

# Commercial PACE Financing and the Special Assessment Process: Understanding Roles and Managing Risks for Local Governments

Greg Leventis and Lisa Schwartz, Lawrence Berkeley National Laboratory

## Executive Summary

This issue brief is for local governments that are well-positioned to participate in a commercial property assessed clean energy (C-PACE) program but are looking to inform a decision about whether to join or create a program. This resource addresses two specific barriers these local governments may face regarding C-PACE programs: (1) uncertainty about the likelihood of tax foreclosure on properties in default of C-PACE payments and the risks local governments bear, and (2) uncertainty about the staff labor commitment associated with administering the program, including the execution of the special tax assessment process.

### Key findings from this issue brief include:

**To date, defaults and tax foreclosures happen very rarely, but delinquencies do occur.**

- Since 2008, only one C-PACE project has defaulted—out of about 1,870 completed projects. Delinquencies (i.e., late payments) are more common; however, lenders and program administrators can work with property owners, mortgage holders, and other creditors to get payments back on track. This issue brief includes some important considerations and lessons learned to help local governments better prepare for possible defaults.
- Unless the local government has directly provided capital or credit enhancement for projects, a foreclosure will not impact the jurisdiction's financial standing. Local governments are not responsible for making C-PACE payments to third-party lenders, even if the participant misses payments (PACENation 2017).

**A trend toward third-party administration signals reduced local government effort.**

- Increasingly, C-PACE program sponsors are adopting program administrative structures in which third parties take on many or most administrative responsibilities, even those traditionally the responsibility of local governments. This can include recording, billing, collections, remittances, and even enforcement (although any delegation of enforcement authority should be confirmed). The implication of delegating these tasks is a reduction in required local government effort.



## Commercial PACE Working Group Issue Briefs

This issue brief is the first in a series of U.S. Department of Energy (DOE) and Lawrence Berkeley National Lab (LBNL)-produced briefs intended to inform state and local governments about specific barriers to adopting or implementing C-PACE programs. The issue briefs are informed by input from participants in DOE's C-PACE Working Group, which includes state and local governments, third-party program administrators, capital providers, and many other organizations.

This issue brief addresses the complex topic of special property assessments. For readers unfamiliar with C-PACE and the role of state and local governments, consider starting with a foundational C-PACE resource prepared by DOE and LBNL, *Lessons in Commercial PACE Leadership: The Path from Legislation to Launch*. The resource aims to fast-track the setup of C-PACE programs by capturing best practices and lessons learned from early adopters. The report includes a glossary of terms, summarizes interviews and anecdotes from leading practitioners, and provides key additional resources.

Learn more about the C-PACE Working Group: [energy.gov/eere/slsc/commercial-pace-working-group](https://energy.gov/eere/slsc/commercial-pace-working-group)

Download *Lessons in Commercial PACE Leadership: The Path from Legislation to Launch*: [energy.gov/eere/slsc/downloads/lessons-commercial-pace-leadership-path-legislation-launch](https://energy.gov/eere/slsc/downloads/lessons-commercial-pace-leadership-path-legislation-launch)

<sup>1</sup>Minor changes were made in January 2020.

---

## Recording, billing, collections, and remittances are the main C-PACE special assessment tasks.

- Third-party program administrators or lenders often carry out some or most of these tasks, and the market is trending toward increased third-party (and decreased local government) responsibilities.
- Even where local governments take on these tasks, C-PACE assessments will generally require similar, or the same, effort as other special assessments.
- In general, C-PACE assessments only make up a small fraction of the overall number of special assessments a local government will process in a given year.

## The enforcement process follows existing law (same as other special assessments).

- An emerging development in some states and local governments is allowing enforcement to be carried out by third parties, which could expedite the resolution of nonpayment for capital providers and limit local government involvement. However, there must be a state and local legal framework for allowing third parties to carry out enforcement and a clear process for enforcing the lien.<sup>2</sup> Delinquencies in C-PACE payment have occasionally occurred, but are usually resolved through coordination among the taxing authority and the affected parties to bring payments current.

## Introduction

Commercial property assessed clean energy (C-PACE) financing can provide multiple benefits for states, local governments, and the communities they serve, including economic development, job creation, increased property values, and advancement of energy goals. However, local governments may be cautious about joining or creating C-PACE programs, due to (1) uncertainty about the staff labor commitment associated with administering a C-PACE program, and (2) uncertainty about the likelihood of tax foreclosure (or tax sale) on properties, triggered through default of C-PACE payments. By considering the special assessment process, the options for program administrative structure, and how the two interact, local governments can estimate the potential commitments associated with joining or creating a C-PACE program.<sup>3</sup> These three factors vary according to jurisdiction, and this issue brief provides a framework for local governments to assess their specific circumstances.

The framework addresses how C-PACE may affect local government operations, the roles a local government may play, and what that means for local government's staff and resource commitments. The following questions are important for each jurisdiction to keep in mind while reading this issue brief: What does existing law say? How does the special assessment process work? Who is responsible for performing the special assessment? How long does the special assessment take? Are statewide or regional C-PACE programs available to opt into? What are the implications for the level of effort and risk the local government must take on?

This brief first covers the C-PACE process and administrative models. Next, it covers the special assessment process and then homes in on C-PACE assessments. The conclusion summarizes key findings and lessons learned.

## Overview of the C-PACE Process and Administrative Models

This section describes key points in the C-PACE process, different program administrative models and why they matter, and explains the roles that various entities may play, which can directly impact the level of effort required for a local government participating in C-PACE.

### C-PACE Process

Enabling C-PACE statutes—passed at the state level—describe the role of local governments in a C-PACE program. Existing law typically vests statutory authority to impose, bill, collect, and enforce special assessments or other taxes with local governments (i.e., municipalities, counties, or both). C-PACE statutes “piggyback” on these existing authorities. The state legislature must determine energy improvements constitute a public benefit similar to other public improvements (e.g., roads and water lines), which the local government secures through levying special assessments. Enabling C-PACE law generally dictates that, in accordance with the state's existing laws for collection of special assessments, local governments will collect C-PACE special assessments in the same manner as real property taxes or special assessments in the state.

