the TAP team, TRC assists with corrections to the incentive application, but the CEC issues the corrections. One respondent's recounting of their experience is highlighted below:

"There was a lot of back and forth between us and the CEC and a lot of questions that we asked of the BUILD Program that our technical assistance folks couldn't answer, and it took a long time to get responses on those because they would have to go to the BUILD team, ask those questions and get back to us...I think having this kind of intermediate...We never really spoke with CEC or communicated with them directly. Everything was mediated

through TRC, some contact at TRC, which just created this game of telephone that was pretty frustrating and, I think, added to the delays. I'm not sure how many other projects or what else our TRC person was doing. I'm sure they had other responsibilities in their role, and so it just added another step to this already clunky process. And again, pretty unusual, especially given the technical nature of the questions. It was our consultant asking us, asking TRC, asking CEC. CEC telling the consultant, telling us, telling... So it just made it really, really long.”

As previously indicated, interview respondents included three individuals whose projects rescinded applications for a BUILD incentive. **All three rescinded application respondents felt that certain requirements of the BUILD Program were not clearly communicated to them.** All three respondents mentioned that they were not informed about the substantial requirements of the BUILD Program until construction was set to begin, and it was too late in their projects' timelines to adjust their design plans. Two of the three respondents joined the program during the construction phase but reported participating in the program for six months (1 respondent) or a year (1 respondent) before learning about these requirements; the third respondent joined the program while in the development phase. Two respondents mentioned the requirement of providing PV benefits to tenants, and the other respondent mentioned the prevailing wage requirement as a requirement that was not communicated to them until late in the reservation process. One of the rescinded application respondents who was asked to provide PV benefits to tenants was also asked to create and agree to a Virtual Net Energy Metering (VNEM) agreement. The respondent mentioned it would have been possible to implement this requirement had it been communicated earlier in the project's timeline. According to the evaluation team's conversations with CEC and CPUC, the legal documents and processes for tenant PV allocation were evolving at the time, which may have contributed to the late communication for the requirement and steps required that led to these respondents' applications being rescinded. The other two rescinded application respondents mentioned that if they had known about the requirements earlier in the project timeline, they most likely would not have continued with the BUILD Program anyway, as implementing the change was not financially feasible given the BUILD award amount.

“Yeah, so option one was a VNEM agreement assigning at least the projects modeled [Custom Path Tool] required kilowatts of PV benefits to the residents, and option two was a demonstration of individual meters, proof of measure installation, and legal covenants assigning PV benefits to the residents...It would be nice if we would've found out about BUILD much early on just after getting entitled. That way, we probably could have gone with option one since the design would've probably been very flexible. But at the same time, part of the reason we didn't continue is because the incentive estimated award was low, where it just didn't make sense to go through all this additional trouble for a low amount of money anyways.”

Respondents with experience with other government or utility-funded programs had differing experiences compared to the BUILD Program. Overall, 8 of 15 respondents reported experience with these other programs. One respondent found the BUILD Program easier to apply to than other programs, while another found the process of applying for and receiving an incentive from BUILD to cause increased administrative costs and burdens compared to other government and utility-funded programs. Some of the elements respondents recommend the BUILD Program could adopt from other government or utility-funded programs are listed below:

- List of other funding sources the BUILD Program aligns with so applicants can easily utilize other funding sources (TCAC, Solar on Multifamily Affordable Housing (SOMAH), AHSC) (3 mentions)
- Simpler application and interface/portal (3 mentions)

- Fewer rounds of review and a points scoring system representative of the incentive amount, so applicants can see where points are being lost on the application (1 mention)
- Pre-application design review for screening of applicant designs that may not be approved to reduce the administrative burden of the application (1 mention)
- Additional documentation for common points of confusion for applicants: reimbursement requests, additional application questions, and incentive receipt process (1 mention)

One respondent who asked for additional documentation mentioned the following:

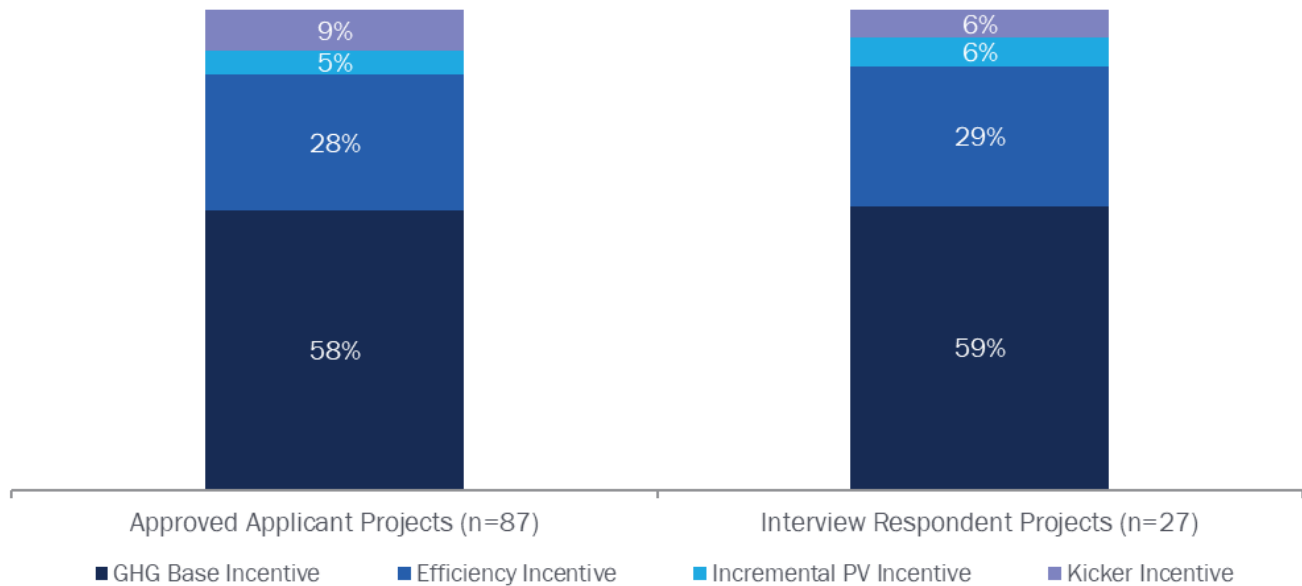
“[These] other funding sources, they tend to have a Q&A, like I said, online or other webinars that folks can ask general questions and then be able to follow up about specific questions later. So that would be helpful, to hear just what other people are experiencing in their application process. It felt like there could be some more general information on the website or just some more transparency”

4.5 INCENTIVE AMOUNTS

The BUILD Program incentive is split into four categories: the base incentive, the efficiency incentive, the incremental PV incentive, and kicker incentives (see Section 2.1). The program offers an additional award to applicants who qualify as first-time all-electric developers: the New Adopter Design Award. BUILD intended this award to offset the costs of a developer hiring design professionals to design an all-electric building for the first time. The following section discusses the breakdown of the total incentives currently reserved within the BUILD Program, participants’ understanding of the application, and recommendations for overall improvement.

Program tracking data show the base GHG incentive accounted for more than half of the total reserved BUILD incentive (58%). The efficiency incentive accounted for 28%, the kicker incentive accounted for 9%, and the incremental PV incentive represented the smallest proportion at approximately 5%. Figure 4 shows the total amount of the incentive reserved by category across all approved applicant reservations and all respondents.

