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Commercial PACE for Affordable Multifamily Housing

Vermont Energy Investment Corporation

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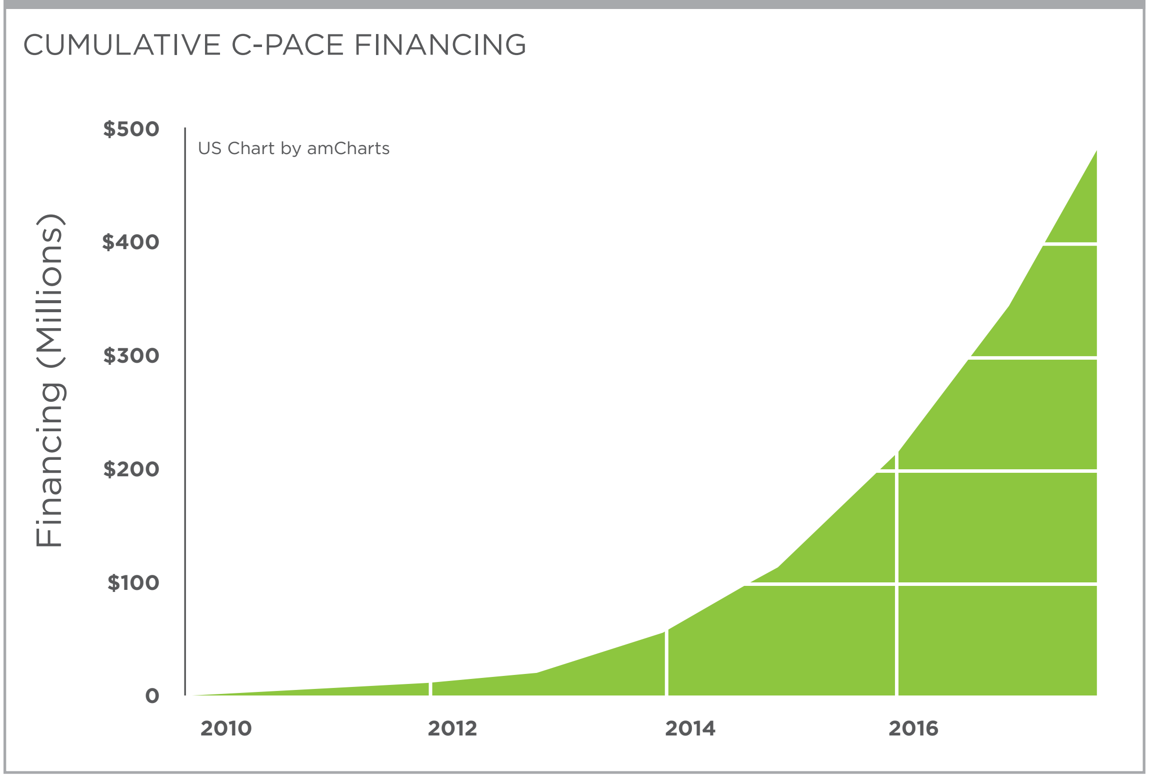
INTRODUCTION

Since 2009, more than 30 states have enacted Commercial Property Assessed Clean Energy (C-PACE) legislation, an innovative tool that commercial, industrial and multifamily property owners can use to secure affordable, long-term financing for energy upgrades to their buildings. C-PACE has taken off in the past year with dollar usage more than doubling since 2016, enabling over 1000 commercial buildings across the country to secure more than $450 million in financing from this program. However, few owners in the affordable multifamily housing sector have taken advantage of C-PACE. This report seeks to understand whether there is an opportunity for C-PACE to fill a gap in financing energy efficiency in the affordable multifamily buildings sector and if so, what are the best practices for ensuring this financing mechanism benefits affordable multifamily stakeholders.

The report begins by providing a brief overview of C-PACE and then provides data about those specific multifamily transactions that have used this innovative financing tool. Based on interviews with Program administrators that have demonstrated ability to move C-PACE financing into the affordable multifamily sector, we then present recommendations for both the policy and implementation sides to significantly expand C-PACE's uptake in this critical part of our building industry. The report's Appendices provide details about our research methodology as well as current enabling legislation and C-PACE programs and transactions. Appendix D provides valuable details about a complex recapitalization project that used C-PACE financing and Appendix E provides state-specific resources. Finally, Appendix F features the first state Attorney General Opinion Letter to be approved by HUD.

FIGURE 1: Cumulative C-PACE Financing (2010-2017)



Source: PACENation (http://pacenation.us/, accessed October 2, 2017)

BACKGROUND

C-PACE 101

C-PACE is a financing structure that enables owners of commercial, industrial and multifamily residential properties to obtain affordable, long-term funds for 100% of the cost of energy and water efficiency retrofits (as well as for distributed generation investments).   It works by allowing building owners to finance qualifying improvements by placing a voluntary assessment on their property tax bill, paying for these improvements over time through an additional charge on this bill. Almost always, this voluntary assessment is more than paid for by the energy savings produced by the retrofit.

Typically, a state's C-PACE statute authorizes the establishment of a PACE administrator(s) that partners with cities and counties and coordinates with private sector lenders to provide the upfront financing and collect the repayments. Unlike a typical mortgage, C-PACE obligations automatically transfer over to the next building owner if the property is sold. Like a sewer tax assessment, capital provided via C-PACE is secured by a senior lien on the property so that financing can be secured. This financing mechanism spreads the cost of the clean energy improvements over the expected life of the measure, often up to 20 or 25 years.

In order for this financing mechanism to be available, the participating state designates a PACE Administrator(s) to market, administer and sometimes finance and train contractors to use the program. These Program administrators range from state green banks, joint power authorities and local governments to non-profit energy providers and advocates and for-profit vendors. PACE Administrators tend to have expertise and relationships in the energy sector, not with the affordable multifamily housing sector.

Sources of capital for C-PACE have evolved over the last few years. Many states have 'open PACE' where multiple financing options are available. Those with 'closed PACE' have only one financing source/program. The most common source today is institutional investors who are attracted to the high rate of return relative to the risk. Because of the priority of the senior lien, investors are effectively lending at a 10% loan-to-value with a rate of return on their investments that is 2 to 3 percentage points higher than other investments with similarly low risk profiles. In addition, some programs have used bonds, microloans, and general revenue funds.

SLOW UPTAKE BY THE MULTIFAMILY SECTOR

As noted above, C-PACE is not commonly used in the affordable multifamily sector. Several theories have been advanced to explain this limited uptake:

- **Complexity of affordable multifamily deals**. Transactions in affordable multifamily housing, particularly those buildings with federal subsidies, are significantly more complex and time consuming and thus not attractive for PACE Administrators, who can find commercial deals that are larger and simpler to close. Office buildings, for example, have been a popular target for C-PACE in many states.
- **Ability to secure more favorable financing.** As part of major recapitalization deals, affordable multifamily owners may be able to finance energy improvements using more favorably priced or termed capital from other sources.
- **Absence of technical support**. Some C-PACE Administrators simply offer a financing tool without providing the necessary infrastructure of programmatic technical support that is required by multifamily building owners and managers who lack the time or expertise to move a project forward on their own.
- **Energy retrofit: struggling with competing priorities.** Finally, energy efficiency measures are frequently 'value engineered' out of projects as more pressing and visible demands for capital take precedence and planned energy improvements are eliminated from the final project scope.

But the Case is Strong

The case for considering the use of C-PACE to serve multifamily affordable housing is strong with its ability to bring new upfront capital to housing projects by using projected utility savings to pay for efficiency improvements. Though it is difficult to estimate the size of this opportunity for C-PACE to fill a critical funding gap enabling greater energy efficiency upgrades in the affordable multifamily stock, use of this financing tool is decisively increasing in the rest of the commercial building sector.

The following characteristics of C-PACE can be attractive to affordable multifamily owners:

- **Tax assessment, not a loan.** Like other property-based tax assessments, C-PACE obligations stay with the property and unlike a mortgage, repayment cannot be accelerated or demanded at the time of sale. The relationship between the local government and the property it serves, and the taxes it levies, will endure regardless of who the current owners may be.
- **Off balance sheet.** The C-PACE transaction is considered "off balance sheet" because only the current year's assessment shows up on the owner's balance sheet as a short-term liability. Each year's tax obligation is recognized as an expense for that year.[1]
- **Based on owner's equity rather than future income**. Eligibility for C-PACE is generally based on the amount of owner's equity in the building, rather than the future income that the building produces. Typically, the combination of any existing mortgages plus the PACE assessment can equal up to 100% of the assessed value of the property, so lower outstanding mortgage balances can result in eligibility for larger PACE assessments. Consequently, there are scenarios under which a multifamily building owner might be ineligible for larger conventional loans but eligible for PACE.

- **Structured to recoup savings to cover costs.** Most C-PACE programs require that estimated energy savings from the project funded cover costs, sometimes by specifying a requirement of a savings to investment ratio (SIR)[2] that is greater than 1.0. In other words, the expectation is that avoided costs from reduced energy expenditures (or generation in the case of renewables) will equal or exceed the special tax assessment payments. This means very low risk for lenders.

- **Potential to fill financing gaps.** Although current PACE interest rates generally exceed interest rates available from traditional multifamily affordable housing financing sources, rates are beginning to be more comparable as competition increases. Currently, institutional investors are the most likely source for PACE financing. In addition, PACE financing is not subject to some of the caps or per-unit limitations found in many federal programs. As such, the best use of PACE financing in this sector may be to fill any financing gaps so that all cost-effective energy efficiency upgrades can be made.