Figure 1 illustrates one way the C-PACE process might unfold for a participating project, including the entities that may be involved and potential transactions among them. Many variations on each of these steps exist, as program models and legal and policy contexts may differ greatly. For example, in some jurisdictions the property owner may apply for funding and seek the mortgage holder's

---

<sup>2</sup>Some states that aim to allow third party enforcement “have attempted to address these concerns by making changes to their state and/or local enabling legislation to clearly differentiate the legal classification for the C-PACE assessment and also describing alternative enforcement procedures by which the C-PACE assessment may be legally enforced by a private party” (Coleman, 2019).

<sup>3</sup>A special assessment is a recording of a liability to the local government (i.e., payment obligation) in exchange for an investment that benefits the property owner. In the case of C-PACE, a property improvement usually involves energy enhancements. A lien on the property secures the assessment and obligates the property owner to repay the investment in the improvement (LBNL 2016). C-PACE assessments are voluntary and typically viewed as special tax assessments because they are separate from actual real property taxes and are voluntary rather than mandated—they do not apply to all properties in a jurisdiction.

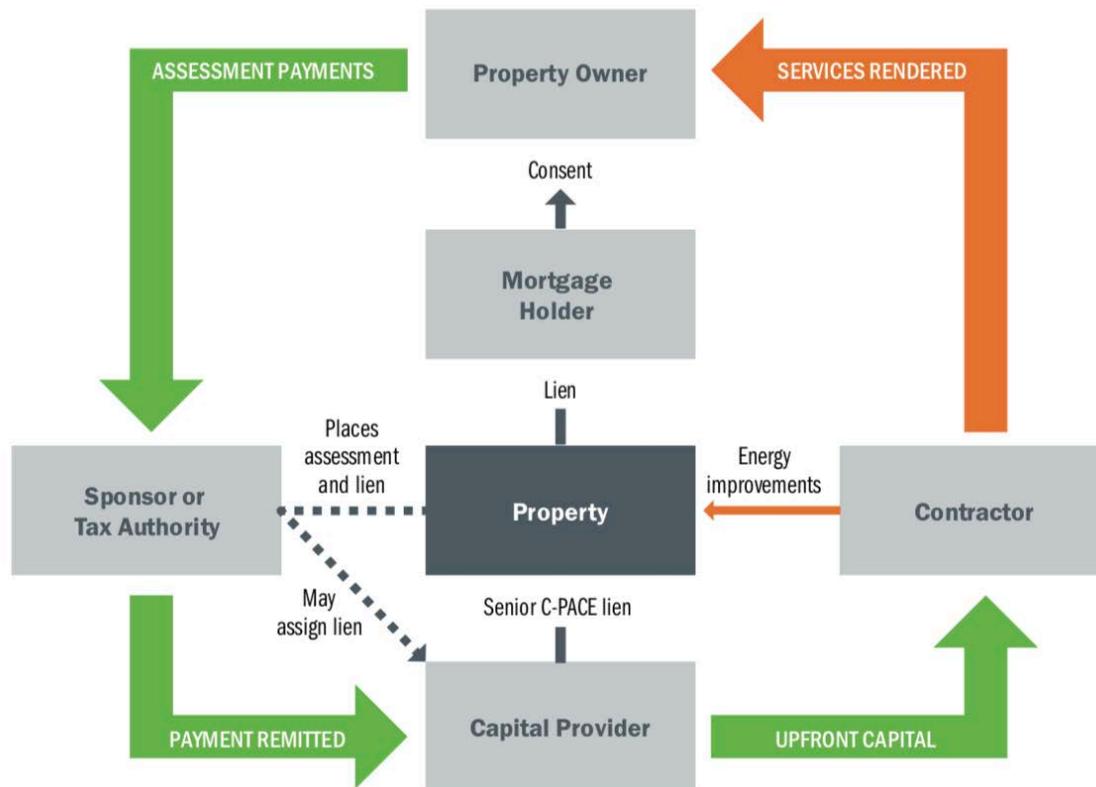


Figure 1. A simplified overview of one C-PACE process model. Flows of funds are shown in green, with flows of goods and services in orange.

consent to secure the special assessment with the mortgaged property.<sup>4,5</sup> When consent is granted and the project is approved, a capital provider—a third-party capital provider, the district itself, or the local government, depending on how the program is set up—furnishes the project funds to make the approved property improvements. The property owner repays the project funds through the sponsor or tax authority (i.e., the local government, an outsourced program administrator, or a regional or state government-sponsored entity), who, if they are not the capital provider, remits the payments to the capital provider.

## C-PACE Program Administrative Models

The administrative structure of a C-PACE program determines which entities (e.g., local government, higher-level administrative entity, or a third party) take on various program roles and responsibilities and can significantly impact the level of effort required from a local government. The administrative structure is often determined in the state’s enabling statute, particularly for statewide programs, as described below.

Table 1 describes various program models and provides examples of where each model has been employed. For example, under the limited or no state support model, the Sonoma County Energy Independence Program (SCEIP) manages all aspects of the program, an approach that was more common when C-PACE first began. In contrast, the strategic state support model in Texas authorizes program administrators to perform nearly all program tasks. Local governments only need to perform three tasks: record the lien on the property, include a notice of the assessment with the property tax bill and, if necessary, collect past-due assessments (Heydinger, 2017).

The industry is trending away from local government administration of programs and toward more standardized programs administered by third-party entities, such as a statewide program administrator or joint powers authority. If a third party administers a program (e.g., a nonprofit organization, state-sponsored administrator, or private sector administrator), a spectrum of involvement can exist for the local government, from significant involvement, such as taking on all special assessment process tasks, to nearly no involvement.

This brief next looks at the general special assessment process (responsibilities of a local government, regardless of its involvement in a C-PACE program) then revisits the process, examining the implications and considerations of adding a C-PACE program. Because both the special assessment process and the structure of C-PACE programs can differ significantly, the focus is on the essential parts of each—high-level tasks that will be a part of any special assessment or C-PACE process.

<sup>4</sup>Obtaining mortgage holder consent is not required in every program but is best practice.

<sup>5</sup>Another potential variation from the model depicted in Figure 1 is how funds may be disbursed. In some jurisdictions, lenders provide project funds to the property owner; in others, funds may be disbursed to the contractor. Project funds may be disbursed as an upfront payment or in tranches as project milestones are completed (usually for larger projects).