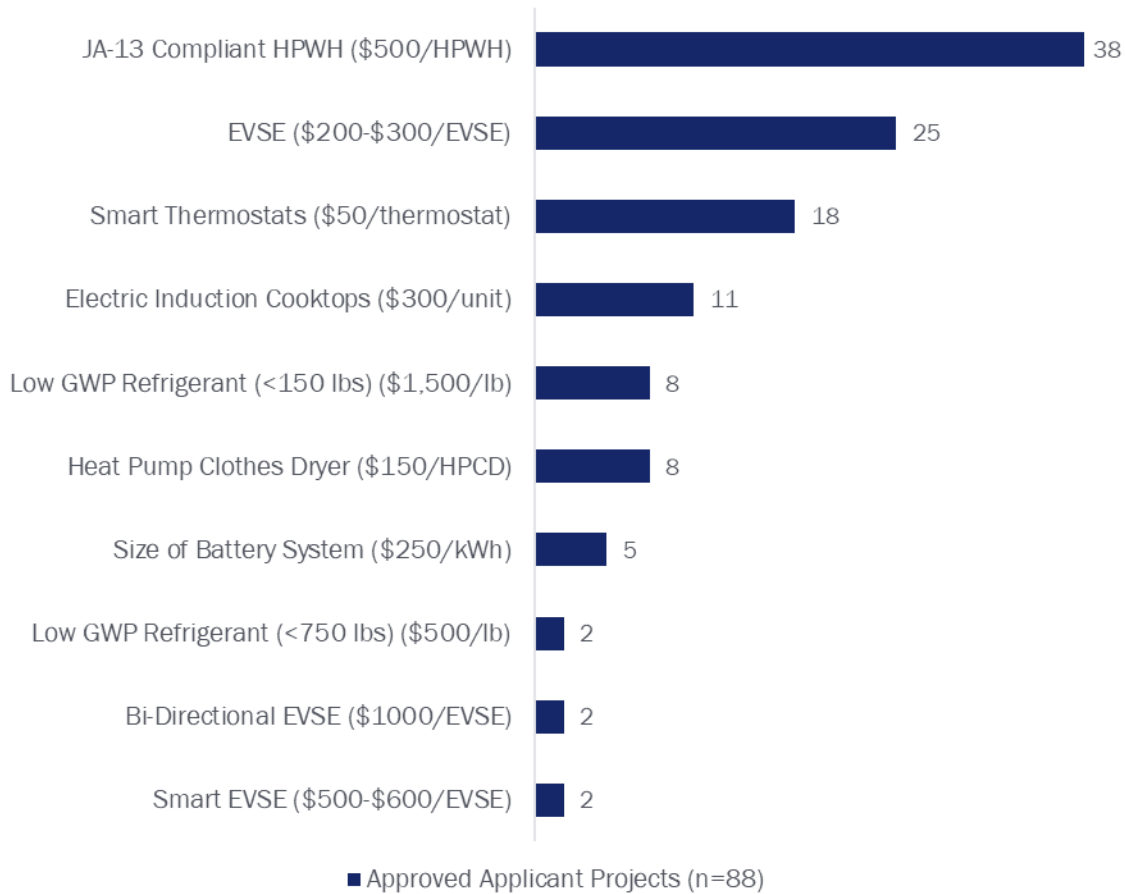
Figure 4. Total Incentives Reserved by Category for Applicant Projects and Respondent Projects



Note: One applicant who was also a respondent did not have their total reserved BUILD incentive broken down by category, so they were removed from Figure 4.

