Identifying the True Participation Rate and Encouraging More Engaged Participation: Lessons Learned from a New Commercial Construction Program Evaluation

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ABSTRACT

An ACEEE study reported that the most successful new construction programs in the country influence around half the new construction projects or floor space in a service territory. These estimates were typically conducted by comparing program records with commercial market data reporting services like Dodge or Reed that compile permit records that indicate new construction projects. Our recent market analysis and our inclusion of nonparticipant research revealed that a commercial new construction program in the Northwest influenced about eighty percent of new construction projects in the service territory, a notable increase over other successful program estimates and an increase over the program's previous estimates.

Currently, the bulk of participants enroll to receive prescriptive incentives for individual efficiency measures. The remaining participants enroll in more involved program tracks that push buildings to achieve high efficiency levels through energy modeling and other services, up to and including net-zero construction. This research revealed that the program's challenge is to convert the prescriptive incentive participants to become high efficiency participants for their future builds.

One possible way to assist with this conversion is to stress to the measure-based participants the aspects of the program that the high efficiency group reported appreciating the most: the financial and administrative support the program provided to host early design meetings, the financial support for conducting energy modelling, the technical assistance provided to support decision-making, and the project management support offered by program staff. The high efficiency participants reported that financial support for efficiency measures was nice to have but not as important as these other elements of program support.

This paper reviews the high market penetration rate, the role of nonparticipant research in estimating market penetration, the most valued aspects of the program among high efficiency participants, and how that information can potentially contribute to converting less engaged participants to become high efficiency participants for their future projects.

Introduction

This work resulted from a process evaluation of a commercial new construction program in the Pacific Northwest. This program, in existence for 20 years, provides cash incentives to implement electric and gas energy efficiency measures and technical support to identify energy savings opportunities and designs in new commercial and multifamily buildings. The program provides:

- Funding to support purchase and installation of above-code measures.
- Funding for early design meetings with the entire construction team.

- Funding to support identification and deployment of energy modelling.
- Program outreach staff providing project and incentive management from pre-design to building commissioning.
- Program outreach staff providing referrals to support solar installation.
- Training and educational offerings about advanced energy efficiency options and best-practice design.

The program provides several tracks and services to meet the needs of developers and design teams with varying levels of interest in efficiency. There are measure-based tracks that are largely prescriptive efficient replacements of code-level equipment all the way to tracks that offer assistance and funding to support early design meetings, energy modeling, and net-zero construction. Almost three-fifths of participants use the least rigorous form of the program by receiving incentives to install one or two measures. The other two-fifths of participants engage with the program more by receiving assistance with facilitating early design meetings, energy modelling, program staff assistance with project management, and guidance on solar installations.

The research had two general goals. The first was to complete a general process evaluation of the program that included participant and nonparticipant research. This included providing information on how program participants learned about the program, their reasons for participation in general and for choosing the program track they chose, and their satisfaction with program elements. The nonparticipant work was to provide information about nonparticipants' awareness of the program, their reasons for not participating, and whether they were selective about participating – that is, did they participate for some projects but not others? Program staff could use this information to design program services that would be more attractive to nonparticipants.

The second research goal was to develop a characterization of the service area's new construction market, including an updated estimate of program penetration into the market. For much of the last decade, it has been estimated that around half of all new commercial construction and major remodel projects occurring in program territory participated in the program. Prior market penetration rate studies suggested the program covered 58% of projects in 2012 and 2013 and 48% in the 2014 to 2016 timeframe. In contrast to the evaluation described in this paper, past evaluations and program penetration estimates did not involve nonparticipant research.

As discussed below, the initial nonparticipant data collection efforts led to a change in this part of the research to focus more on the program penetration estimate and less on nonparticipants' awareness and participation decisions.

Analyzing results from interviews with nonparticipants and participants revealed two key insights about this program that can also help others interested in encouraging new construction projects to exceed energy code. First, understanding the effect the program is having in the market requires a thorough understanding of the population and that may require nonparticipant research. Second, most participants are using the program minimally and there is an opportunity to recruit those owners and designers to construct more efficiently in the future by emphasizing some of what more-engaged participants told the evaluation team were the program's key benefits.

Methodology

There were two key data collection activities of this process evaluation that are important to this paper. The first was recruiting and interviewing nonparticipants and the second was interviewing participants.