**Table 1. C-PACE Program Administrative Structures (adapted from NASEO 2016)**

Model	Description
Statewide	<ul style="list-style-type: none"> <li>• One statewide administrator (government agency or affiliated entity); may hire a third party to take on some or many of the program administrator roles;</li> <li>• Local governments opt into the statewide program, as no locally administered programs exist;</li> <li>• Structure directed by enabling legislation;</li> <li>• Examples: Colorado, Connecticut, Rhode Island, and Utah.</li> </ul>
State and Local Option	<ul style="list-style-type: none"> <li>• Statewide program coexists with locally or privately administered programs;</li> <li>• Structure directed by enabling legislation (often allows multijurisdictional or joining programs);</li> <li>• Implementation may or may not be statewide but is open to any locality that opts in;</li> <li>• Examples: Michigan and New York.</li> </ul>
Strategic State Support	<ul style="list-style-type: none"> <li>• State gives guidance (e.g., technical assistance and model forms) to local and private program administrators;</li> <li>• Following the state guidance is not required; programs can access resources developed at the state level or operate as they see fit; and</li> <li>• State agencies or state-level actors may be involved in stakeholder engagement. Texas launched under this structure, and several other states have expressed interest.</li> </ul>
Limited or No State Support	<ul style="list-style-type: none"> <li>• No (or limited) state-level involvement;</li> <li>• Programs are locally or privately driven;</li> <li>• Examples: California and Ohio.</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Programs from multiple states collaborate to coordinate program standards across states;</li> <li>• The Mid-Atlantic PACE Alliance is in the process of coordinating for consistency across multiple programs in Maryland, Virginia, and Washington, D.C.; and</li> <li>• To date, this has been voluntary and has not involved changes to existing administrative structures.</li> </ul>

## Special Assessment Process Overview

Special assessments (which are separate charges from real property taxes) pay for specific, publicly owned goods and services that provide public value, such as fire protection, sewer systems, schools, and sidewalks.<sup>6</sup>

The tasks of levying (i.e., adding), billing (i.e., invoicing), collecting, and enforcing special assessments—collectively, the special assessment process—can vary widely from state to state and by local jurisdiction. These differences can include how jurisdictions carry out special assessments and what entities are responsible for the overall process, as well as specific tasks within the process. For example, different tasks may be the responsibility of the treasurer’s office, assessor’s office, tax collector’s office, or recorder’s office. For the local government to charge a property a special assessment, the property must be in a special assessment district. Although practice varies, certain tasks will be a part of any special assessment process, as described below.

## Recording

Recording is the process of formalizing an assessment on an individual property by documenting the existence of a lien on the local government’s public land records.<sup>7</sup> This may be in the form of a certificate, memorandum, or a full agreement. The process serves as evidence of the existence and terms of a special assessment on the subject property, allowing any party reviewing the title record of that property to see the assessment. These processes create a legal obligation on the property, involving filling out forms with information about the special assessment district, the participating property, and the obligation, and entering that information into a system used to maintain the public record (e.g., the tax roll).<sup>8</sup>

<sup>6</sup>C-PACE, in contrast, works through the special assessment process as a way to pay for privately owned goods (e.g., building energy improvements) that provide public value, such as energy savings and associated benefits (SCEIP, 2012).

<sup>7</sup>A lien is a “legal right to a property in the event of nonpayment of an assessment or other obligation (e.g., mortgage). A taxing authority places the lien to secure a special assessment and may assign the lien to another party” (Leventis, Schwartz, Kramer, & Deason, 2018).

<sup>8</sup>“The [tax] roll serves as legal evidence of tax liens. Components included in the tax role [sic] may include: valuation date, taxable status date, property location and class, total assessed value of the property (including land and improvements), full market value, assessor’s oath, etc.” (<https://www.investopedia.com/terms/t/tax-roll.asp>). For example, the County of San Mateo, California, requires information about the special assessment district, total amount of the assessment, total number of parcels in the district, current contact information for property taxpayers, the resolution authorizing the charges, and the compensation agreement with the county (<https://controller.smcgov.org/special-assessments-taxes-or-charges>).

---

## Billing

Once a local government officially records an assessment on a property, it can bill and collect taxes for the purposes of the different assessments on that property (i.e., property tax and special assessments). The jurisdiction will determine the amount to charge each property based on criteria such as the needs of the district and the assessed value of the property. Billing involves invoicing the owner of the property for the assessed amount owed. Administrators may assign each special assessment district a code to identify and distinguish it from other charges. Usually, a billing software system generates invoices that include the property tax assessment, plus any special assessment charges. The owner receives the bill by mail or electronically. Frequency varies by jurisdiction but is commonly once or twice a year.

## Collections and Remittances

Bills include due dates for payment to the local government. If the local government receives payment after that date, the owner is delinquent. Often, a grace period comes after the deadline, during which the local government assigns no penalty.<sup>9</sup> The responsible government department deposits remittances (i.e., payments sent) into the accounts of each of the special assessment districts, often automated through the software system.

## Enforcement

If a property is delinquent on its taxes or special assessment payments after a certain period (which varies by jurisdiction), the property is in default. Depending on the underlying statutes for how local governments enforce special assessment liens, the lienholder may enforce the lien through a tax sale. A tax sale may be a tax deed sale (i.e., a direct foreclosure on the property), whereby proceeds from the sale of the property cure the delinquent assessment, or a tax lien sale (i.e., selling the assessment lien on the property), whereby proceeds from the sale of the tax lien cure the delinquent assessment.<sup>10</sup>

Tax lien sale and foreclosure practices differ by state. Generally, after a certain period of delinquency, a notice of default is filed with the recorder's office, with any other lienholders, and with the public (e.g., in the newspaper) (Loftsgordon, n.d.). The borrower then has a grace period to pay delinquent obligations. If the property owner does not pay off the arrears (i.e., the amount owed), the lienholder or local government registers a notice with the recorder's office, and the property or lien goes to auction.<sup>11</sup> The proceeds pay off the creditors in order of seniority.

## C-PACE in the Special Assessment Process

Just as the special assessment process may vary widely by jurisdiction, C-PACE program administration models and task delegation vary by jurisdiction, with important implications for the participation of local governments.

State-enabling legislation governs the C-PACE process. Such statutes may also reference other applicable state laws and local requirements. Local governments may be required to approve ordinances to formally adopt C-PACE in their jurisdiction. Where enabling legislation, other laws, and local ordinances do not provide specific guidance, the program administrator, the capital provider, and the property owner typically use contracts to settle how they will carry out unaddressed aspects of the process (Sherman, 2018). A significant implication is that enabling legislation and other laws may directly delineate whether local governments are authorized to delegate process tasks (and what part of those tasks) to third parties. Of particular importance is whether a local government may assign the C-PACE assessment lien. Examples of third-party assignment exist for each of the C-PACE process steps, in whole or in part. Some programs (e.g., Missouri, Texas, and Arlington County, Virginia) use third parties for all or nearly all tasks.