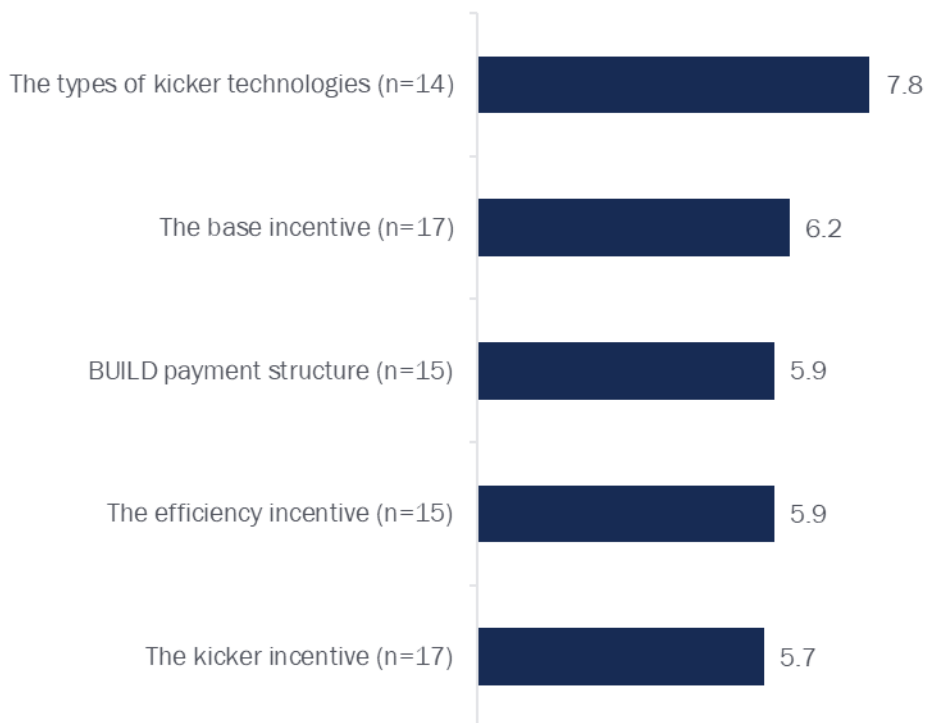
More than half of projects (68%) in the program tracking data included kicker incentives (60 of 88). Most respondents' projects also received kicker incentives (17 of 28). Of the applicant project's that included kicker incentives, the most common kicker incentives were the JA-13 HPWH kicker (38 of 88) and the EVSE kicker (25 of 88) (Figure 5).

Figure 5. Number of Kickers Received



When evaluating the BUILD incentives, respondents were most satisfied with the types of technologies for which the BUILD Program offered kicker incentives. While satisfaction was generally lower for the base, efficiency, and kicker incentive amounts and the overall BUILD payment structure, respondents still reported being satisfied overall. Figure 6 displays the average rating for each part of the BUILD Incentive. A small number of respondents did not answer these interview questions; consequently, the number of respondents counted for each bar varied.

Figure 6. Average Satisfaction Rating of BUILD Incentive Components



Many respondents (10 of 17) noted that some kicker incentive amounts are insufficient to cover the cost difference between the kicker technology and their less expensive alternatives. These respondents noted that if the incentive is not enough to cover the incremental costs of kicker technologies compared to cheaper alternatives, the tight budgets and frequent value engineering on affordable housing projects preclude the incorporation of kicker technologies, such as induction cooktops compared to electric coil cooktops or HPCDs compared to electric clothes dryers.

"A lot of times when we're going through value engineering efforts, when we've gotten a lot of public criticism for the overall cost of buildings, a lot of the feedback that we're getting is about high cost and how can we reduce it. And so a lot of the things that end up on the cutting block really quickly are things like before solar was code required, like holding solar until later on in the game or reducing the quality of appliances, which also often makes them less efficient. Changing the cooling and heating systems, things like that really quickly end up on the cutting block. So I think if we really want to make sure that this stuff is happening in affordable buildings, we really need to make sure that those incentives are really compelling and can really truly offset the cost."

4.6 TECHNICAL ASSISTANCE

The BUILD Program TAP aims to provide design support for and education on all-electric new construction to projects during the design and construction phases and assist developers with completing the BUILD application. This assistance includes application guidance, review of all-electric design plans, and help with incentive layering, fuel substitution, and technology evaluation. All applicants who received technical assistance received incentive assistance (76 of 76), half received design assistance (37 of 76), and a fifth received project planning assistance (13 of 63). Most

respondents' projects (23 of 28) received technical assistance support. Note the findings in this section apply to the TAP team as a whole, and we are unable to separate results by individual TAP team members.¹⁵