Nonparticipants

Using data from Dodge Data & Analytics and in consultation with the program administrator, the evaluators prepared a sample of, and interview guide for, architects, building owners, and general contractors associated with commercial new construction projects that did not receive program services or incentives (nonparticipants). The evaluators then recruited respondents.

Sample Preparation

The evaluators developed a representative sample of nonparticipating projects by using the Dodge database to identify all new commercial construction projects currently ongoing or recently completed projects in the program service area. The evaluators then identified projects that were ongoing at the same time as those in the program database. The evaluators identified 706 projects as ongoing or near completion.

From that list, the evaluators attempted to identify and eliminate any projects done with assistance from the program by examining addresses. This process identified 22 address matches, leaving 684 projects. The evaluators identified another 213 projects that matched program projects on the owner company name, contact name, phone number, or email address. These are not necessarily program projects, as a given owner may conceivably have both participating and nonparticipating projects. However, excluding those projects provided confidence that we had excluded program projects. During participant interviews, the evaluators planned to ask respondents about any nonparticipating project they completed, which would allow us to obtain information about any nonparticipating projects that may have been inadvertently excluded.

The total of 235 ongoing or recently completed projects excluded was close to the total of 279 ongoing or recently completed program projects seen in the program database. This provided the evaluation team with some additional confidence that the above process likely eliminated mostly nonparticipating projects, although it seemingly did not eliminate all of them. The remaining 471 projects formed the nonparticipant sample frame. From that frame, the evaluators sought to complete 30 interviews.

Interview Guide Preparation

The evaluators developed an interview guide to cover the applicable research topics. The team devoted part of the guide to program awareness, reasons for nonparticipation, the program's influence on the larger market, and perceptions of how the program can serve the market through enhanced design and education services. Additionally, the guide had questions

about the characteristics of non-participating projects and if recent energy code changes affected participation decisions.

Recruiting Respondents and Fielding Interviews

The implementation and approach to interviewing nonparticipants evolved over the course of data collection. The results section below describes these changes and why the evaluation team elected to make those changes. The initial contacts with nonparticipants revealed two things that surprised the team.

1. Many of the "nonparticipant" projects were for public entities, a group that prior evaluations have shown generally participate in the program because they have a vested interest in building efficiently. They tend to own and operate buildings for the long-term and are interested in long-term energy savings and they are often subject to "green" energy requirements from state policy.
2. The first five "nonparticipants" the evaluators interviewed were not in the target nonparticipant population because their project was located outside of the electric service territory (2), deemed ineligible by program staff (1), was residential (1), and had actually received program incentives (1).

These two initial findings resulted in the evaluators modifying their approach to the nonparticipant data collection effort because it no longer made sense to attempt the interview as originally designed. After consultation with program staff, the team elected to contact as many of the "nonparticipants" as possible to get a better understanding of their true status – were they nonparticipants, participants that the scrubbing process did not catch, or something else? In other words, how many of the contacts in Dodge were actual nonparticipants and how would the lessons learned from this effort affect the market penetration estimate? As noted earlier, prior program evaluations did not attempt to contact nonparticipants, so this approach provided new information for market penetration estimates.

Participants

Using program data, and in consultation with the program administrator, the evaluators prepared a sample of, and interview guide for, participating architects, building owners, and others associated with commercial new construction projects that received program services or incentives (participants). The evaluators then recruited respondents.

Sample Preparation

The spring/summer 2022 sample targeted building owners and their representatives whereas the winter/spring 2023 sample targeted the design community – architects and others that led projects.

For the first round of interviews, the evaluators identified a population of 279 projects using project data and contact data received in May 2022. These projects were underway or recently completed between November 2021 and May 2022. Based on feedback from program

staff, the evaluators selected a subset of these projects that had engaged the program beyond just receiving incentives for measures. That is, the projects received funding or technical support for holding early design meetings, conducting energy modelling, pursuing net-zero construction, or pursuing a package of incentives designed to increase efficiency.

The team selected these projects for the sample because they reflect the population of people that made more conscious decisions about their participation in the program and were more likely to have larger buildings. Projects that solely received prescriptive incentives would not have the same level of engagement with the program and would therefore be unable to answer many questions about their program participation and how they used the program to address key research questions.

For each of the sampled projects, the evaluators attached all associated contacts, up to seven people, associated with the project. Program staff reviewed the contacts associated with each project and identified the key person that the evaluators should interview about that project. That exercise revealed that there are 87 unique contacts associated with the sampled projects. Ultimately the evaluators completed 22 interviews.