In sum, the criteria for accessing C-PACE capital are different from those of traditional financing and so can supplement those sources typically used by affordable multifamily housing developers to recapitalize their properties — grants, utility incentives, forgivable loans, soft-second loans, tax credits, and other senior and subordinate debt. See Figure 2 for a list of likely funding sources for a hypothetical recapitalization on an affordable multifamily development.

FINDINGS

Existing-C-PACE Programs in the Affordable Multifamily Sector

As our first research task, we catalogued existing C-PACE programs, focusing on those that have either created programs for the affordable multifamily sector or that have been used by affordable multifamily owners to finance energy improvements to their buildings. An explanation of our research methodology is included in Appendix A. Appendices B and C provide details about the results from this data collection effort.

OUR FINDINGS:

- There have been very few C-PACE transactions involving affordable multifamily housing.
- The financing structures for most of the completed transactions have been relatively simple, compared to the sector's typical financing scenarios.
- There has been only one instance to date of C-PACE being used on a U.S. Department of Housing and Urban Development (HUD) financed property, and only one instance of C-PACE being used on an affordable, multifamily transaction using the Low-Income Housing Tax Credit (LIHTC).
- Though each state's enabling legislation is different, these variations typically involve minor variances in definitions, and have not led to substantive differences for C-PACE Program administrators. These variations at the state or local level, however, may hinder the ability of capital to cross state borders. This can be especially troublesome for those PACE financers who seek to work with multiple programs in numerous jurisdictions and who must comply with differing regulations, or who seek to bundle projects from multiple jurisdictions for sale into secondary markets.
- C-PACE was not originally designed for new construction and there may be difficulties using this financing tool at the time of new construction because of the difficulty in determining the Savings to Investment Ratio (SIR).

These findings are each discussed below with examples provided from our interviews with PACE administrators.

There have been very few C-PACE transactions involving affordable housing of the 32 states (including Washington D.C.) that have passed C-PACE enabling legislation, 20 have active C-PACE programs and two have programs in development. Within those 20 states, there are 46 distinct established programs[3] (39 Program administrators and seven financing programs[4]). C-PACE transaction numbers, outside of affordable, multifamily housing, are growing quickly, as evidenced by the fact that the cumulative volume of C-PACE transactions has doubled in the last year. (See Figure 1 above.)

Through our outreach efforts, we have been able to identify 1,151 C-PACE transactions[5] with 42 (3.6%) involving multifamily properties.[6] Fifteen out of the 42 transactions are for affordable housing properties located in six states. Of the 15, eight are naturally occurring affordable housing (NOAH) properties and seven are assisted or subsidized affordable housing. We found no instances of C-PACE usage for public housing projects, due to their legal inability to use real assets as loan collateral.

These 15 affordable housing transactions are associated with the following C-PACE programs (categorized by the type of affordable housing):

AFFORDABLE MULTIFAMILY HOUSING C-PACE TRANSACTIONS

Naturally occurring affordable housing transactions:

- Connecticut Green Bank (4 transactions)
- Florida SELF (1 transaction)
- Energize NY (1 transaction)
- CaliforniaFirst (2 transactions)

Assisted affordable housing transactions:

- CaliforniaFirst (1 transaction)
- DC PACE (2 transactions)
- Lean & Green Michigan (1 transaction)
- Energize NY (3 transactions)

Case studies for each of these projects are available from PACENation.[7]

Existing project financing has been relatively simple for the few affordable multifamily transactions completed Transactions in the affordable, multifamily housing sector are rarely simple. The capital stack typically involved in financing upgrades to these buildings is multi-layered and complex, particularly for subsidized housing, as illustrated by Figure 2.

FIGURE 2: Illustrative Capital Stack for a Hypothetical Recapitalization of a Subsidized Affordable Multifamily Development

Federal Home Loan Bank Affordable Housing Program	Direct subsidy (grant)
Utility Incentive	Based on energy savings
Housing Finance Authority	Forgivable loan
Long-term government debt — city, county and state with three separate loans	"Soft second" loan payable only from percentage of cash flow, principal payments deferred, long-term affordability covenant
Deferred development fee	Payments made with funds available after debt payments
Historic Tax Credits	Tax credit equity available to developers, 20% of qualified project expenditures for eligible historic projects
9% Low-Income Housing Tax Credits (LIHTCs)	Bank, syndicator, insurance company allocated based on costs No payments required, but ongoing compliance is necessary
Subordinate second lien (mezzanine)	Hard debt — no guarantees
Senior debt — first lien mortgage	Hard debt — payments must be made on bank loan insured by HUD

Given this inherent complexity, it is not surprising that the examples we found of C-PACE financing for affordable, multifamily housing upgrades involved situations with significantly fewer complicating factors than found in the typical capital stack.

- Of the four transactions completed by Connecticut Green Bank, all were NOAH and thus did not have federal or state financing support. Any subsidized mortgages had been fully repaid and thus consent from a mortgage insurer was not required to participate in a C-PACE transaction.[8]

- Energize NY's four transactions did not come with HUD financing. Rather, these projects used mission-based lenders such as Community Development Financial Institutions (CDFIs) and in one case, the county served as the primary mortgage holder.[9] Although three of these were subsidized properties, their capital stack was less complex than the typical example above, as the subsidies were provided by local authorities.

- Two of the three CaliforniaFIRST PACE transactions involved NOAH mobile home parks and thus no government financing. Their third deal financed energy improvements on a HUD Section 8 property. This 2016 transaction was completed under then-guidance provided by the California HUD PACE pilot and no special steps were taken to obtain the HUD approval. The building owner worked directly with HUD to obtain approval and the PACE Administrator did not do anything differently from any other PACE financing.[10]

- Florida SELF completed a PACE transaction with one NOAH apartment building (with no federal or state financing support).[11]

- Lean & Green Michigan completed one assisted affordable housing transaction. This was a privately owned apartment complex in rural Michigan with the U.S. Department of Agriculture (USDA) as the mortgage lender. Lean & Green Michigan began this process with the state USDA office, which then helped them move through the necessary steps to secure approval at the national level.[12]

There has been only one instance to date of C-PACE being used on an affordable, multifamily transaction on a HUD financed property, and just one instance of C-PACE being used on an affordable, multifamily transaction using the LIHTC. The HUD financed project was completed by CaliforniaFIRST. The LIHTC transaction property was completed by DC PACE.

CaliforniaFIRST completed one transaction on a HUD Section 8 property in June 2016. The building owner worked directly with HUD to obtain approval. So, the PACE administrator did not need to do anything differently for this affordable housing transaction than it would have for any other PACE financing. CaliforniaFIRST also completed two PACE transactions with two NOAH mobile home parks (with no federal or state financing support).

The *Arthur Capper Senior Center* in DC, utilized a 9% LIHTC and thus required signoff from the regional HUD office, which was obtained by the DC Public Housing Authority.

Although, not a HUD financed project, the *Phyllis Wheatley YWCA* redevelopment in Washington D.C. received HUD approval as part of its review process. Unlike the other PACE projects listed above, this project was more complex. HUD (through the project's Annual Contributions Contract (ACC)), the DC Housing Authority, Department of Human Services, Department of Housing and Community Development as well as private debt and equity investors were all part of the $17 million project budget. However, there was a financing gap which jeopardized the project's ability to include energy efficiency improvements. C-PACE financing was used to fill that gap without adding marginal cost or significant additional time to the transaction. The C-PACE funding approval was obtained as part of HUD's review and approval of the overall project re-syndication, so all of the parties were already at the table, which helped to simplify the process. It would have been much more difficult to obtain for a standalone transaction outside of the re-capitalization.[14]

Documentation. Urban Ingenuity, DC PACE's Administrator, issued a memo on the YWCA transaction, detailing the consents obtained and the modifications made to a conventional PACE document structure. See Appendix D for a very useful precedent setting example of C-PACE financing on a HUD assisted property.

As noted in the introduction, the requirements involved in combining C-PACE and HUD financing seem to damper deal flow among owners of HUD-financed properties. Some of the factors include:

- HUD guidelines require a legal opinion from each state's Attorney General as part of the program assessment procedures, described in more detail below. Because of the small variations among states' PACE enabling legislation, each state's Attorney General must craft a unique letter. Based on our interviews, Energize NY is the only program that we could identify as having completed this requirement.[15] DC PACE has begun the process.[16]
- HUD requires approval of both program assessment procedures and project approval conditions — highly specific requirements such as how energy savings are calculated and what level of reserves are required. Program assessment procedures must be approved by HUD for the overall program before HUD will consider specific project approval within that program.
- PACE Administrators do not understand how to comply both with HUD's 'purpose' priority requirement and the PACE 'financial' requirement. Memorialized in a Declaration of Trust, HUD's requirement (which supersedes all other covenants) states that the property must remain as affordable housing as long as HUD funding or financing is in place even in the event of a sale. PACE's Inter-Creditor Agreement requires that its special assessment (secured by a senior lien as are all real estate taxes) be current before any mortgage holders on the property may be paid.[17]

Despite these challenges to use PACE for projects with HUD commitments, some PACE Administrators are moving ahead with these complex projects. Having secured approval of its program assessment procedures from HUD in late July 2017, Energize NY has its first HUD project with C-PACE financing underway. It is the first program in the country to have its program assessment procedures approved by HUD; project-level approval of conditions has not yet begun.[18] New York's Program administrator, Energy Improvement Corporation, Inc. is a unique entity — a local development corporation established specifically to provide PACE financing to properties within municipalities that have passed local enabling legislation. EIC's nonprofit structure and public purpose enables it to finance smaller projects (less than $100,000 compared to the $1 million or more common to most PACE transactions).[19]

Variation in enabling legislation hasn't led to substantive differences for Program administrators. It is very common when legislative counsel is crafting a draft bill to draw on examples from other states and PACE is no different. It is also very common to then introduce modifications to account for other existing laws and practices, e.g. a state's treatment of liens or treatment of special tax assessments as compared to property taxes. The result is that while literally every state has slightly different PACE legislation, these differences are minor. None of our interviewees saw their state's authorizing legislation as a driving factor in PACE's use by the affordable multifamily sector.