Respondents' primary motivations for technical assistance were to receive assistance with applying for the BUILD Program incentive, reducing the need for application corrections, increasing the incentive amount, and getting help with general questions. **Respondents mentioned the TAP team was very helpful in assisting with technical understanding, ways to increase the incentive amount with changes to their design, and general questions that arose during the project's lifecycle.** Other key take aways include:

- The respondents who could provide their thoughts on the intake interview¹⁶ (6 of 14) mentioned it was very helpful in outlining the BUILD participation process, identifying the key documents and resources, and explaining the incentive application and reservation processes.
- Few respondents (3 of 9) received recommendations from the technical assistance team for additional resources and funding.
- Two other respondents wished for constant communication and “check-ins” from the technical assistance team.
- Out of all of the various aspects of technical assistance, some (4 of 11) respondents found incentive assistance to be the most valuable aspect.
- Over a quarter of respondents (3 of 11) did not find the technical assistance very valuable for their projects.

On average, respondents reported high satisfaction with their experience with the technical assistance team, and all respondents who were asked whether they recommended that other applicants utilize technical assistance (n=14) did recommend it. On average, respondents rated the technical assistance as 8.4 out of 10 (n=15).¹⁷ One noted the following about their experience:

“They were helpful with every aspect of it, doing the calculator on my behalf and advising me about the technicalities of the actual application portal and explaining how all of the tabs worked. They just, to be honest, really held my hand to make sure I understood the program and how to apply.”

¹⁵ During interviews, respondents showed confusion about which entity of the TAP team—the technical assistance staff from AEA or incentive assistance staff from TRC—they interacted with regarding specific topics or at particular points in time. Respondents often were thinking about their interactions with and thoughts on the incentive assistance when answering questions related to technical assistance received and vice versa. According to a conversation with the TAP team, both technical assistance and incentive assistance representatives were present at the technical assistance intake interview and followed up on a biweekly basis. Consequently, we infer respondents perceived the TAP team as a unit rather than having AEA and TRC components.

¹⁶ Most respondents (8 of 14) reported some level of difficulty providing their full perspective and thoughts on the intake interview as a significant period of time had passed between their interview and reaching the reservation phase or they were not part of their project during the intake interview.

¹⁷ When asked to rate their satisfaction with the technical assistance on a scale from zero to ten, where zero represents “Not at All Satisfied” and ten represents “Extremely Satisfied.”

The TAP team provided education about all-electric new construction best practices and increased respondent knowledge of all-electric residential building design. Most respondents (11 of 16) reported being more knowledgeable about all-electric residential building design after receiving technical assistance. Still, one respondent reported a decrease in knowledge level after receiving technical assistance as it made them realize how large and complicated the all-electric residential building design market is:

“I think the more I learn, the more questions I have...”

Typically, respondents reported mixed results on applying what they learned from BUILD Program participation to other projects. A third of respondents (6 of 15) reported that they have not been able to apply what they’ve learned from the BUILD Program to other projects, another third of respondents (5 of 15) reported being able to apply what they learned from the BUILD Program to other projects they are working on, and the final third of respondents (4 of 15) were able to better approach applying to the BUILD Program for other projects or inform others at their company about the BUILD Program. Some respondents (3 of 15) reported additional knowledge about PV and energy-efficient technologies after receiving technical assistance from the BUILD Program.

4.7 ATTRIBUTION

The primary goal of the BUILD Program is to engage with new construction market actors to raise awareness of building decarbonization technologies and encourage them to design, develop, and build all-electric new construction housing. By providing incentives and technical assistance to builders and developers, the program intends to encourage them to build all-electric rather than dual-fuel buildings.