For the second round of interviews, the evaluators identified a population of 293 projects using program data from December 2022. These projects were underway or recently completed from June 2022 through December 2022. Like the first round of interviews, the evaluation team selected a subset of these projects that had engaged the program beyond just receiving system-based incentives.

In the second round of interviews the evaluators prioritized speaking with the key designers of projects to address questions about decision making around the code compliance pathway, a research objective for the process evaluation but not relevant to this paper. The evaluators completed 35 interviews in the second round.

Combined with the first round, the evaluation team interviewed 57 participants or almost one-quarter of the population. As Table 1 shows, the distribution of completed interviews came close to the distribution of the targeted population. The evaluators interviewed slightly more participants with the highest level of engagement with the program – those working towards net-zero - and slightly fewer participants with the lowest levels of engagement – those receiving incentives combined with some design or modeling assistance.

Table 1: Total Targeted Population and Completed Interviews Across Both Data Collection Rounds

	Targeted Population		**Completed**	
Program Track	**Count**	**%**	**Count**	**%**
Whole Building to Net-Zero	104	41%	28	49%
Package of Incentives	50	20%	11	19%
Assistance with Early Design and/or Energy Modeling	98	39%	18	32%
Subtotal	252	100%	57	100%

Interview Guide Preparation

The evaluators developed an interview guide to cover the applicable research topics. Most important to this paper, the team devoted part of the guide to understanding program awareness, reasons for participation, and satisfaction with program elements.

Recruiting Respondents and Fielding Interviews

For both sets of participant interviews, the evaluator sent an initial recruitment email to each identified contact. The email explained the purpose of the research, the approximate duration of the interview (45 to 60 minutes), and the importance of their participation and offered a $100 gift card to all participants that completed an interview. The email stated that the evaluators would follow up with a phone call but also encouraged respondents to respond by email to schedule an interview. The team followed the initial email recruitment with phone calls and additional emails contacting individuals up to five times. Evaluators used MS Teams to conduct the interviews, and with permission from the respondent, recorded the conversations.

Results

Nonparticipants/Market Penetration

This section starts with an analysis that relies solely on a comparison of program project counts with all new construction project counts identified in the Dodge database, which produced results consistent with what was found before. Following this analysis is a more refined estimate, based on information obtained from efforts to survey nonparticipating contacts for projects in the Dodge database, which produced a much higher penetration estimate.

Following the approach used in 2017, which relied solely on the Dodge database and program data, shows that 54% of all commercial building projects participated in the program from 2019 to 2021, an estimate that falls in between the two prior estimates (Table 2).

Table 2: Overall Market Penetration, 2012 to 2021

Study Year Published	Years Covered by Data	Program Projects	All Commercial Building Projects (Dodge Database)	Estimated Market Penetration Rate Using Dodge Database
2015	2012 to 2014	Unknown	Unknown	58%
2017	2014 to 2016	1,532	3,219	48%
2022	2019 to 2021	2,300	4,291	54%

However, as noted above, results from the initial nonparticipant interviews and recruitment process led the evaluators to change their approach to nonparticipant data collection. As will be explained below, results of this effort revealed it was not valuable as a method to address many of the process evaluation questions and was more valuable as a tool to refine the market penetration estimate.

The first nonparticipant respondent represented a school district, an entity type that current and past research shows to have a high participation rate because schools keep buildings

long-term, making efficiency financially important to them, and they are subject to state "green energy" rules that require a percentage of their new construction projects to go towards renewable power and the associated efficiency improvements that often come with adding renewable energy to a project. This respondent revealed notable knowledge of the new construction program and stated that she typically participates in the program. Furthermore, she reported not participating in the project we identified, a remodel of two classrooms, because the program had denied her application. It was not clear why this project was denied. This experience of contacting a supposed nonparticipant and finding that their project was ineligible occurred multiple times, which led the evaluation team to re-examine their contact list. Had the evaluators erred in pulling the sample?

Examining the project titles of the sample frame revealed that the original criteria for excluding projects ineligible for program support, like road and bridge construction projects, was inadequate. An additional manual coding of project titles revealed that 42 of the 471 projects (9%) were ineligible for program support because they were outdoor projects (e.g., "softball field improvements"). The evaluators excluded these 42 projects from the sample, leaving the team with 429 projects.