The exception is the decision of PACE enabling legislation to allow 'open' versus 'closed' PACE programs.[20] Because 'open' PACE programs can increase competition for financing, thus bringing interest rates down over time, states are increasingly passing enabling legislation with 'open' PACE parameters.

Differences at the state or local level may hinder success in capital crossing borders. As PACE has gained ground nationally, some of the PACE financers are seeking to work with multiple PACE programs nationally. Given the expected benefits of open PACE on financing costs, the extent to which differing regulations are a barrier to standardization could prove to be a major impediment to growth. This is not dissimilar to the solar energy landscape, so lessons learned from the expansion of that market may prove to be useful to C-PACE as it evolves. One factor that could contribute to sustained growth in C-PACE would be a robust market for asset-backed securities of PACE financing, which requires a high level of conformity across programs so that capital markets are comfortable combining transactions from different states.

Challenges with using C-PACE for new construction

Since new construction has no pre-existing baseline for energy costs, determining the SIR is difficult. Some programs allow modeling results to be used to estimate savings for the purposes of calculating SIR. This can be problematic, however, as the SIR calculation relies on avoided costs and this may not be meaningful in the case where higher energy costs were never part of a real budget. For these reasons, the use of C-PACE for new construction should be considered carefully and only in the context of well-modelled energy savings and resulting in real avoided costs.

Though just a single state, California's regulatory and legislative environment for PACE is complex, not surprising for a state with almost 40 million people and with a history of PACE programming stretching from 2007. Like a patchwork quilt, the PACE landscape encompasses different options for chartered cities and unincorporated areas as well as requiring local city or county governments to opt in to various programs.[21] Consequently, the average potential PACE client may have some difficulty in even determining which program to apply to in this one state.

C-PACE GUIDANCE AND POLICIES

As key players in the multifamily housing financing space, Fannie Mae, Freddie Mac and state housing financing agencies can have a significant impact in determining whether C-PACE can be a viable tool for financing critical energy improvements in this part of the housing sector. Consequently, we reviewed the following guidance documents and policies focused on C-PACE:

HUD's California Pilot Guidance[22] and the January 2017 National Housing Notice;[23] Fannie Mae's Green Financing program; Freddie Mac's Multifamily Green Advantage program; and state housing finance agency in 12 target states.[24]

HUD California Pilot Guidance & HUD Guidance on C-PACE for Multifamily

While there have been some very positive developments in HUD's willingness to consider PACE financing for multifamily affordable housing and to develop procedures to obtain its consent, this process is still in its early stages with barriers just starting to emerge and be identified. Following is a summary of current HUD guidance and policies:

- *Considering program structure to ensure that the proposed PACE financing structure conforms to HUD's program assessment procedures*. Five criteria must be satisfied,[25] most of which track basic provisions of any PACE enabling legislation:

  1. The PACE special assessment will be assessed by a state, county or municipality pursuant to state law and sent with tax bills;
  2. Payments are collected with tax bills;
  3. Payments cannot be accelerated so that at any given time, the only obligation is the semi-annual/annual payment(s) current or past due and payable;
  4. In the event of a default on payment of the assessment, the mortgagee[26] receives timely notice and a reasonable opportunity to cure the non-payment; and
  5. A required opinion from the state's attorney general that the obligations are special assessments and treated in a similar manner as the real estate taxes.

- *Approval of individual projects to ensure they meet PACE project-level approval conditions.* Here, 14 criteria must be satisfied, with some having minimum requirements[27] including property location, Real Estate Assessment Center (REAC) score, energy audits, mortgage holder(s) consent, savings to investment ratio, maximum total property debt, energy and water saving measures must be permanently fixed to the property, and the commitment to provide post assessment information.

Despite HUD's original intent to use the HUD Multifamily PACE Pilot Program in California to gain the experience that would lead to field-tested uniform consent requirements nationally, we were not able to ascertain whether this pilot informed HUD's issuance of national guidance in January 2017. Unlike

the national guidance document, HUD's California pilot guidance did not require that the program and individual projects receive consent separately.

Nationally, only Energize NY has received program-level approval from HUD, but no individual projects have yet completed the process to secure consent. We received detailed descriptions of four projects that Energize NY is moving through this process, but no additional information was available at the time of finalizing this report.

Though HUD provides a Multifamily Accelerated Processing (MAP) Guide,[28] our interviews demonstrated that information flow between HUD and the PACE Administrators has been minimal. This lack of communication is clearly a barrier for affordable multifamily owners and developers of HUD financed/assisted projects. HUD's requirement of a legal opinion from the state's Attorney General for program consent also represents a significant barrier according to multiple Program administrators that we interviewed. Finally, the applicability of HUD lender approval is very different for the various sectors of the affordable housing market. Public housing is not covered by the Housing Notice (see Section II. Applicability), and thus this sub-sector has no guidance on PACE from HUD. However, Public Housing Authorities (PHAs) in general, would not have seen C-PACE as a financing opportunity because of the long-standing prohibition on PHAs using real assets as collateral for a loan.[29] However, through the Rental Assistance Demonstration (RAD) pilot project, PHAs can shift units from the federal public housing program into the Section 8 programs, making them applicable under Section II of the Housing Notice.[30] While this does not eliminate the barriers identified for obtaining HUD approval, it does make these properties eligible for C-PACE financing.

Fannie Mae Green Financing

While C-PACE is technically allowed for qualified loans under Fannie Mae's Green Finance program,[31] the requirement that senior-lien PACE assessments are prohibited as laid out in Lender Letter 13-09[32] is clearly a significant barrier for any affordable multifamily project that uses or plans to use Fannie Mae financing. This is called out specifically in a "Highlights" section of the Lender Letter, which states, "This Lender Letter is provided as a reminder of the Fannie Mae Multifamily policy prohibiting first-lien Property Assessed Clean Energy (PACE) Programs on Properties securing Multifamily Mortgage Loans".[33] A Multifamily Selling and Servicing Guide details other requirements should a PACE program comply with the subordinate-lien requirement, but this will likely be a significant barrier for most C-PACE programs. The impact of this limitation could be significant, especially in projects involving LIHTC for private owners, as Fannie Mae is very active in this sector.[34]

The Federal Housing Finance Agency (FHFA), the conservator and regulator for both Fannie Mae and Freddie Mac, has been a vocal opponent of PACE's senior-lien status for many years. FHFA's opposition in 2010 abruptly halted the rapid expansion of residential PACE programs nationally.[35] FHFA's view is that it is inappropriate for a borrower to take on debt based on their ability to support the debt service and then subsequently take on additional PACE financing which would take higher priority in the event of a borrower default.[36] Thus it is unlikely that C-PACE could be used on properties that have mortgages that were purchased by Fannie Mae, and conversely that the presence of a senior-lien PACE assessment would preclude that property's mortgage from being subsequently sold to Fannie Mae. However, it is not obvious why the FHFA would not allow senior-lien PACE assessments on non-residential properties purchased by Fannie and Freddie. Non-residential mortgages typically contain a provision, known as the due-on-encumbrance clause, requiring the consent of the mortgage lender before a borrower can take on more debt. C-PACE programs also require the written consent of any mortgage holder before C-PACE financing is provided.

Freddie Mac Multifamily Green Advantage

The Freddie Mac Multifamily Green Advantage is a program designed to make it easier to save energy and water in conventional, targeted affordable and senior housing. The suite of offerings provides fee reimbursements, additional funding and improved interest rates for projects that meet minimum energy or water saving levels.

Freddie Mac'ss website states that, "Freddie Mac Multifamily can grant consent for Commercial PACE financing from qualifying Commercial PACE programs on loans in our retained portfolio," but no additional details are provided.[37] Because we learned that Fannie Mae can only grant consent when the PACE assessment is in the second lien position, a requirement from its regulator, FHFA, we assume the same holds true for Freddie Mac consent since it is also regulated by FHFA. We reached out to confirm this assumption, but we were unable to connect with anyone in Freddie Mac's Multifamily Green Advantage program.

State Housing Finance Agency guidance in the EEFA states

Of the 12 states that are part of the Energy Efficiency for All initiative, ten have PACE enabling legislation. We examined guidance provided by the housing finance agencies of those ten states.[38]

A review of their websites revealed no guidance (documents or web pages) on C-PACE financing. To confirm, we contacted each via email, inquiring about available guidance. We received responses from 3 of the 10 Housing Finance Agencies (HFA), none of which had any guidance to provide.

BEST PRACTICES AND RECOMMENDATIONS

As noted in the C-PACE Background section above, we have few examples of C-PACE's use by property owners in the affordable multifamily housing sector. But we can learn from these limited cases — understanding the applicability, assessing the opportunities and discerning the conditions necessary for this type of financing tool to have a positive, scalable impact on the affordable multifamily sector.