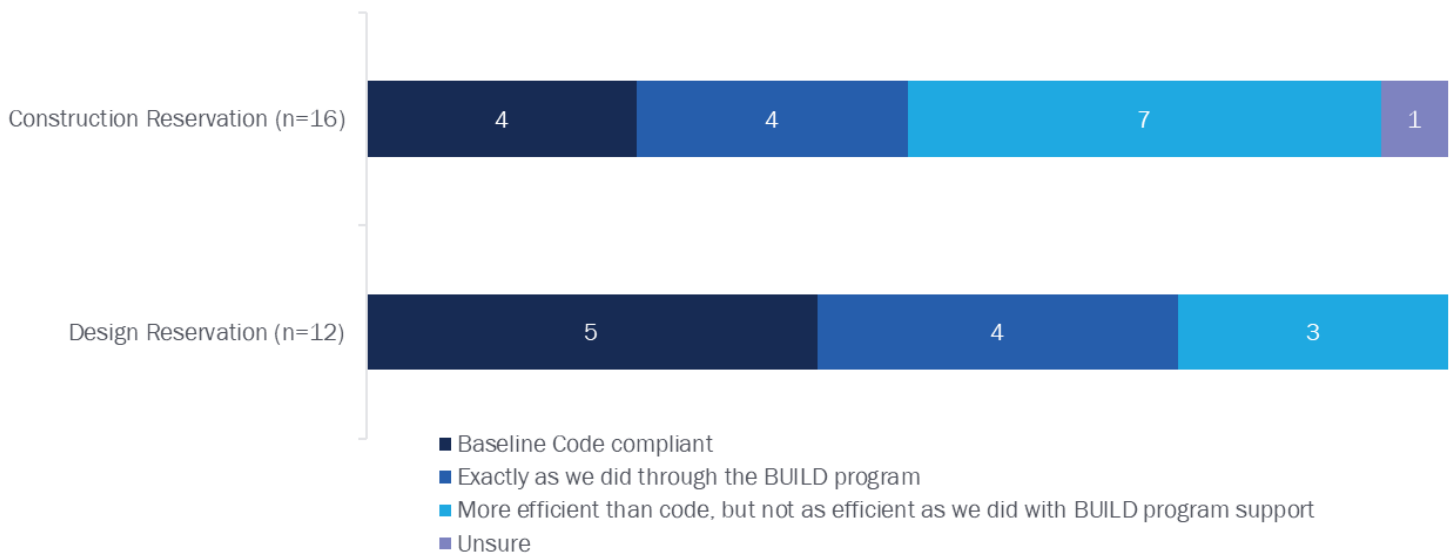
The evaluation team sought to understand the number of applicants who attributed their decision to develop an all-electric building to their awareness of and participation in the BUILD Program. **All but one respondent (18 of 19) reported that they would have built all-electric projects regardless of their participation in the BUILD Program** due to baseline energy code requirements of Title 24 and the requirements of other funding sources (e.g., the AHSC, USDA, and California TCAC programs). One respondent reported they would have built all of their projects dual fuel and that the BUILD Program was a major influence in their decision to build all-electric.

When asked how the BUILD program influenced their projects, one-third of respondents (7 of 18 representing 14 of 28 projects) reported their participation in the BUILD Program increased the efficiency level or reduced the GHG emissions of their projects. These respondents reported making these changes to their project designs due to the BUILD Program incentive or BUILD requirements. Respondents cited several specific upgrades the BUILD Program influenced them to make, either through kicker incentives or requirements of the program, to their designs, including:

- Increasing PV size (8 mentions)
- Upgrading equipment to meet kicker requirements (7 mentions)
- Adding a thermostatic mixing valve (1 mention)

When asked what they would have done in the absence of the BUILD program, the majority of respondents (12 of 19 respondents representing 19 out of 28 projects) reported their designs wouldn’t have been as efficient (Figure 7). Six respondents would have built their projects to baseline code compliance. Another 6 respondents would have built their projects more efficiently than code but not as efficiently as they did with BUILD Program support. The remaining six respondents reported that they would have built their project the same as they did if the BUILD Program had been unavailable, most of whom (4 of 6) were still in the design development phase when they first engaged with the BUILD Program.