C-PACE-enabling legislation and other laws may also dictate the processes themselves (e.g., whether the lender can bill the C-PACE charges directly and separately or whether they must appear on the property tax bill, requiring the local government to take some part in billing).<sup>12</sup> Delegating these tasks gives rise to important considerations at each stage of the process.

---

<sup>9</sup>Once assessment payments are delinquent, local governments may apply penalties in the form of significant interest charges to the delinquent amount. In some states, local governments may auction outstanding tax debts to third parties, sometimes known as a "tax lien sale." In these cases, the auction winner pays the outstanding debt, collects the penalty interest, and can take ownership of the property after a certain amount of time—see the Enforcement section later in this brief. Depending on state laws and local requirements and processes, the time between a payment being delinquent and a tax foreclosure could be several years.

<sup>10</sup>Twenty-nine states conduct tax lien sales: <https://www.investopedia.com/terms/t/tax-sale.asp>. Once the lienholder sells the tax lien, the taxing authority should be able to recoup unpaid taxes. Tax lien sales may eventually lead to foreclosure and transfer of the property to the party that buys the lien.

<sup>11</sup><https://www.zillow.com/foreclosures/overview/what-is-a-foreclosure/>

<sup>12</sup>In Massachusetts, for example, a C-PACE charge must appear on the property tax bill, meaning that the program cannot delegate billing to a third-party lender (O'Malley, 2018).

## Program Administration

A local government may need or elect to be involved in one or more of the following program administration tasks:

- Program marketing
- Generating project leads
- Determining eligibility
- Funding projects
- Engaging third parties
- Overseeing third parties.

Whether and how the local government participates in these tasks determines their required effort level. Typically, other entities perform portions of these tasks. For example, determining eligibility can include underwriting (usually by the lender); processing applications and additional documentation to ensure that applicants meet any minimum program requirements (usually outsourced to the program administrator); and verifying that an applicant can legally enter into a contract on the property—which can sometimes be less straightforward and require more time to confirm (e.g., if the property has multiple owners).

Where local governments engage third parties as program administrators, they may identify and recruit potential candidates that are a good match for the program and oversee their work.<sup>13</sup> Even where local governments are not the C-PACE program administrator, they may encourage building owners to participate through promotion of the program (e.g., through traditional marketing, a website, or social media).

## Considering C-PACE in Each Step of the Special Assessment Process

As illustrated in Table 2, a local government’s level of effort to participate in C-PACE may be gauged by three factors: (1) how much of the process the local government can and will delegate; (2) the number of projects per year; and (3) effort to complete an individual project, if the local government is in charge of developing projects. Following Table 2 is an outline of the major steps of the assessment process and the local government’s role in and responsibilities for each step.

**Table 2. C-PACE Process Tasks: Drivers of Required Level of Effort**

Potential Issues	
(1) How Much of the Process the Local Government Can and Will Delegate	<ul style="list-style-type: none"> <li>• Local governments often delegate much of the C-PACE process to third parties, depending on what program administrative structure allows and what they feel is appropriate and necessary;</li> <li>• What parts of the process may be delegated depend on existing law and the C-PACE program structure;</li> <li>• For some programs, the local government manages all process steps (e.g., SCEIP); for others, the local government has virtually no involvement (e.g., Show Me PACE, Missouri) (Carlock, 2018; Campbell, 2018); and</li> <li>• For programs administered at state or regional levels, local governments tend to assume at least some process roles when they opt into the program. The industry trend is toward programs in which local governments take on fewer of the special assessment process responsibilities.</li> </ul>
(2) How Many Projects a Program Does Each Year	<ul style="list-style-type: none"> <li>• Although most C-PACE programs are growing, most process only a few projects per year;</li> <li>• For programs administered over a wide geographic area with multiple participating local governments, only a portion of projects will be in any individual jurisdiction—even for programs with a significant project volume;</li> <li>• In 2017, the median number of projects per program was two (i.e., half of all programs in 2017 had two or fewer projects)<sup>14</sup> (PACENation, 2018); and</li> <li>• A program’s number of projects varies by year.</li> </ul>
(3) How Much Work an Individual Project Will Take	<ul style="list-style-type: none"> <li>• Larger projects and projects in which the ownership structure of the property or mortgage holder is complex (e.g., an LLC or trust where the decision maker is not immediately apparent, or legal authority to enter a contract must be determined) take more time;<sup>15</sup></li> <li>• Sales of C-PACE portfolios or individual projects may mean projects must go through the recording stage multiple times to ensure the public record accurately reflects the current lienholder;</li> <li>• Enforcement actions could require added staff time and, potentially, effort by legal counsel. A few programs allow delegation of enforcement to a third party (e.g., a lender or program administrator)(Campbell, 2019). Because lenders have made the vast majority of C-PACE loans in jurisdictions in which local governments are directly or operationally responsible for enforcement (many jurisdictions that allow third party enforcement are newer programs and most have not yet closed projects), some capital providers are “cautiously evaluating...markets [that allow third party enforcement]” (Coleman, 2019).</li> <li>• The time spent recording, billing, collecting, and remitting payments can be minimal. It should be approximately the same level of effort as special assessments more generally. Local governments may charge fees to cover costs of the process.</li> </ul>

<sup>13</sup>Missouri’s Show Me PACE program, for example, has a representative from each participating local government on an advisory board for the program (Campbell, 2018).

<sup>14</sup>Programs range from those limited to and run by a single local government, to statewide programs involving dozens of local governments, to program administrators operating in multiple states.

<sup>15</sup>Each project will be different in terms of staff time required. SCEIP, in which Sonoma County is responsible for all aspects of the program, reports spending around 6-8 hours on straightforward projects, which turn around in a few weeks; more complex projects could take several months to turn around (Carlock, 2018). Boulder County, which participates in Colorado’s statewide program and handles C-PACE special assessment tasks for the program, says that each project takes minimal time (Weissmann and Allshouse 2018).