As is true with any innovation, a critical barrier at the onset is lack of familiarity. This is still true of C-PACE in general, and specifically with its use in the multifamily affordable housing market where building owners are frequently unaware of C-PACE as an alternative to traditional financing, and PACE Administrators are typically not marketing to this segment. With fewer than 20 examples of C-PACE being used in affordable multifamily housing, and even fewer in subsidized housing, there is little familiarity with the use of the instrument. Nearly each use to date has been a unique case and though this makes doing the deals difficult, it also means that we are slowly building knowledge about the mechanisms for its effective use.

Differing legislation and regulations across, and even within, states, as well as new and not well understood federal program guidelines, contribute to creating an environment in which it is difficult to know how to proceed even if one is aware of C-PACE as a financing option for energy upgrades. This highlights the importance of getting more transactions completed, and documenting and widely disseminating the knowledge gained from these early experiences. PACE is in the early stages of commercialization and issues are being identified as deals happen; this presents an opportunity to incorporate processes applicable to the multifamily affordable housing sector now so that they will be uniformly and consistently available in PACE programs in the future. Projects in the affordable multifamily sector are perennially challenged to find sufficient capital to meet all needs, and as noted elsewhere, energy measures often end up on the cutting room floor. The existence of a new financing option which has different and in some cases fewer limitations is clearly a positive development in sourcing capital.

This conclusion leads us to make the following recommendations for both policy makers and players in the affordable multifamily sector:

FOR POLICYMAKERS AND PROGRAM ADMINISTRATORS

State legislators and PACE administrators clearly play a critical role in improving the applicability of PACE for affordable multifamily housing. The following recommendations are intended for this audience.

Encourage Open PACE Program Design

As noted earlier, much of the recent growth in C-PACE is due to the growing recognition by capital markets of the positive risk-reward characteristics of senior-lien-secured PACE assessments. The 'open' PACE program design, in which multiple capital providers can compete for the opportunity to finance projects, should be encouraged, because ultimately borrowers (in this case, affordable housing providers) can benefit from this competition from lower interest rates. There is evidence of this trend already in the California Statewide Communities Development Authority (CSCDA) program[39] as well as in other open PACE programs in California[40] and Florida.[41]

Identify and Pursue Opportunities with the Fewest Barriers

We recommend focusing on deals in the naturally occurring affordable housing (NOAH) subsector because it is the arena with the fewest barriers to using C-PACE financing. Building a record of success in this submarket will help C-PACE administrators understand the operational concerns of multifamily housing providers, both for- and non-profit, without necessarily getting into the intricacies of housing subsidy structures.

Whenever one is putting out to market a new instrument, there is significant value in identifying projects that have the fewest barriers to implementation. These projects can build a record of success and potentially serve as champions to move C-PACE forward. Those C-PACE Administrators that have a mission-aligned interest in affordable housing markets should be tapped as partners in this endeavor. As each deal happens, cataloguing what new barriers emerged, and how they were dealt with will help track progress. Connecticut Green Bank and Energize NY have both had success in this space. Both organizations are quasi-governmental entities, and their ability to deploy private capital while working with local governments appears at this early stage to be an approach that should be closely watched.

Consider Opportunities in Public Housing

Public Housing Authority guidelines have always prohibited the use of real estate as surety for debt financing. While C-PACE may not be considered debt, *per se*, its primacy in the capital stack has the potential to put the underlying asset at risk and thus has been similarly proscribed by HUD, the PHAs funder and regulator.

The RAD pilot program, however, provides, an opportunity to use C-PACE financing as HUD PHA assets are converted to privately owned assisted housing. In those states that have made progress with C-PACE in affordable housing, Program administrators should identify PHAs that have undergone or are considering RAD conversions and work proactively to determine if C-PACE might be part of the transaction, thus ensuring that all cost-effective energy efficiency retrofits are included at the time of conversion. Because eligibility for PACE financing is based on the amount of owner equity in a property, a newly-converted building would offer maximum access for the new owners to PACE financing. Given the size of the existing HUD PHA universe, the potential for large-scale applicability is large if, as expected, RAD goes beyond pilot stage into wider implementation.

Increase and Document Communication with HUD

While there have been some very positive developments in HUD's willingness to consider C-PACE financing for multifamily affordable housing and to identify procedures for obtaining their consent, the gains tend to be episodic and focused on one deal or project. A collaboration among interested C-PACE Administrators that could develop a strategy and timeline to identify and eliminate barriers in a structured way could be very helpful. For example, this group could work with HUD to develop processes for expedited HUD acceptance if a project has positive cash flow. This team could ensure that all policy and procedural issues that are encountered are discussed and the results properly documented. Fortunately, our conversations with HUD staff indicate that they are eager to connect with C-PACE Administrators and would welcome an opportunity to disseminate their processes and requirements.

The lack of familiarity among C-PACE Administrators with HUD's required guidelines and process presents ongoing challenge to achieving a significant impact. It is critical that Administrators understand the two-step process of first securing program and then project approval from HUD. Because a first step in this process involves obtaining the required state Attorney General opinion letter which has been identified as a significant barrier, this step should be prioritized. Energize NY's success in obtaining the required statement from the New York Attorney General could serve as a useful model for other states, and is therefore included in **Appendix F**.

To help build the knowledge base around C-PACE applicability for the affordable multifamily housing sector, all approvals by HUD, whether by rule or by waiver, should be identified and cataloged as they occur. This will provide subsequent projects in different HUD jurisdictions that are encountering the same barriers with contacts and examples of specific projects that have previously overcome these obstacles.

Require Cost-Effective Investments

A fundamental principle of both residential and commercial PACE is that investing in a building is prudent because the annual expense of the special assessment is no higher than the avoided cost of the energy use (or generation in the case of renewables). In fact, consent from existing lienholders is frequently predicated on this positive relationship. While not all C-PACE programs require some measure of cost-effectiveness, this is a sound one that should be encouraged.[42]

Consider Local Development Corporations (LDCs)

Due to the often greater complexity of affordable multifamily financing transactions compared to other commercial building financing transactions, there is a lack of attention to this sector by many PACE administrators. To ensure that this underserved market benefits from C-PACE financing, we recommend that a state's enabling legislation encourage the use of administrators that see the affordable housing multifamily market as a priority. This can mean more active marketing to the multifamily sector as well as the willingness to finance smaller transactions. New York legislation allows for a local development corporation, which is established specifically to provide PACE financing to properties within municipalities that have passed enabling local law. This structure provides two benefits: first, the ability to do transactions that are much smaller than the typical C-PACE lender will consider because of the non-profit status of the LDC; and second, the role of the local municipality in providing a service to properties in their jurisdiction supports the rationale for a senior lien and should be a positive factor in obtaining lender consent as lenders are well accustomed to subordinating their own liens to local tax liens. PACE administrators should review whether similar structures are provided for in their jurisdictions; if so, there may be a role for such an entity in an 'open' PACE program. If not, evaluation of the long-term results of local development corporations may indicate that this is an option worth considering in future enhancements to PACE enabling legislation.

Consider Extended Financing Terms Rather than Rate Buy Downs

Properly designed, the PACE structure will produce an annual assessment cost that is less than modeled energy savings. In the case where a proposed PACE financing does not accomplish this, there are two possible responses. One common technique (in energy financing) is to reduce the interest rate through an interest rate buy down (IRB). IRBs are very expensive for long-term financing, and can easily exceed 20-30% of the assessment. For this reason, good program design should not include IRBs for long-term PACE financing as the costs of such a feature are prohibitive, making the model less sustainable programmatically.[43]

The other, more sustainable option is to extend the term of the PACE financing. Although this will not reduce the total cost (in fact, it may slightly increase it), a term extension will result in *each year's* cost being lower without requiring an IRB. C-PACE programs should be encouraged to allow the longest financing term possible, typically to a maximum of 20 to 25 years (although there are programs that allow terms as long as 30 years), bearing in mind that the term cannot exceed the expected useful life of the measure that is financed (dollar-weighted in the case of multiple measures). In this way, C-PACE financing can be offered without resorting to expensive interest rate subsidies.

Financing structures in the affordable housing sector frequently include amortization periods longer than loan terms, with a balloon payment at the end of the loan term. Although this is not generally a feature of C-PACE financing, it is worth noting that if such a structure were available for the affordable housing sector, it could be matched to the LIHTC compliance period and greatly improve cash flow during the assessment term, while lining up the timing of the balloon payment with the next syndication period.

Consider Potential in USDA Properties

As we heard from Lean & Green Michigan, USDA is keenly interested in seeing C-PACE financing used to energy retrofit their rural properties. This could be a good opportunity for C-PACE administrators interested in the affordable multifamily rural market to learn more and better understand the potential opportunity for C-PACE with USDA properties. The USDA could be a strong partner in exploring the value added from C-PACE in rural areas, as the agency has shown itself to be willing to share and transfer information and lessons learned between its regional divisions, thus facilitating change throughout its network.

FOR AFFORDABLE HOUSING STAKEHOLDERS — IMPLEMENTING C-PACE

While legislative and program design changes can improve the relevance of C-PACE for affordable multifamily housing, there remains a critical role for building owners, property managers, and affordable housing providers to play in fostering wider scale implementation. Clearly, getting to scale is not around the corner. However, affordable housing stakeholders may benefit from considering C-PACE as a financing tool in specific situations. The following recommendations are intended for this audience.