The evaluators deduplicated the project list based on contact information and identified 287 unique contacts representing the 429 projects. The evaluators contacted and interviewed 65 of those 287 contacts about specific projects. Of the 65 projects covered in the interviews, 26 had participated in the program, five were "true" nonparticipants (that is, they were eligible for the program because they constructed or renovated a commercial building in program territory but did not participate in the program), and 34 were determined to be outside the program's target population. Table 3 shows the disposition of all 287 contacts identified.

Table 3: Participation Status of 287 Contacts for Dodge Data Projects

Category	Private Entity	Public Entity	Total	% of Reached	% of Reached, in Program Pop.
Total contacts	120	167	287	n/a	n/a
Not reached	91	131	222	n/a	n/a
Reached	29	36	65	100%	100%
Outside of program population[1]	12	22	34	52.3%	n/a
Within program population	17	14	31	47.7%	100%
Eligible ("true") nonparticipant	1	4	5	7.7%	16.1%
Program participant	16	10	26	40.0%	83.9%

[1]No project completed, not eligible for incentives, outside of program territory.

The above shows that about 84% of interviewed projects within the eligible population had participated in the program. Prior market penetration estimates relied on comparing program data to the population as represented by the Dodge data. They did not attempt to verify the Dodge data by talking to representatives of the unmatched projects. Taking that additional step

shows that the program has penetrated much more of the market than the previous estimates completed in 2015, 2017, and earlier in 2022, which all hovered around 50%.

Granted, the sample of interviewed projects was not large. The 84% figure is based on the 31 projects that were found to be within the program target population. However, the 90% confidence interval for that percentage is about plus or minus 11%, which still allows for a penetration estimate of at least 73% (and possibly as great as 95%). Further, the interview sample frame excluded 22 Dodge projects that were matched to the program's project tracking data based on address, and another 213 that could not be matched on address but whose project owners or contacts were identified in the project tracking data. Those projects are not accounted for in the above estimate and would only increase the penetration estimate if they were.

Still, it is possible that, owing to nonresponse bias, the 65 interviewees were not representative of the sample frame. One way to check the validity of the above estimates is to use them to estimate the total number of 2019-2021 Dodge projects that were program participants and to compare that to the known number of 2019-2021 projects (2,300). Table 4 shows this assessment. Using interview data (see Table 3, above), the evaluators estimated that 2,046 of the 4,291 Dodge projects within the service territory (47.7%) were within the target population. The 90% confidence interval provides low and high estimates of 1,611 and 2,482 projects within the target population, respectively. Applying the participant percentage of within-population projects from the interview data (83.9%), with the 90% confidence interval, produced estimates of 1,176 to 2,351 participating projects in the Dodge data.

Table 4: Estimated Number of Program Participant Projects in Dodge, 2019-2021

Parameter	**# / %**
2019-2021 Dodge projects initially identified as within program service territory	4,291
Percentage of projects in the target population, based on interviews (n = 65)	47.7%
90% Confidence interval around 47.7%	±10.2%
Estimated number of Dodge projects within target population	
Low estimate (4,291 * 37.5%)	1,611
Middle estimate (4,291 * 47.7%)	2,046
High estimate (4,291 * 57.9%)	2,482
Participant percentage of target population, based on interviews (n = 31)[1]	83.9%
90% Confidence interval around 83.9%	±10.8%
Estimated number of participant projects in Dodge, based on interview data	
Low estimate (1,611 * 73.1%)	1,176
Middle estimate (2,046 * 83.9%)	1,716
High estimate (2,482 * 94.7%)	2,351

[1]Of 65 interviewees, 31 were either participants (n = 26) or confirmed nonparticipants (n = 5), while 34 were outside the population.

The middle estimate of 1,716 participant projects in Dodge is somewhat below the actual number of 2,300 projects, while the high end of the range is very close to the actual number. Again, these estimates do not account for the projects eliminated from the sample frame because

they matched known participating projects by address (n = 22) or because they matched known participating project owners on company name or contact information (n = 213). These counts represent 3.1% and 30.2%, respectively, of the 706 ongoing or recently completed projects initially identified for the sample frame (see "Sample Preparation" section, p. 6). Recall that the sample frame consisted of projects that could be determined to be ongoing or recently completed. This was to ensure that the evaluators would be able to reach the appropriate decision-makers and that information about project decisions would have been relatively fresh. However, these percentages should be extrapolated to all 4,291 projects within the Dodge population. Doing so suggests that at least 134 projects, and perhaps a few hundred, should probably be added to the above estimates, bringing the middle estimate very close to the known number of participating projects.[1]

Participants

Participant interviews with those constructing a building beyond one or two measures above code revealed that specific and long-term program support beyond measure-based incentives was critical to their choosing to build a highly efficient building.