---

## Establishment of Assessment Lien

The local government must first legally establish the assessment, depending on any requirements laid out in the enabling state statute or local statutes, as well as the guidelines and documents adopted by a program administrator. Typically, the local government or its representative legally establishes assessment in the following ways:

- Enters into some form of contract with the property owner
- Imposes a special assessment on a particular property through the adoption of a resolution
- Adds the special assessment payment amount as a charge on the property tax bill.

## Recording

Recording for C-PACE is generally similar to recording for other special assessment districts, where the local government is the entity responsible for adding information about a special assessment to the public record, regardless of C-PACE program structure. Depending on the enabling statutes or documents adopted by a program administrator, to perfect the legal validity of a lien, it may be necessary to add (“certify”) the relevant assessment payment installments (or schedule of payment installments) to the tax bill.

Typically, the local government receives documents and enters the information into the public record. If a local government uses an online system, however, adding that documentation to the public record is essentially delegated to a third party (e.g., the lender or third-party program administrator).

For a traditional special assessment district, recording is a one-time task; however, C-PACE lienholders may sell their C-PACE loans to other parties or into secondary markets. If a third-party lender is the original party listed to receive assessment payments, the local government will need to record the reassignments so that it knows where to direct remittances if it is responsible for that task.<sup>16</sup> This takes about the same time as the original recording (Dykes 2018; Weissmann and Allshouse 2018).

## Billing, Collections, and Remittances

Together, billing, collections, and remittances (i.e., segregating and distributing the C-PACE portion of the property tax payment to the right lender) are the main ongoing tasks in the C-PACE process. In most jurisdictions, these activities occur once or twice per year.<sup>17</sup>

Upon receipt of a C-PACE assessment payment from a property owner, the responsible government department remits the amount received into the appropriate account designated by the program administrator (i.e., the local government, an outsourced program administrator, a statewide entity, or a capital provider). Tax bills typically break out C-PACE special assessments as a separate line item (or charge) from the real property taxes and other special assessments, although the C-PACE assessments may appear in a separate bill. In addition, the amount of an individual C-PACE assessment installment is not calculated based on a mill rate like property taxes, but is simply a reflection of the fixed annual payment of principal and interest on the original C-PACE financing amount.<sup>18</sup> In other words, local governments do not calculate C-PACE special assessment installment amounts, but rather, the program administrator typically provides the local government a schedule for the fixed payment amounts, for a specified term, for each subject property to add to the property tax bill.

If the C-PACE statute specifies that delinquent C-PACE assessments should be treated like other delinquent property taxes, the local government with the statutory right to bill and collect, or its assigned representative, can collect C-PACE special assessments as part of its regular billing and collection procedures for real property taxes and other special assessments. Enabling legislation and local requirements dictate what is possible. For example, Massachusetts law requires that the C-PACE charge appear on the property tax bill (O'Malley, 2018), whereas in Texas, lenders generate and send their own bills to participants.<sup>19</sup>

Local governments often use information technology (IT) to manage billing, collections, and remittances. Types of IT systems vary widely, from custom systems made specifically for one entity, to off-the-shelf systems that come with technical support.<sup>20</sup> Some systems have not been able to accommodate a flat payment and may not be able to break out the difference between principal and interest. Local governments may need to modify these systems manually or enlist a third party to carry out these tasks (Gabrielson, 2018). The capacity to add these features is system-specific—for example:

---

<sup>16</sup>In some cases, the program administrator oversees remittances and is listed in the public record, so the local government would not need to record a sale of the loan.

<sup>17</sup>In some jurisdictions, authorities may remit C-PACE payments much more frequently (for example, up to 12 times per year in Colorado) (Weissmann and Allshouse 2018).

<sup>18</sup>The mill rate is the amount of tax payable per dollar of the assessed value of a property. The mill rate is based on ‘mills.’ It is a figure that represents the amount per \$1,000 of the assessed value of property, which is used to calculate the amount of property tax” (<https://www.investopedia.com/terms/m/millrate.asp>).

<sup>19</sup>If a lender collects payments, there is no need to remit the payments to another party. In some programs, the local government remits payments to the third-party program administrator, who in turn remits payments to participating lenders. Either approach has advantages from a lender’s perspective. Direct billing gives the lender more flexibility and control, whereas including the C-PACE charge on the property tax bill could potentially lead to higher repayment rates in jurisdictions that do not allow partial payments of tax bills.

<sup>20</sup>In some states, one software company may dominate the market, serving many local governments’ IT system needs for the special assessment process. In Connecticut, this has worked to the program’s advantage; one software company serves most local governments in the state. The Connecticut Green Bank, the statewide C-PACE program administrator, worked with this company to create an adder that handles the C-PACE assessments so most local governments are able to include them in their billing (Dykes, 2018).

- Sonoma County, California, has an older, custom system but was able to add C-PACE to bills through the system in the same way it adds a charge for other special assessment districts, such as fire stations or school districts (Carlock, 2018);
- Arlington, Virginia, decided to minimize its role in private C-PACE transactions and has delegated responsibility for billing and collections to capital providers. In the process, the county avoided significant costs to modify its IT systems for a small volume of C-PACE transactions annually (Dicke, 2018); and
- In Colorado, the statewide program administrator provides the C-PACE payment amounts to local governments. The local governments annually add the charge to the tax bill once the statewide administrator gives them the amount to charge (Weissman and Allshouse, 2018).

Local governments commonly hire third parties to perform or support these process steps for C-PACE, just as they may already use third parties to handle other tasks, or parts of other tasks, in the property tax assessment process.<sup>21</sup> Local governments may charge their normal fees to perform these tasks or may recover costs in other ways (Leventis, Schwartz, Kramer, & Deason, 2018).

## Enforcement

Enforcement is the action taken to recover outstanding C-PACE payments, ultimately through a tax sale or tax foreclosure. Underlying C-PACE statutes typically bar extinguishing C-PACE assessment liens, even in a foreclosure.<sup>22</sup> Local governments recover the amounts owed in arrears through the proceeds of the tax sale or foreclosure process; the future balance and schedule of C-PACE assessment payment obligations transfer to the new owner.

Nonpayment situations mark an important difference between C-PACE and Residential PACE (R-PACE). C-PACE arrangements generally involve more sophisticated borrowers (i.e., commercial property owners), for whom a foreclosure will not directly impact their personal finances or living situation. Commercial properties also tend to have multiple lienholders who, through loan covenants, must be informed of and agree to building owners securing other debt with the property, and who require notification of a property tax delinquency to make a protective advance to preserve their security interest.