Consider PACE as Gap Financing

Though C-PACE interest rates are higher relative to other options available when recapitalizing affordable multifamily projects, it can play a role as a gap filler when other financing sources are capped and/or limited. For example, tax-credit equity investors are a critical piece of affordable multifamily housing financing, but the 9% LIHTCs are scarce and allocations are highly competitive. The 4% LIHTCs are more generally available, but can only be applied in limited circumstances. The amount of private equity investment is based on expectation of cash flow after payment of all project obligations, and possibly expectation of sales proceeds, in addition to tax benefits. In addition, HUD- and FHA-insured mortgage loans have maximums per unit and frequently do not cover all costs. However, PACE assessments are not considered when calculating debt service coverage ratios which limit total debt capacity, creating an opportunity to use C-PACE to increase investment in cost effective energy efficiency.

The "last piece" of the capital stack can sometimes play a very important role in retaining efficiency measures that might be value engineered out during bidding, contracting, or construction. Having the ability to use C-PACE to maintain all cost-effective energy retrofits, potentially in combination with ancillary items (for example, a new roof in a solar project) whether the project is focused on energy only or is part of a wider rehabilitation, is a significant benefit.

Prioritize PACE for Recapitalization — Not for Mid-Cycle Retrofits

PACE may be best suited for projects that are going through recapitalization, when all financing parties are already at the table. Securing consent from all parties — in addition to HUD — for a standalone project is probably cost and time prohibitive. Using C-PACE as part of a recapitalization project also fits with our finding that this tool is best used to fill financing gaps, complementing other potentially longer-term and lower-rate sources. Finally, PACE financing can be structured so that the tax assessment obligation is fully paid off at the same time as the succeeding recapitalization, allowing for the next period to begin with a clean slate. Although not required or even necessary in many cases, it is an example of the flexibility of the PACE financing structure.

For mid-cycle financing, C-PACE will be most useful for those properties that have the fewest constraints imposed by existing debt or subsidy structures. The more complex the existing financing, the less likely it is that the necessary approvals can be obtained. This is especially true for tax equity investors who have little motivation to allow additional liens to be placed on the property.

Finally, C-PACE can also be a good financing option to address energy measures that were 'value engineered' out of the most recent retrofit. In those cases, where a property's energy retrofit needs can be addressed with a standalone project that has sufficiently good economics, C-PACE can be a good choice for financing, because the PACE assessment is not treated as additional debt in the capital stack, but rather as an annually occurring tax obligation. If the Savings to Investment Ratio (SIR) of the project is greater than one, the case can be made that the net result of the energy work and the PACE financing will be improved cash flow, to the obvious benefit of existing debt holders.

Encourage State Housing Finance Agencies Involvement

As a potentially powerful force for helping a state's affordable multifamily stock become more energy efficient, state housing finance agencies across the country can work together to understand the role that C-PACE can play in their portfolios. A collaboration of interested C-PACE administrators in concert with a collaboration of interested HFAs could drive the market to higher levels of activity. Our research found no guidance from HFAs, and such guidance could be very helpful in transferring knowledge from one jurisdiction to another. One area of emphasis should be the impact of C-PACE financing on LIHTC allocations; to the extent that PACE financing can save scarce competitive LIHTC tax credits for other projects, this could drive interest from HFAs and ultimately demand from projects.*

Continue to Document and Codify the Use of C-PACE in Multifamily Affordable Housing

Whether undertaken by a collaboration of interested C-PACE administrators or a set of affordable housing providers, there is a real need to identify and document challenges and barriers in the practice of using C-PACE to energy upgrade affordable multifamily housing. This will help new users enter the market with more realistic knowledge and expectations of what is ahead, and will provide the resources necessary to replicate and scale.

*It is worth noting that multifamily affordable housing with apartments that are individually metered, creates a "split incentive" that makes it difficult for property owners to capture savings from increased energy efficiency. The practice of individually metering apartments is part of Enterprise Green Communities standards for local public housing agencies, These properties may be less likely to utilize C-PACE compared to properties that are master metered.

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APPENDIX A: APPROACH

We reviewed data in PACENation (http://pacenation.us/) and identified (a) states that have C-PACE enabling legislation, (b) states that have active C-PACE programs, and (c) states that have active C-PACE programs with financed projects. Next, to learn about the number and type of transactions completed through each program, we reached out to program administrators for all active programs. Finally, to understand and identify characteristics of the enabling legislation and program design that help or hinder deployment of C-PACE in the affordable multifamily sector, we conducted interviews with programs that had shown some ability to move PACE financing into affordable housing.

Documentation

The results of this data collection effort are presented in **Appendix B** and **Appendix C**. **Appendix B**, **Enabling Legislation**, lists all states and the District of Columbia and identifies whether they have passed C-PACE enabling legislation and, if so, the year in which such legislation was passed. The spreadsheet includes live weblinks to all enabling legislation for convenience. **Appendix C**, **Programs and Transactions**, carries forward all states from the first worksheet for which enabling legislation is enacted, and provides additional detail program by program, including to the extent that we have determined: the date the program was established, whether it has any financed projects, and the numbers of total transactions, total multifamily transactions, and the total number of affordable multifamily transactions, including a breakdown of market rate (naturally occurring affordable housing), assisted, and public housing. This breakdown of affordable multifamily housing types is described in more detail below. Additionally, we characterize each program as either a financing program or an administrator (described below).

Programs: Financing v. Administrator

For each program listed, we have identified whether the program is a PACE financing program or a PACE administrator. It became clear as we conducted our interviews that this distinction is important because some program administrators use external financing sources, which then may also be included as separate programs on the spreadsheet. By differentiating between them, we can use the Administrator data when aggregating and thus avoid double counting transactions. This is especially important in "Open PACE" programs, which have multiple financing sources competing for business, as opposed to "Closed PACE" programs, which have a one-to-one relationship between financing sources and administrators.

Affordable Multifamily Housing

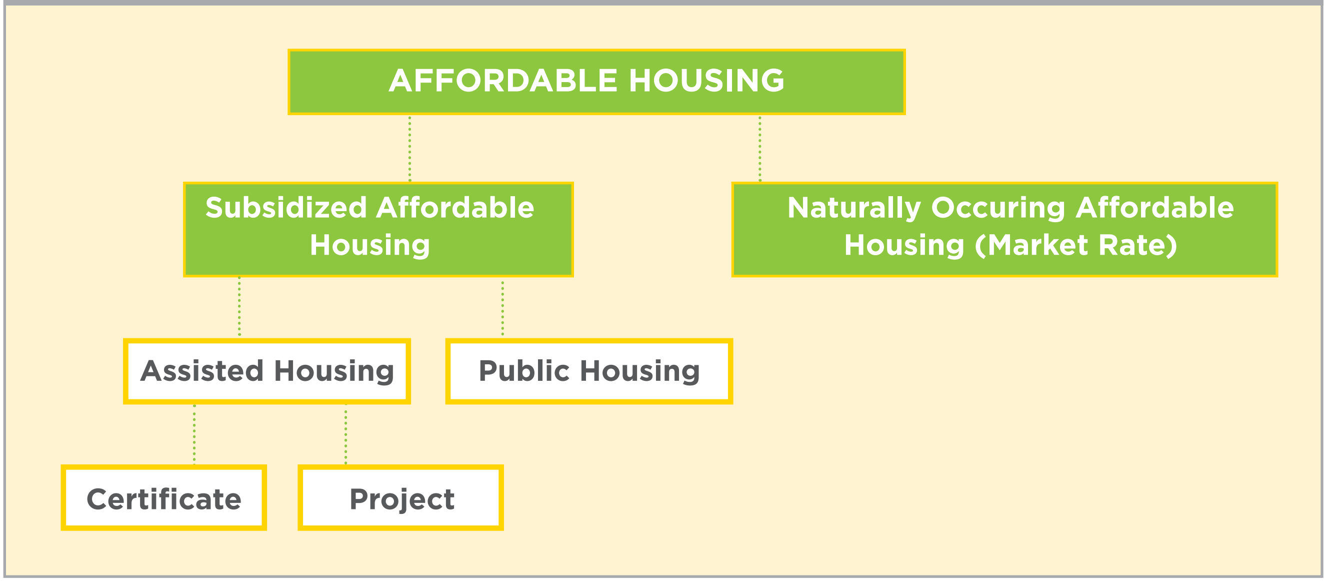
Figure 3 below presents a breakdown of the subsectors of affordable multifamily housing. The three boxes highlighted in yellow—naturally occurring affordable housing (NOAH), assisted housing, and public housing—represent the mutually exclusive types of affordable housing for which we enumerate PACE transactions in the accompanying spreadsheet on C-PACE programs and transactions. This distinction is important because the types and sources of housing financing or subsidies for affordable housing affects which rules and guidelines pertain.

Public Housing. Public housing includes units that are owned and operated by state or local housing agencies, which receive allocations of HUD funding to build, operate, and improve low-income housing. There are approximately 1.1 million public housing units in the US.[44] Due to an estimated $26 billion backlog of capital improvements in this housing, HUD is now piloting a program to move some of these units from the public portfolio to the assisted portfolio, through its Rental Assistance Demonstration (RAD) project, so that the underlying real estate asset can be used as collateral for financing, which is prohibited under PHA regulations.[45]

Assisted Housing. In its broad form, assisted housing can be comprised of either project-based or tenant-based assistance, depending on whether the project or the resident receives the subsidy or assistance. (Tenant-based assistance is addressed in the next section, as assistance vouchers are often used in naturally occurring affordable housing.) There are a variety of programs within three agencies of the federal government that provide project-based assistance. The agencies are HUD (Sections 8, 212, 221, 236, and others), USDA (Section 515), and the US Treasury (principally low-income housing tax credits). There are approximately 1.4 million project-based assisted housing units.[46] Project-based assistance can be in the form of reduced capital financing (principally mortgages), ongoing operating subsidies, or a combination of the two.