Figure 7. Likely Action to be Taken By Project Without the BUILD Program



Despite applicants finding the technical assistance useful and recommending other applicants utilize it, about a third of respondents (7 of 19) reported they did not make any changes to their design due to the technical assistance they received. Similarly, a few respondents reported that their project designs were mostly finalized by the time they had engaged with the BUILD Program and, therefore, could not make further changes to the design of their building (3 of 18).

5. KEY FINDINGS AND RECOMMENDATIONS

The evaluation team offers the following findings and recommendations based on the process evaluation results.

- Finding:** The BUILD program does not appear to be influencing participants to build all-electric residential housing. When asked what they would have done in the absence of the BUILD program, most respondents (18 of 19) would have built all-electric projects regardless of BUILD participation. Only ten of the 88 approved applicant projects were new adopters, three of whom are respondents covered in this report. All three of these respondents stated they would have built all-electric projects regardless of participation.
- Recommendation:** BUILD, or other similar residential new construction decarbonization programs, should explore ways to focus the program on specific building types, regions, and project types that still face significant impediments to electrification at scale. The implementation team should identify specific market actors or projects where program technical and financial support are more likely to drive decision making, such as projects with common electrification design challenges, knowledge gaps amongst design professionals or tradespeople, electric technologies that are especially challenging to deploy, etc. Next, program support could then be tailored to remedy such challenges via targeted marketing, training, support materials or incentives that are designed to make electrification projects faster and easier for even experienced design teams. BUILD could augment the online Electrification Knowledge Hub with these new materials that help design teams and builders anticipate and overcome problems, as well as provide hands-on support if resources permit them.

BUILD could consider expanding the New Adopter award to serve single family developments or repurpose incentive funds to focus on buildings or geographic areas that are difficult to electrify. The BUILD Program Time

1 Market Study¹⁸ found the single-family affordable housing market segment had the lowest percentage of respondents with experience building all-electric new construction and this could present an opportunity for BUILD to increase participation in the New Adopter award.

Furthermore, the program could repurpose funds to support developers and design teams who have previously built all-electric, but are now attempting new types of buildings, developments in geographic areas that are lagging in all-electric construction projects. The Time 1 Market study found the multifamily affordable housing market segment had the highest rate of respondents with all-electric new construction experience, but these market actors still likely face challenges in building all-electric buildings in specific scenarios.

- **Finding:** The BUILD Program does appear to be influencing projects to become more efficient than they would have been in the absence of the program. Over one-third of respondents (7 of 18) reported BUILD influenced their projects to be more energy-efficient or produce lower GHG emissions. In addition, the majority of respondents (12 of 19) said their designs would have been less efficient in the absence of the BUILD program. Six stated their projects would have been designed to be slightly above code, while six would have only met baseline code compliance.
- **Recommendation:** BUILD should consider providing an incentive for very early engagement with technical assistance, such as in design development or schematic design, and ramping up technical assistance for projects that are not pursuing an incentive. Early engagement with technical assistance may increase the opportunity for the TAP team to further improve building design and performance by allowing for deeper and more substantial changes to the design. Increasing engagement with projects not pursuing incentives allows design teams and developers to access this support without needing to engage in the incentive application process.
- **Finding:** Although most respondents said they felt more knowledgeable about all-electric residential building design after participating in the BUILD Program, respondents reported mixed results on applying what they learned from BUILD participation to other projects. This was true regardless of the stage of project completion participants were in when they joined the program. One-third of respondents applied what they learned to their other projects, one-third used the knowledge to inform future BUILD applications with other projects or coworkers, and one-third could not apply what they learned to other work.
- **Recommendation:** Explore ways to increase knowledge transfer and support continued learning, such as post-project debriefs or sponsoring “lunch and learn” talks about BUILD at the firms that have completed their first BUILD project. To the extent not already covered, consider having technical assistance emphasize the practicality of all electric new construction, specifically preempting common concerns about upfront cost, impact on the grid, and impact on tenants bills, all of which were identified in the BUILD Time 1 Market Study as areas of concern regarding all-electric new construction.
- **Finding:** Respondents reported using an average of four funding sources per project in addition to BUILD funding. These included county, state, and local government funds and loans; federal, state, and city tax credits; California Department of Housing and Community Development (HCD) funds; and private grants. While most non-BUILD funding sources had different requirements than BUILD, respondents noted their applications were more competitive when applying to non-BUILD funding sources when projects demonstrated higher energy efficiencies.
- **Recommendation:** Consider additional coordination with other funding sources to foster broader awareness of BUILD while avoiding redundancy with other funding source requirements. Encourage applicants to leverage BUILD to strengthen their applications to other funding sources by, for example, improving equipment efficiency. Increase publicity activities for BUILD materials that can help developers fund their projects, such as the BUILD incentive layering overview.