C-PACE enforcement follows existing laws and local protocols, so the process will be the same as for other special assessments. Enforcement rights often travel with the lien (i.e., the lienholder has the right to initiate tax sale proceedings; in some programs the lien is assignable to a third party, such as a lender) (Dykes, 2018). If rules allow assignable liens, a third-party lender may be the creditor on a C-PACE project—not the local government, as in the case of a normal special assessment. In that case, the third party is the entity with an interest in initiating a tax sale or tax foreclosure in the event of nonpayment. Depending on the state, the enforcement process may be carried out through the local government (i.e., judicial) or independently (i.e., non-judicial).<sup>23</sup> Program sponsors and administrators should confirm whether state and local laws authorize a third party to initiate an enforcement action.<sup>24</sup>

If laws and program structure allow assignable liens and nonjudicial foreclosures, the role of local governments in this aspect of the process may be more limited.<sup>25</sup> Unless the jurisdiction has directly provided capital for projects or some credit enhancement, a foreclosure will not impact the jurisdiction’s financial standing. As PACENation has noted, “At no time is the local government responsible to make C-PACE assessment payments to the C-PACE financiers” (PACENation, 2017).

## Enforcement Process

Once a property owner has missed an initial payment, the lienholder may want to exercise its rights by initiating a tax sale or foreclosure. If the local government holds the lien, it may be required or choose to allow significant time before initiating a tax sale.<sup>26</sup> If a third party, such as a private lender, holds the lien and is authorized to initiate foreclosure, it may want to begin proceedings much sooner (e.g., within 60 to 90 days of the date when a tax sale is authorized), depending on what the lienholder feels is appropriate and what is allowable by law.

The first step is giving notice to the stakeholders involved. Next, the process generally allows a grace period for the property owner to pay any outstanding amounts owed (missed payments and penalties).<sup>27</sup> If the grace period passes without the property owner paying off the debts, the lienholder may move to conduct a tax sale through an auction. The auction may be a tax deed sale (in which the property itself is put up for auction) or, in some states, a tax lien sale (in which the lien is sold).<sup>28</sup> If it is a judicial foreclosure, the lien-

<sup>21</sup>For example, SCEIP hires a third party to track assessments, payoffs, amortization, and billing amounts, and submit the information to the assessor’s office (Carlock, 2018).

<sup>22</sup>A tax sale involves selling a property (tax deed sale) or lien on a property (tax lien sale) to generate funds to pay outstanding taxes or special assessment arrears.

<sup>23</sup>Nonjudicial processes can be significantly shorter than judicial processes, which can take up to several years.

<sup>24</sup>In Virginia, an Attorney General’s opinion clarified the power local jurisdictions have in delegating process tasks.

<sup>25</sup>For example, the local government may have to assign the lien, but will not manage the enforcement process (see page 10 under “Programs are moving toward third-party administration”).

<sup>26</sup>Existing law may require the local government wait a specified amount of time before initiating a tax sale. The waiting period can be up to several years.

<sup>27</sup>Unlike loans, C-PACE does not accelerate—that is, the full amount of the C-PACE obligation does not come due if the participant defaults. Only the delinquent payments are due; the balance of the lien owed passes on to the next property owner (<https://pacenation.us/wp-content/uploads/2012/07/PACE-Benefits-Concerns-Solutions-Webinar-Presentation.pdf>). In Colorado, a debate is occurring as to whether the amount of a C-PACE obligation should accelerate if the property holder is delinquent and the property is part of a tax lien sale (Weissmann 2019).

<sup>28</sup>The responsible party may hold the auction live or, where available, online.

---

holder must petition a court—often through the local government—for authorization to take the property to auction. In a nonjudicial process, the lienholder may conduct the auction without court authorization or local government support.<sup>29</sup> Proceeds from the auction pay arrears to the lienholder.

### **Enforcement Experience**

C-PACE programs have funded about 1,870 projects since 2008 (PACENation, n.d.). Based on interviews with experts conducted for this brief, only one project has defaulted.<sup>30</sup> At the same time, most C-PACE projects have closed in the last two to three years. Although default rates are likely to remain low relative to the total number of C-PACE projects, stakeholders should prepare for the possibility of defaults increasing as more projects are completed.

Delinquencies are more common; in most cases, lenders and program administrators can work with property owners, mortgage holders, and other creditors to get payments back on track—for example:

- Connecticut, with one of the largest C-PACE programs in the country, has had a few delinquencies. The Connecticut Green Bank is the C-PACE program administrator and the lender on some projects. It has modified loan terms to help two property owners get back on schedule with payments (Dykes, 2018).
- In California, C-PACE program administrator Dividend Finance notified the mortgage holder of a delinquency on a property-secured obligation. The mortgage holder made a protective advance to cure the delinquency and to preserve its security interest. The property was subsequently sold privately to another investor that has resumed timely payments. Because Dividend Finance had previously obtained the mortgage holder’s consent to the C-PACE assessment, the mortgage holder could move quickly to resolve the delinquency.

### **Enforcement Preparation**

To prepare for the eventuality of a default and foreclosure, program sponsors, program administrators, and other C-PACE stakeholders can take the following steps:

- 1) Consider, understand, and communicate to participants and stakeholders:
  - a. The role of the local government in the tax sale process:
    - Can the local government assign the responsibility to a third party?
    - If so, does the local government want to be involved in the process—and in what ways?
  - b. The tax sale process, timelines, and options:
    - Are both judicial and nonjudicial foreclosures possible?
    - Does the process include a tax lien sale or just a tax deed sale?
    - What are the implications (e.g., how fast is the process)?
- 2) Obtain mortgage holder consent when putting together C-PACE deals, leverage relationships with the mortgage holder, and foster the mortgage holder’s understanding of the C-PACE process.
- 3) Be in touch with other lienholders on delinquent properties (e.g., the mortgage holder) to gain insight into borrower’s situation. Consider the following questions:
  - Is the borrower behind on other obligations?
  - Is there a problem with the underlying business?

## **Conclusion**

### **General Themes and Trends**

With the emergence of C-PACE financing throughout the United States, driven in part by demand from property owners and developers, local governments will continue to ask questions about benefits and potential risks before creating or joining a C-PACE program. This issue brief focuses on three potential risks frequently cited as concerns by local governments—increased staff time commitments, financial risks, and increased tax foreclosures—and finds they will either occur very rarely or can be managed through careful program design and

<sup>29</sup>In a judicial foreclosure, the local government may need to conduct the auction. In a nonjudicial process, the third-party lienholder is responsible for conducting the auction.