Naturally Occurring Affordable Housing. This category is just as it sounds: It includes those units of housing that, by virtue of their rent levels and the income levels of households that would rent them, are assumed to be affordable to a low-income household (at or below 80% of area median income). Ownership and financing in this sector can be as simple as a person who owns a building with no mortgage to the most complex of real estate investment trusts and strategies. Many of these buildings have ready access to commercial financing. CoStar estimates that there are approximately 5.5 million NOAH units in the U.S.[47] and the Center for Budget and Policy Priorities estimates there are approximately 2.2 million Housing Choice Vouchers.[48]

FIGURE 3: Affordable Housing Breakdown



APPENDIX B: ENABLING LEGISLATION

ALL STATES	C-PACE Enabled	Date Enacted	Enabling Legislation	Additional Legislation				
Alabama	Y	2015	SB220 / Act No. 2015-494	--	--	--	--	--
Alaska	N	--	--	--	--	--	--	--
Arizona	N	--	--	--	--	--	--	--
Arkansas	Y	2013	SB 640 / Act 1074	--	--	--	--	--
California	Y	2008	AB 811 (2008)	SB 555 (2011)	AB 474 (2009)	SB 77 (2010)	AB 184 (2011)	AB 1883 (2014)
Colorado	Y	2010	SB 10-100	SB 13-212 (2013)	SB 14-171 (2014)	HB 14-1222 (2014)	--	--
Connecticut	Y	2011	SB 1243	SB 501	HB 6991 / Act no. 15-21	--	--	--
Delaware	N	--	--	--	--	--	--	--
District of Co-lumbia	Y	2010	DC Law 18-183	DC Law 19-262	--	--	--	--
Florida	Y	2010	CS/HB 7179	Title XI, Chapter 163	--	--	--	--
Georgia	Y	2010	HB 1388	--	--	--	--	--
Hawaii	Y		HRS § 46-80 et seq.	--	--	--	--	--
Idaho	N	--	--	--	--	--	--	--
Illinois	Y	2010	Act 096-0481	--	--	--	--	--
Indiana	N	--	--	--	--	--	--	--
Iowa	N	--	--	--	--	--	--	--
Kansas	N	--	--	--	--	--	--	--
Kentucky	Y	2015	HB 100	--	--	--	--	--
Louisiana	N	Re-pealed 2016	HB 766 (re-peal)	SB 224 (2009)	HB 973 / Act No. 611	--	--	--
Maine	N	--	--	--	--	--	--	--
Maryland	Y	2009	HB 1567	SB 186 / Ch. 472	--	--	--	--
Massachusetts	Y	2010	Ch. 44, § 53E 3/4	Ch. 188 / HB 4877	H.4568	--	--	--
Michigan	Y	2010	HB 5640	Act 270	--	--	--	--
Minnesota	Y	2010	HF 2695	HF 3729	--	--	--	--
Mississippi	N	--	--	--	--	--	--	--
Missouri	Y	2010	Ch. 67.2800-67.2835 H.B. 1692	--	--	--	--	--
Montana	N	--	--	--	--	--	--	--
Nebraska	Y	2016	LB1012	--	--	--	--	--

APPENDIX B: ENABLING LEGISLATION (CONTINUED)

ALL STATES	C-PACE Enabled	Date Enacted	Enabling Legislation	Additional Legislation				
Nevada	Y	2009	SB 358	NRS Sec. 271	--	--	--	--
New Hampshire	Y	2010	Statutes § 53-F	HB 205 / Ch. 121	--	--	--	--
New Jersey	Y	2012	Ch 187 / S.B. 1406	--	--	--	--	--
New Mexico	Y	2009	HB 0572	SB 0647	--	--	--	--
New York	Y	2012	Article 5-L	--	--	--	--	--
North Carolina	Y	2008	N.C. Gen. Stat. § 153A-210.1	N.C. Gen. Stat. § 160A-239.1	SB 284 (2015)	--	--	--
North Dakota	N	--	--	--	--	--	--	--
Ohio	Y	2010	SB 232	Ch. 717.25	Ch. 1710	--	--	--
Oklahoma	Y	2009	SB 668	SB 102	--	--	--	--
Oregon	Y	2014	HB 4041	SB 85	--	--	--	--
Pennsylvania	N	--	--	--	--	--	--	--
Rhode Island	Y	2015	H5900 Chapter 39-26.5	--	--	--	--	--
South Carolina	N	--	--	--	--	--	--	--
South Dakota	N	--	--	--	--	--	--	--
Tennessee	N	--	--	--	--	--	--	--
Texas	Y	2013	SB 385	HB 3187	--	--	--	--
Utah	Y	2013	SB 221	SB 0273	--	--	--	--
Vermont	N	--	--	--	--	--	--	--
Virginia	Y	2009	Ch. 773	Ch 9, sec 15.2-958.3	Ch. 389	--	--	--
Washington	N	--	--	--	--	--	--	--
West Virginia	N	--	--	--	--	--	--	--
Wisconsin	Y	2010	Act 272 / SB 642	Act 138 / SB 425	--	--	--	--
Wyoming	Y	2011	H 0179	--	--	--	--	--

APPENDIX C: PROGRAMS AND TRANSACTIONS

STATES WITH ENABLING LEGISLATION	C-PACE Enabled	Date Enacted	Active Program	C-PACE Programs	Financing / Administrator	Date Program Established
Alabama	Y	2015	N	--	--	--
Arkansas	Y	2013	Y	Arkansas Advanced Energy Equity Program (A2E2)	A	2014
			Launched	Pulaski County PACE	--	--
California	Y	2008	Launched	Alliance NRG	F	2013
			Y	CaliforniaFIRST	A	2012
			Y	Commercial PACEDirect (CleanFund)	F	2013
			Y	Figtree PACE	F/A	
			Y	GreenFinanceSF	A	2010
			Y	LA PACE	A	
			Y	mPower	A	2010
			Y	PACE Funding	F	2015
			Y	Samas	F	--
			Y	Sonoma County Energy Independence Program	A	2009
			Y	Ygrene Works	A	2012
Colorado	Y	2010	Y	CO C-PACE	A	2013
Connecticut	Y	2011	Y	C-PACE	A	2012
District of Columbia	Y	2010	Y	DC PACE	A	2012
Florida	Y	2010	Y	Ygrene Works	A	2012
			Y	Alliance NRG (FL PACE Funding Agency)	A	2013
			Launched	Leon County PACE	A	2012
			Y	RenewPACE	A	
			Y	SELF	F	2014
Georgia	Y	2010	In development	Clean Energy Works	--	--
Hawaii	Y		N	--	--	--
Illinois	Y	2010	N	--	--	--
Kentucky	Y	2015	Y	KY-PACE	A	--
Maryland	Y	2009	Launched	MD-PACE	A	2015
			Launched	Montgomery County PACE	A	2015
Massachusetts	Y	2010	N	--	--	--
Michigan	Y	2010	Y	Ann Arbor PACE	A	2012
			Y	Lean & Green Michigan	A	2012

STATES WITH ENABLING LEGISLATION	Funded Projects	Date of First Transaction	Total Transactions	Total Multifamily Transactions	Affordable Multifamily Transactions		
					Market (NOAH)	Assisted	Public (PHA)
Alabama	--	--	--	--	--	--	--
Arkansas	Y	2016	1	1	0	0	0
Arkansas	N	--	--	--	--	--	--
California	N	--	--	--	--	--	--
California	Y	2012	56	3	2	1	0
California	Y	2016	64	1	0	0	0
California	Y	2014	59	0	0	0	0
California	Y	2012	2	0	0	0	0
California	Y	--	--	--	--	--	--
California	Y	2010	26	0	0	0	0
California	Y	--	--	--	--	--	--
California	Y	--	--	--	--	--	--
California	Y	2009	67	2	0	0	0
California	Y	2013	308	0	0	0	0
Colorado	Y	2016	4	0	0	0	0
Connecticut	Y	2013	170	5	4	0	0
District of Columbia	Y	2013	11	2	0	2	0
Florida	Y	2013	79	0	0	0	0
Florida	Y	2016	--	--	--	--	--
Florida	N	--	--	--	--	--	--
Florida	Y	--	--	--	--	--	--
Florida	Y	2014	5	1	1	0	0
Georgia	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--
Illinois	--	--	--	--	--	--	--
Kentucky	Y	--	--	--	--	--	--
Maryland	N	--	--	--	--	--	--
Maryland	N	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--
Michigan	Y	2013	5	0	0	0	0
Michigan	Y	2014	7	2	0	1	0

APPENDIX C: PROGRAMS AND TRANSACTIONS (CONTINUED)