Facilitation and Funding of Early Design Meetings

Most building owner participants that received program assistance with early design reported the assistance led to positive outcomes for their projects and about half provided specific examples about how the assistance was helpful. Program assistance in the early design phase provided them:

- Validation and reinforcement of design ideas they had in mind before the project started.
- An opportunity to inform all stakeholders working on the project about program requirements.
- An opportunity to have the commissioning agent speak with all other project stakeholders and help the team understand what the commissioning agent would be looking at upon project completion.
- The opportunity to use one meeting to discuss two projects that were happening simultaneously with the same design team. Because it can be hard to schedule all the stakeholders for a meeting, the flexibility of holding one longer meeting to review both projects was appreciated.
- The ability to talk about solar options for their project. According to one respondent, the early design assistance ultimately led to the inclusion of solar on their project.

Designer respondents emphasized the important role the early design meeting, paid for and coordinated by program staff, played in bringing team members together at the onset of the

[1] Extrapolating the 3.1% confirmed as participating projects to 4,291 yields 134 additional projects, bringing the middle estimate to 1,850 (1,716 + 134), which is 450 shy of 2,300. Assume just 74 of the 213 projects with company or contact information that matched program tracking data were in fact participating projects (it is possible that the address listed for a project in the project tracking data could differ from that listed in Dodge). Extrapolating that to 4,291 would yield the additional 450 participating projects to reach 2,300.

project. According to respondents, these meetings served as an opportunity for all team members (designers, consultants, contractors, owners, commissioning agents, and others) to discuss project goals, design plans, general organization, and timelines.

> *"One of our goals is to have sustainability, visioning assurance on every project. And having the incentive to do that early design meeting and then continue the analysis past that makes that so much more possible than if [program support] didn't exist… We're also able to talk about other sustainability goals as well, so it makes it really, you know, more broad and holistic too."*
>
> *– Architect of a government building*

Although some designers noted they hold similar early design meetings for their non-program projects (those not in the program territory), having the time and money to devote additional resources to the planning process helped facilitate project development and planning. Moreover, some respondents noted that this incentive opportunity feels unique to the program, explaining that to their knowledge, this sort of incentive does not exist elsewhere.

> *"[The design assistance incentive is a] good way to force the project team to be organized about what they were doing and get on the same page about what was happening. Get everyone marching down in the same direction. Good way to circle everyone up and kick things off."*
>
> *– Developer of market-rate multi-family building*

Facilitation and Funding of Energy Modeling for Project

Building owner respondents that used modeling assistance appreciated the support with one respondent describing the support as a "critical" aspect of the program. Five of the seven owner respondents that reported receiving modelling assistance reported it led to positive outcomes for their projects. Four of the five appreciated the ability to run "what-if" scenarios such as how adding insulation to the roof would affect the rest of the design and one noted that program support ensured modelling occurred. The four specified that modeling assistance helped the construction team do modeling that helped them:

- Ensure the project still complied with code.
- Appropriately size the solar array for the project.
- Examine the project more holistically than they could have otherwise and provided information they could take to their executive team without confusing them with technical jargon.

Eleven designer respondents were able to provide some details about the assistance received, and they all reported high levels of satisfaction with the assistance. One respondent noted they would not have done energy modelling if not for the incentive, another respondent noted the energy modeling is what pushed the project to construct to a net-zero level, while another respondent indicated the energy model allowed them to assess daylighting options, which they otherwise would not have been able to pursue. One respondent indicated the program

needs to emphasize energy modelling to program participants more and provide additional financial support for it to convince others to do it.

Identification of Resources to Support Solar and Sustainability Goals

Most building owner respondents reported using solar or expressed interest in solar for their existing or upcoming projects. Of the 22 owner respondents, 18 either installed (8), will install (4), or are considering installing (6) solar on their project, using program support. Of the four respondents that did not consider solar for their current project, two, one school representative and one developer, indicated their future projects will include solar.