¹⁸ https://pda.energydataweb.com/api/downloads/4111/BUILD%20Time%201%20Market%20Study%20Report_FINAL.pdf

- **Finding:** BUILD webinars were the most common way applicants initially learned about the program. However, interview respondents indicated a preference for email communication to receive information about the program. Of the three respondents who were carrying out their first all-electric project, two learned of BUILD through referrals and one through email.
 - **Recommendation:** Consider tailoring outreach strategies to focus webinars on general awareness and information about the program while using targeted email campaigns to maintain attendees' engagement.
- **Finding:** Respondents expressed high satisfaction with the Technical Assistance Provider (TAP) team. All 14 respondents with material interactions with the TAP recommended TAP to other applicants. Respondents appreciated support in technical understanding, incentive maximization, and best practices for all-electric residential building design.
- **Finding:** Respondents consistently reported that the BUILD application was the most challenging aspect of participation. Nearly all respondents (13 of 15) highlighted the application correction process as time-consuming and documentation-heavy, and most respondents (13 of 18) reported some difficulty completing the BUILD incentive application. Respondents reported a lack of clarity of the requirements and required documentation of the incentive application and a lack of clarity on which aspects of the application the TAP team could assist with, as well as frustration with the TAP team's inability to provide answers to certain questions. Further, respondents stated the application required significant administrative costs and time to complete the application, especially compared to the potential award amount, and that multiple rounds of corrections were often required, which respondents felt could have been rolled up into fewer rounds of corrections.
 - **Recommendation:** Consider evaluating the application and correction process for simplification and provide clearer guidance or templates to reduce the documentation burden. To the extent possible, and with the resources available, accelerate the review and revisions process. For example, take steps to eliminate the need for multiple rounds of review by ensuring the first review is comprehensive and subsequent reviews do not identify issues that could have (and should have) been identified in the initial application review.
- **Finding:** Three respondents did not continue their BUILD participation because program requirements were not clearly communicated until their projects were too far along in the construction phase to adjust their plans. Two of the three respondents joined the program during the construction phase but reported participating in the program for six months (1 respondent) to a year (1 respondent) before learning about the requirement that caused them to discontinue their participation; the third respondent joined the program while in the design development phase. The specific requirements were photovoltaic (PV) allocation requirements for tenants and prevailing wage requirements were not disclosed early enough for developers to adjust plans accordingly.
- **Finding:** Almost half (15 of 28) of the projects entered the program during the construction phase, when major design changes are difficult or impossible to implement cost-effectively.
 - **Recommendation:** Improve early-stage communication of key program requirements to applicants, specifically those that require significant design change and documentation, through a checklist or summary guide provided before application submission or during the intake interview that is actively promoted and communicated to applicants as a program requirement. Work to attract program participants as early as possible in their building design process, such as by awareness campaigns targeted to market actors who are aware of projects very early on, such as architects and lenders, who could then inform building owners and developers about the program at the earliest design stages. Increase incentives or offer a standalone bonus for projects that engage with the program in earlier design phases and conduct more proactive outreach directly to potentially eligible projects and developers, potentially utilizing outreach methods conducted by other funding sources to reach new construction housing developers, to facilitate earlier involvement and maximize the potential for substantial design changes.