STATES WITH ENABLING LEGISLATION	C-PACE Enabled	Date Enacted	Active Program	C-PACE Programs	Financing / Administrator	Date Program Established
Minnesota	Y	2010	Y	MinnPACE / St. Paul Port Authority	A	2013
Minnesota	Y	2010	Y	Southwest Regional Development Commission	A	2010
Missouri	Y	2010	Y	MO Clean Energy District / HERO Program	A	2010
Missouri	Y	2010	Y	Set the PACE St. Louis	A	2013
Missouri	Y	2010	Y	Show Me PACE	A	2015
Nebraska	Y	2016	N	--	--	--
Nevada	Y	2009	N	--	--	--
New Hampshire	Y	2010	Launched	NH C-PACE	A	2016
New Jersey	Y	2012	Launched	Alliance NRG	F	--
New Jersey	Y	2012	In development	New Jersey PACE (NJ PACE)	A	--
New Mexico	Y	2009	N	--	--	--
New York	Y	2012	Y	Energize NY	A	2014
North Carolina	Y	2008	N	--	--	--
Ohio	Y	2010	Y	Columbus Region Energy Fund	A	2015
Ohio	Y	2010	Launched	NOPEC PACE	A	2016
Ohio	Y	2010	Y	Ohio PACE	A	--
Ohio	Y	2010	Y	Toledo BetterBuildings NW Ohio	A	2010
Oklahoma	Y	2009	N	--	--	--
Oregon	Y	2014	Launched	PropertyFit OR CPACE	A	--
Rhode Island	Y	2015	Launched	RI PACE	A	2016
Texas	Y	2013	Y	Texas PACE Authority	A	2015
Utah	Y	2013	Y	Utah CPACE	A	2014
Virginia	Y	2009	In development	Loudoun County PACE	A	--
Wisconsin	Y	2010	Y	Me2 Milwaukee	A	2013
Wisconsin	Y	2010	Launched	PACE Wisconsin	A	2017
Wyoming	Y	2011	N	--	--	--

STATES WITH ENABLING LEGISLATION	Funded Projects	Date of First Transaction	Total Transactions	Total Multifamily Transactions	Affordable Multifamily Transactions		
					Market (NOAH)	Assisted	Public (PHA)
Minnesota	Y	2014	180	15	0	0	0
	Y	2014	17	1	0	0	0
Missouri	Y	2014	3	1	0	0	0
	Y	2016	2	2	0	0	0
	Y	2016	7	2	0	0	0
Nebraska	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--
New Hampshire	N	--	--	--	--	--	--
New Jersey	N	--	--	--	--	--	--
	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--
New York	Y	2015	21	4	1	3	0
North Carolina	--	--	--	--	--	--	--
Ohio	Y	2015	3	0	0	0	0
	N	--	--	--	--	--	--
	Y	--	--	--	--	--	--
	Y		100	0	0	0	0
Oklahoma	--	--	--	--	--	--	--
Oregon	N	--	--	--	--	--	--
Rhode Island	N	--	--	--	--	--	--
Texas	Y	2015	9	0	0	0	0
Utah	Y	2015	1	0	0	0	0
Virginia	--	--	--	--	--	--	--
Wisconsin	Y	2014	8	1	0	0	0
	N	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--

APPENDIX D: URBAN INGENUITY MEMO ON PHYLLIS WHEATLEY YWCA PROJECT

URBAN INGENUITY

DCPACE
A CLEAN ENERGY FINANCE SOLUTION
DEPARTMENT OF ENERGY AND ENVIRONMENT

Phyllis Wheatley YWCA Overview:
Using PACE in a HUD Mixed Finance Building Upgrade

Urban Ingenuity administers the DC PACE Commercial financing program on behalf of the Washington DC Department of Energy and the Environment. In this capacity, we recently completed a PACE financing transaction for a HUD-assisted mixed finance affordable housing project in the District of Columbia. We believe that this transaction represents an important precedent for the appropriate use of PACE financing in supporting energy upgrades in HUD-assisted properties administered through local Public Housing Authorities.

As part of the normal course of business, the DC PACE Commercial program received an application for PACE financing from the Phyllis Wheatley YWCA and their developer Dantes Partners. The Phyllis Wheatley YWCA property is an 84 unit multifamily affordable housing project providing supportive services and transitional housing to at-risk women in Washington DC. This project receives financial support from the DC Department of Human Services and the Department of Housing and Community Development. In addition the property receives an operating subsidy from HUD which is managed by the DC Housing Authority (DCHA).

In completing the financial underwriting for this energy retrofit, it was clear to all parties that the project required appropriate review and approval from all of these agencies, including DCHA as the local housing authority, and from HUD. Urban Ingenuity acting as the DC PACE Program Administrator worked closely with the DC Attorney General's Office, the DC Housing Authority and their legal counsel Reno and Cavanaugh, and with the PACE capital provider Amalgamated Bank to develop a transaction structure that responded to concerns presented by DCHA. The resulting transaction structure protects the housing authority's long-term interest in preserving the property as affordable housing. The final transaction structure was formally presented to the HUD Office of Public and Indian Housing and reviewed by both program and legal staff. We present here the details of this conforming PACE transaction structure.

Transaction Structure Overview:

In summary, DC PACE Commercial made the following modifications to a conventional PACE document structure. The principal contractual modifications to PACE in the context of mixed finance agreements are as follows:

1. **Inter-Creditor Agreement:** Signed by the owner, DCHA, and the capital provider, this agreement provided three explicit protections to DCHA to safeguard HUD investments:
    - i. Subordinating the PACE Note to the Declaration of Restrictive Covenant (DORC). The agreement insures the senior filing of the DORC ahead of PACE.
    - ii. Guaranteeing that DCHA has the right to cure any delinquency in PACE payments, guaranteeing that the PACE Note will not enter default
    - iii. Guaranteeing a right of first refusal to DCHA to repurchase the property in the event of any default and foreclosure, ensuring management as affordable housing

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2. **Declaration of Trust:** The standard DOT includes language that ownership transfer under PACE is conditioned on observing the DOT/DORC.
3. **Mixed Finance ACC Amendment:** Additional language restates the PACE subordination to the DOT/DORC through the inter-creditor agreement.
4. **Rental Term Sheet:** HUD formally approved terms outlined in the rental term sheet that explicitly acknowledge PACE financing along with ACC payments, in the capital stack.
5. **PACE Documents:** All key PACE documents establishing the special assessment and the payment obligations and penalties under DC PACE, specifically reference the inter-creditor agreement and the subordination of the PACE Note to the DORC. Specifically these special features of the transaction are referenced in the PACE Funding Agreement, the PACE Assessment Agreement, and the Memorandum of Special Assessment.

PACE Project Summary:

The Phyllis Wheatley YWCA project preserves 84 units of affordable housing in a rapidly gentrifying neighborhood. PACE will support substantial building upgrades that are critical for the property. The project serves a population of individuals that were formerly homeless or at high-risk of homelessness. Due to the needs of the tenants, a high level of services will be provided on site. A local service provider will offer on-site case management for some of the residents, as well as providing linkages to employment, substance abuse, and medical services.

The PACE financing will bring solar and deep energy saving upgrades to rehabilitate this affordable housing property. The project is financed using 9% Low Income Housing Tax Credits (LIHTC) with additional support from DCHA, DHCD, DHS and HUD, showcasing interagency collaboration on clean energy and housing affordability.

PACE Assessment Highlights:

- DC PACE approved up to $700,000 of financing to support energy efficiency measures, water conservation, and solar PV (Including: HVAC equipment and controls; lighting equipment and controls; domestic water heating equipment and controls; plumbing systems; and a 32.7 kW roof-mount solar PV system)
- These upgrades reduce energy use 24% and water use 47%, and together they will reduce annual CO_2 emissions by 114 metric tons.
- The investment is cash flow positive, yielding improved net operating income from the asset after all project costs. The property will save a net of approximately $6,000 annually, or $90,000 over the 15-year term of the PACE note.

APPENDIX E: C-PACE FOR MULTIFAMILY RESOURCES

The following resources have been identified as potentially helpful to C-PACE administrators or housing providers. A high-level summary of each resource is provided.

Utah C-PACE Program Guidelines and Road Map

Utah, with enabling legislation passed in 2013 and Utah CPACE established in 2014, was relatively early to pursue C-PACE financing. However, after a quick start and hopes of broad uptake, only one project was completed in Utah, at the Hunt Electric Headquarters. To assess the cause of this slow uptake, the Governor's Office of Energy Development began research and convened an advisory committee to determine whether other statewide C-PACE programs were experiencing similar barriers. Findings of this research informed the 2017 Utah legislative session and led to significant changes and updates in program design, which are currently being implemented.[49]

Serving as a resource to developers in Utah, changes to the Utah CPACE program are documented in the Utah C-PACE Program Guidelines;[50] findings from the research and advisory committee process provide a good resource for other administrators and are included in the Utah C-PACE Road Map: Status and Recommendations, from Utah Clean Energy.[51]

Seven barriers were identified through Utah Clean Energy's research, none of which pertain directly to the question of the applicability of C-PACE to multifamily affordable housing, so they are not reiterated here.

PACE Financing Opportunities in the Affordable Housing Sector, Texas PACE Authority

Austin Mayor Steve Adler, as part of a housing preservation strategy in 2015, urged the use of PACE to preserve affordability. Texas had not yet leveraged PACE as a financing tool for affordable housing retrofits and rehabilitation projects, and Mayor Adler created a committee to address the perceived barriers. Additionally, this paper, authored by Laura Sanchez,[52] a Master's of Public Policy candidate at UC Berkeley's Goldman School of Public Policy, was intended to serve as a resource for increasing the use of PACE in the affordable housing sector, and therefore serves as a tool for other PACE administrators.