Five respondents, mostly affordable housing agencies, noted that the solar support from the program was pivotal to their decision-making process about whether (or not) to install solar. Four affordable housing agencies reported that program support for solar gave them information and incentives that led to installing solar or seriously considering solar for their project.

Program support for solar is important to respondents, even when required to install solar. Of the eight governmental organizations, four specified that they were installing solar, in part, because of state requirements. Even in these cases several government entities suggested the program support made the solar installation process easier because the support gave them a roadmap to follow. For example, one school respondent stated that the program representative "was super helpful for explaining" the necessary steps to complete a solar array. Without program support, the inclusion of solar at this school may have been a longer, more arduous, and potentially more expensive task.

The solar support from the program enabled one owner respondent to appropriately size their array. Without the solar support, combined with the modeling support, this developer respondent was concerned that they would not have emphasized efficiency enough and built too large a solar array to compensate for the lack of efficiency.

Twenty-two designer respondents had solar panels installed (n=15) or included the necessary infrastructure to support solar in the future (n=7). These designers cited a variety of reasons for installing solar panels or making their building solar panel ready. As noted earlier, public agency representatives mentioned state requirements that de facto require solar. Respondents representing private projects that included solar reported doing so because of interest in making a "green building" and because the financial support from the program made them realize the long-term energy savings they could realize.

Respondents that were constructing a net-zero or close-to-net zero building reported that the program helped them achieve their organization's sustainability goals or commitments to energy efficiency. According to these respondents, the program did not influence the building owners' interest in net-zero or close-to-net zero construction but it did help them realize those goals by providing a pathway throughout the construction process.

Outreach Staff Assistance During Project

Multiple designers commented on the program outreach staffs' responsiveness, knowledge, and problem-solving skills, and respondents very much appreciated program and

financial support. Respondents also appreciated program staff's regular communication and check-ins to ensure projects were running smoothly.

> *"Having a program that has checklists and things we need to consider. Having a third-party involvement is a value. A third party [like the program] verifies, or asks questions, it is the collaborative process that makes the program valuable. They are sounding boards. The incentives are helpful, and they offset some cost but the sounding board and collaboration is key."*
> *– Architect of market-rate multi-family building*

Respondents appreciated how the program tries to have a presence in their communities; they are public facing and attend events which makes the program a trusted entity in the community.

> *"I like how the program administrator is not just about the programs, but [they] have folks in communities attending other events and hearing what's going on in communities and hearing people's needs. Incredibly meaningful."*
> *– Architect of government building*

Discussion

Previous market penetration estimates have likely been underestimating the actual reach of this program because previous work did not attempt to contact nonparticipants and understand their projects. This research took that step and this work suggests that the market penetration rate of the program could be in the range of 73% to 91%, a notable increase from the roughly 50% estimate provided in previous research. This higher estimate is a result of the evaluators trying to reach nonparticipants to talk about reasons why they do not participate and finding very few actual nonparticipants who are in the program's target market. Therefore, when attempting to estimate market penetration of a new construction program, this research suggests that evaluators should verify that the denominator in the estimate, the population of projects, is accurate. Nonparticipant research is a key way to conduct that verification.

A high market penetration estimate for a new construction program does not mean a program has matured beyond its use. Instead, it means there is an opportunity to get those taking advantage of the program's measure-based incentives exclusively – the program's low-hanging fruit – to participate in the more comprehensive elements of the program leading up to and including net-zero construction. This program and programs with similar characteristics need to emphasize the importance of going beyond the low-hanging fruit incentives by encouraging participants to pursue the deeper savings available to them. Focus outreach efforts on not just the potential for long-term energy savings but some of the non-energy benefits participants reported. When trying to convince participants to do more efficient projects, highlight program benefits such as: improved workflows that resulted from the early design meetings, identifying that solar was possible for a project, identifying desired building features, such as daylighting, they could not have identified without modelling assistance, and assistance in meeting an organization's sustainability goals. These program services provide relatively small financial incentives relative

to a multi-million-dollar commercial building, but the design team's reported benefits of these services suggest that these services are worth far more than just lowering the cost of the project.

It is also possible that participants taking advantage of the program's low-hanging fruit may not appreciate the aspects of the program that the more engaged participants reported. Future research should investigate what may trigger the less engaged participants to do more but a logical place to start would be emphasizing the aspects of the program that the more engaged participants valued.

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