<sup>30</sup>In the case of the one reported default, the property owner began missing payments a year and a half after the C-PACE project was completed. The program administrator (a party to the enforcement) and the third-party lender for the project (the lead on the enforcement) worked with the mortgage holder, the owner, and other creditors to try to avoid the default. Working with the mortgage holder and other creditors on the property, the C-PACE lender found out the property owner was delinquent on all its obligations and that, due to the failure of an essential piece of equipment, the business was failing.

---

planning. Supporting this finding is a trend towards increased responsibilities for third-party program administrators and capital providers, which significantly reduces local government responsibilities, and the rare occurrence of default on C-PACE assessments to date.

Several themes and trends emerge from our research:

**C-PACE is not R-PACE for commercial buildings.** Consumer protection issues for C-PACE differ from those for R-PACE. This is because C-PACE projects generally involve more sophisticated property owners and other creditors with interests in the property, who often have covenants that require notice and consent for the property to secure another obligation. In addition, most jurisdictions have far more residential than commercial properties. Nationally, annual project volume for C-PACE has been far lower than for R-PACE. Project timing and scope are also different, which has implications for the program process.<sup>31</sup>

**Programs are moving toward third-party administration.** The industry has seen some program administrative structures in which third parties (as opposed to local governments) take on administrative responsibilities such as recording, billing, collections, and remitting payments to the capital provider and other service providers. Some local jurisdictions have authorized third party enforcement, which can expedite the resolution of a nonpayment but some capital providers may be hesitant to invest in programs unless the local government is responsible for enforcement (see above).

In one jurisdiction, the county will enforce the lien via its normal tax foreclosure process or, alternatively, may assign the C-PACE lien to the capital provider, and thereby allow the capital provider to enforce the lien according to the terms of the C-PACE financing documents. This private enforcement may move through the legal process more quickly than a local government-managed tax foreclosure. However, there may be tradeoffs, for instance, Brian McCarter of SRS says, “some local governments may not adopt C-PACE if they are required to be the responsible party for assessment lien enforcement while some capital providers may be reluctant to participate in programs where they are the responsible party for enforcement” (McCarter, 2019).

**To date, defaults are very rare, but delinquencies do occur.** Only one C-PACE project has defaulted to date out of nearly 1,870 completed projects since 2008 (PACENation, n.d.). Delinquencies are more common. C-PACE program stakeholders need to know what practices may be helpful in moving delinquent property owners to return to full and timely repayment. Open communication among lienholders, program sponsors, property owners, and mortgage holders is helpful in addressing delinquency issues.

**C-PACE projects represent a small fraction of total assessments in any jurisdiction.** Generally, local government tasks for C-PACE are comparable to tasks for other special assessments. Most local governments participating in a C-PACE program will only have a few C-PACE projects per year at most.

## Potential Local Government Burdens

The amount of ongoing work required for a local government to participate in C-PACE depends on three variables, illustrated in Table 2:

- How much of the process the local government can and will delegate;
- How many projects a program finances each year; and
- How much effort an individual project takes (if the local government is in charge of developing projects).

The local government’s staff commitment for recording, billing, collection, and remittance is generally minimal. Where a third-party administers C-PACE, local governments may delegate some or all of these tasks and may have no role at all. In some jurisdictions, local governments may delegate enforcement to a third party (stakeholders should be clear about whether enabling legislation authorizes third-party enforcement).

Even for local governments managing the enforcement process, the required staff time may be nominal when taken in perspective. The staff requirements to record, bill, collect, and potentially enforce for a few C-PACE projects are similar to tasks for other property tax and special assessments on potentially several hundred or several thousand other properties (Weissmann and Allshouse 2018). For example, in Boulder, Colorado—which participates in the third-party administered, statewide C-PACE program—any C-PACE project delinquency would be one of some 2,000 property tax and special assessment delinquencies in a given year. The delinquency could result in a tax lien sale in which a software program creates a list of delinquent properties and the treasurer’s office checks the list and conducts a live auction. (Other counties carry out the auctions online.).

<sup>31</sup>For example, to protect consumers, R-PACE programs may require that contractors only receive payment once a project is completed. Commercial projects could last several months and may incur far higher costs, which could be untenable for contractors.

---

## Lessons Learned

We draw the following conclusions from our research and interviews:

- It is important to understand existing state laws relevant to C-PACE programs, any enabling legislation needed for a new C-PACE program, and the administrative structures of C-PACE programs that may be available.
- Local governments should consider several questions to gauge the commitment required to participate in C-PACE, including (adapted from Sherman 2018):
  - Who performs the required tasks in a traditional assessment process, how long do these tasks take, and what is the cost of performing the tasks?
  - Who will undertake these assessment tasks for a C-PACE program?
  - Do any legal questions need to be addressed regarding the authority of certain parties to carry out any of these tasks?
  - How will the jurisdiction ensure a firm legal basis for the lien for each project?
  - Where will the funds flow in a C-PACE program, and how long does each transaction take?
  - Are existing laws sufficient to govern each part of the process, or are there gaps in guidance for some aspects of C-PACE arrangements that will require contracts?
  - Who will ensure the assessment is on property tax bills?
  - Who will confirm the funds have arrived from the property owner?
  - Where will the funds go (into whose account)?
  - How will enforcement of the assessment work?
- The main risk identified by interviewees for this brief is financial loss to capital providers, due to projects failing to repay C-PACE obligations. Since most programs are not capitalizing these projects with their own money, interviewees see this risk as very low for local governments.<sup>32</sup>
- Obtaining mortgage holder consent for C-PACE in the project development phase has proved to be valuable in delinquency situations. Speaking with other lienholders in a delinquency situation can potentially remedy the situation and provide the lender and program administrator with a better understanding of the situation: Is the borrower delinquent on other obligations? Is there a problem with the underlying business that other stakeholders may not be able to correct?
- Program administrative structure is an important determinant for local government workload.
- Program sponsors and program administrators need to be clear about what enabling legislation and existing laws authorize third parties to do, especially for enforcement tasks, as some localities are asking third parties to take on new roles in C-PACE programs. This is particularly important if these authorizations are absent from or unclear in enabling legislation.
- To prepare for and deal with an enforcement, stakeholders should understand the enforcement process and any specific requirements in C-PACE-enabling legislation. Clarity is needed with respect to entities responsible for each task, how those tasks are carried out, timelines (e.g., for delinquency, default, and foreclosure), and any distinct features of the enforcement process (e.g., whether nonjudicial foreclosures are possible).
  - If a delinquency occurs, the lender, program administrator, or the local government should reach out to the property owner, as well as other lienholders on the property. This can help reveal whether the property owner is delinquent on other obligations and what the financial health of the underlying business is, which may inform the next steps the lienholder takes.
  - Responsible stakeholders should understand what options for flexibility are available to remedy a delinquency (e.g., waiving certain fees, restructuring the payment schedule).

## Acknowledgements

The authors thank Sean Williamson, Eleni Pelican, Jenah Zweig, and AnnaMaria Garcia of DOE's Office of Weatherization and Intergovernmental Programs for their support of this project.

For participating in interviews and providing input for this brief, we thank Alycia Allshouse, Josh Campbell, Craig Carlock, Mike Centore, Scott Dicke, Mackey Dykes, David Gabrielson, Peter Grabell, Michael Karlosky, Wendy O'Malley, Elyssa Rothe, Genevieve Sherman, Marco Velotta, and Paul Weissmann.

For reviewing a draft of this brief and providing comments, we thank Josh Campbell (ShowME PACE), Jessa Coleman (PACE Financing Servicing), Scott Dicke (SRS), Mackey Dykes (Connecticut Green Bank), Peter Grabell (Dividend Finance), Clifford Kellogg (C-PACE Alliance), Wendy O'Malley (Massachusetts Development Finance Agency), Brian McCarter (SRS), Genevieve Sherman (Greenworks Lending), and Paul Weissmann (Treasurer, Boulder County, Colorado). Thanks also to Kristan Johnson for her help in initial formatting.

---

<sup>32</sup>Paul Weissmann and Alycia Allshouse of the Boulder County, Colorado, Treasurer's Office see even that low level of risk as shifted to the statewide C-PACE program in which the county participates (Weissmann and Allshouse 2018).

---

## References

- Campbell, Josh. Show Me PACE Clean Energy District. Email communication with Lawrence Berkeley National Laboratory (LBNL) and DOE. August 14, 2019.
- Carlock, Craig. Sonoma County, California Energy Independence Program (SCEIP). Interview by LBNL. October 1, 2018.
- Centore, Michael, PACENation. "C-PACE by Program and City." December 12, 2018.
- Coleman, Jessa. PACE Financial Servicing. Email communications with LBNL and DOE. September 23, 2019.
- Dicke, Scott. Sustainable Real Estate Solutions (SRS). Interview by LBNL. October 4, 2018.
- Dykes, Mackey. Connecticut Green Bank. Interview by LBNL. November 5, 2018.
- Gabrielson, David. PACENation. Interview by LBNL. November 8, 2018.
- Heydinger, Charlene. Texas PACE Authority. Interview by LBNL. August 21, 2017.
- Leventis, Greg, Lisa Schwartz, Chris Kramer, and Jeff Deason, Lessons in Commercial PACE Leadership: The Path from Legislation to Launch, February 2018. [http://eta-publications.lbl.gov/sites/default/files/lessons\\_in\\_commercial\\_pace\\_leadership\\_final.pdf](http://eta-publications.lbl.gov/sites/default/files/lessons_in_commercial_pace_leadership_final.pdf).
- Loftsgordon, Amy. "Timeline for Nonjudicial Foreclosure." Accessed December 5, 2018. <https://www.nolo.com/legal-encyclopedia/timeline-nonjudicial-foreclosure.html>.
- McCarter, Brian. SRS. Email communication with LBNL and DOE. September 10, 2019.
- O'Malley, Wendy. Massachusetts Development Finance Agency. Interview by LBNL. November 28, 2018.
- PACENation. "C-PACE Talking Points." November 2017. <https://pacenation.us/wp-content/uploads/2017/11/C-PACE-talking-points-1.pdf>.
- PACENation. "PACE Market Data." Accessed March 5, 2019. <https://pacenation.us/pace-market-data/>.
- Rothe, Elyssa. PACENation. Interview by LBNL. October 23, 2018.
- SCEIP, Property Assessed Clean Energy (PACE) Replication Guidance Package for Local Governments, March 2012. [https://www.keeping-paceintexas.org/docs/resources/scei\\_1.pdf](https://www.keeping-paceintexas.org/docs/resources/scei_1.pdf).
- Sherman, Genevieve. Greenworks Lending and PACE Financial Servicing. Interview by LBNL. September 13, 2018.
- Paul Weissmann, email to LBNL, February 13, 2019.
- Weissmann, Paul, and Alycia Allshouse. Boulder County, Colorado, Treasurer's Office. Interview by LBNL. December 13, 2018.
- Wikimedia Commons. (n.d.). File:US Navy 100809-N-8863V-061 Construction workers install new energy-efficient windows and lighting in Bldg. 519 at Naval Surface Warfare Center.jpg. Retrieved from [https://commons.wikimedia.org/wiki/File:US\\_Navy\\_100809-N-8863V-061\\_Construction\\_workers\\_install\\_new\\_energy-efficient\\_windows\\_and\\_lighting\\_in\\_Bldg\\_519\\_at\\_Naval\\_Surface\\_Warfare\\_Center.jpg](https://commons.wikimedia.org/wiki/File:US_Navy_100809-N-8863V-061_Construction_workers_install_new_energy-efficient_windows_and_lighting_in_Bldg_519_at_Naval_Surface_Warfare_Center.jpg)

## Disclaimer and Copyright Notice

This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or The Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, or The Regents of the University of California. Ernest Orlando Lawrence Berkeley National Laboratory is an equal opportunity employer.

This manuscript has been authored by an author at Lawrence Berkeley National Laboratory under Contract No. DE-AC02-05CH11231 with the U.S. Department of Energy. The U.S. Government retains, and the publisher, by accepting the article for publication, acknowledges, that the U.S. Government retains a non-exclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this manuscript, or allow others to do so, for U.S. Government purposes.

The work described in this report was funded by the U.S. Department of Energy's Office of Weatherization and Intergovernmental Programs under Lawrence Berkeley National Laboratory Contract No. DE-AC02-05CH11231.



For more information, visit: [energy.gov/eere/slsc](http://energy.gov/eere/slsc)

DOE/GO-102019-5185 • June 2019