This paper finds that the greatest opportunity for the affordable housing sector to leverage PACE financing is in Public Housing Authorities (PHA) participating in HUD's RAD program. Additionally, properties funded by the USDA Rural Development programs present good candidates for PACE financing. In addition to providing many valuable resources, this paper makes five specific recommendations to policymakers to overcome the barriers to using PACE including to lead by example, combine efforts and funds, amend the Texas PACE Act to make government-owned affordable housing eligible, utility allowance reform, and establish FHFA guidelines.[53]

Energize New York Benefit Finance Multifamily Program Handbook

The Energy Improvement Corporation (EIC) is the program administrator for Energize NY. In 2013, it compiled a guide for multifamily property owners interested in C-PACE financing. The handbook includes an overview of PACE, benefits to property owners, and a step-by-step guide walking the user through the C-PACE process in New York, including information on obtaining lender consent. Materials such as an application checklist, a list of participating municipalities, necessary application forms, and other useful references are included.[54]

Database of State Incentives for Renewables & Efficiency

The Database of State Incentives for Renewables & Efficiency, DSIRE, is a website of Office of Energy Efficiency and Renewable Energy (EERE) of the U.S. Department of Energy (DOE) and North Carolina Clean Energy Technology Center at N.C. State University.[55] This website is the “most comprehensive source of information on incentives and policies that support renewables and energy efficiency in the United States.” It is exceptionally well maintained and current.

We used this resource as a cross-check to PACENation for PACE-enabling legislation and PACE programs. In addition, we would recommend that PACE administrators should be well acquainted with this data source in order to check for available resources and should refer their potential clients to this information to ensure that they are accessing all available efficiency and renewable incentives in order to reduce the amount of project financing necessary.

APPENDIX F: NEW YORK STATE ATTORNEY GENERAL OPINION LETTER

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

ERIC T. SCHNEIDERMAN
ATTORNEY GENERAL

BARBARA D. UNDERWOOD
SOLICITOR GENERAL

Telephone (518) 776-2009

June 8, 2017

Arden Sokolow
Regional Director
Jacob K. Javits Federal Building
26 Federal Plaza
Suite 3541
New York, NY 10278-0068

Dear Ms. Sokolow:

The Executive Director of the Energy Improvement Corporation (EIC) has explained that you seek confirmation that New York's law enabling the Property Assessed Clean Energy (PACE) Program establishes that PACE financings meet certain requirements. As explained below, PACE financings provided through EIC's authority meet these requirements: the financings are special assessments and are collected in the same manner as real estate taxes.

New York law authorizes municipalities to establish by local law a "sustainable energy loan program" that allows an adopting municipality to offer loans for residential and commercial properties within the municipality to finance the installation of renewable energy systems and energy efficiency improvements. General Municipal Law § 119-gg(1),(2). It is under this authority that the PACE Program operates in New York.

The participating municipality may require that the loan made under the program be repaid through a charge on the real property benefitted by the loan. General Municipal Law § 119-gg(9). If the municipality so requires, then the charge will be separately listed and levied and collected at the same time and in the same manner as municipal taxes. *Id.*

To help municipalities implement this authority, EIC—a local public authority controlled by local governments that wish to offer PACE financings—administers a sustainable energy loan program through the local authority granted by EIC's participating municipalities. To participate in EIC's program, a municipality must have adopted a local law that provides that a loan made under the program "shall be levied and collected at the same time and in the same manner" as property taxes. *See* Model "Sustainable Energy Program Local Law," § 8(A), *available at*

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http://energizeny.org/eic/archives/category/enabling-legislation and EIC/Municipal Agreement, § 2(b), *available at* http://energizeny.org/images/uploads/2_Municipal_Agreement_restricted.pdf; *see also, e.g.*, Albany County, N.Y., Local Law D, § 9(A) (2016); Nassau County, N.Y., Local Law No. 6, § 7(A) (2016); Kingston, N.Y., Local Law No. 3, § 8(A) (2015); and Troy, N.Y., Code ch. 37, § 37-8(A) (examples of the Model Local Law as adopted by a participating municipality). Thus, while the authorizing state statute *allows* a municipality to levy and collect the loan at the same time and in the same manner as municipal taxes, EIC *requires* a participating municipality to do so.

Therefore, in response to your inquiry, a municipality participating in EIC's sustainable energy loan program necessarily has adopted a local law that provides that the obligation is a special assessment and will be treated in a similar manner as the municipality's real estate taxes.

Very truly yours,

Kathryn Sheingold

KATHRYN SHEINGOLD
Assistant Solicitor General
In Charge of Opinions

Cc by email: Richard Daugherty
Mark Thielking, EIC

Endnotes

1 There is ongoing discussion that the Financial Accounting Standards Board (FASB) may eventually conclude that PACE transactions should be brought fully onto the balance sheet, with concerns raised that PACE transactions are, in fact, long-term obligations of the borrowing entity, and should be treated as such. Similar conclusions were reached by FASB regarding operating leases, which were formerly excluded from the balance sheet but must now be included. Case examples of these obligations being fully transferred to the new property rather than being repaid at time of sale might help to resolve this issue and maintain this off-balance sheet treatment.

2 This "pay for itself" principle means that expected savings are greater than expected costs. Savings are defined as the net present value of the positive impacts of the energy improvements. Savings can include reduced utility bills as well as payments for renewable energy credits, tax credits, or other quantifiable operations and maintenance costs, plus environmental and health benefits that are monetized.

3 The data presented above are current as of September 15, 2017.

4 The distinction between "Administrative" and "Financing" programs is described in Appendix A.

5 Appendix C presents all data collected by program and indicates those programs for which we were unable to obtain data.

6 A breakdown of multifamily housing types and definitions are included in Appendix A.

7 http://pacenation.us/case-studies/

8 John D'Agostino (Senior Manager, Connecticut Green Bank), in discussion with the authors, July 19, 2017.

9 Mark Thielking (Executive Director, Energize NY) and Jessica Waldorf (Project Manager, NYSERDA), in discussion with the authors, July 21, 2017.

10 Simón Bryce (Vice President, CPACE Execution, Renew Financial — CaliforniaFIRST Program administrator), in discussion with the authors, August 2, 2017.

11 Jacqueline Hudson (Reporting and New Project Officer, Florida SELF), in discussion with the authors, July 27, 2017.

12 Cory Connolly (Chief Operating Officer, Lean & Green Michigan), in discussion with the authors, July 28, 2017.

13 Simón Bryce (Vice President, CPACE Execution, Renew Financial — CaliforniaFIRST Program administrator), in discussion with the authors, August 2, 2017.

14 Bracken Hendricks (Chief Executive Officer, Urban Ingenuity), in discussion with the authors, July 20, 2017.

15 Mark Thielking (Executive Director, Energize NY) and Jessica Waldorf (Project Manager, NYSERDA), in discussion with the authors, July 21, 2017.

16 Bracken Hendricks (Chief Executive Officer, Urban Ingenuity), in discussion with the authors, Oct 11, 2017

17 Bracken Hendricks (Chief Executive Officer, Urban Ingenuity), in discussion with the authors, July 20, 2017.

18 Mark Thielking (Executive Director, Energize NY) and Jessica Waldorf (Project Manager, NYSERDA), in discussion with the authors, July 21, 2017.

19 Ibid

20 The distinction between 'open' and 'closed PACE programs is described in Appendix A.

21 Simón Bryce (Vice President, CPACE Execution, Renew Financial – CaliforniaFIRST Program administrator), in discussion with the authors, August 2, 2017.

22 Administrative Guidance for Multifamily Property Assessed Clean Energy (PACE) in California, U.S. Department of Housing and Urban Development, January 29, 2015. https://portal.hud.gov/hudportal/documents/huddoc?id=MF_PACE_CA_Memo.pdf.

23 Administrative Guidance for Multifamily Property Assessed Clean Energy (PACE), Housing Notice H 2017-01, U.S. Department of Housing and Urban Development, January 11, 2017. https://portal.hud.gov/hudportal/documents/huddoc?id=17-01hsgn.pdf.

24 These 12 states are part of the Energy Efficiency for All (EEFA) demonstration, a partnership of the Energy Foundation, Elevate Energy, National Housing Trust and Natural Resources Defense Council, made possible with funding support from The JPB Foundation.

25 https://portal.hud.gov/hudportal/documents/huddoc?id=17-01hsgn.pdf

26 The quoted language here centers on mortgagee (i.e. mortgage lender), and may ultimately need to be changed. There is at least one example to date of HUD approval being required, not because of its position as a mortgage holder, but rather its position as contracting party to an ACC.

27 See page 3 of the HUD Housing Notice, https://portal.hud.gov/hudportal/documents/huddoc?id=17-01hsgn.pdf

28 https://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/guidebooks/hsg-GB4430

29 https://www.nixonpeabody.com/-/media/Files/Alerts/AffordableHousingAlert_06262007.ashx.

30 Richard Daugherty (Branch Chief, Account Executive Branch, U.S. Department of Housing and Urban Development), in discussion with the authors, July 27, 2017.

31 Fannie Mae Multifamily Green Financing, https://www.fanniemae.com/multifamily/green-initiative, accessed August 1, 2017.

32 Fannie Mae, Multifamily Mortgage Business Lender Letter 13-09, Multifamily Property Assessed Clean Energy (PACE) Programs, November 14, 2013. https://www.fanniemae.com/content/announcement/mfll1309.pdf

33 Ibid

34 As of Q2 2017, Fannie Mae had more than $240 billion in mortgage-backed securities outstanding.

35 https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Statement-on-Certain-Energy-Retrofit-Loan-Programs.aspx

36 There are, of course, at least three counterarguments to this: PACE projects improve cash flow for borrowers as energy savings exceed assessment payments. The value of the building used as collateral for the loan is arguably likely to be increased because of the energy measures installed. PACE assessments, like all property taxes, accrue and do not accelerate, so in an event of

default, the lien priority would have a much smaller effect on subordinate loans than a traditional loan.

37 Freddie Mac Multifamily Green Advantage, http://www.freddiemac.com/multifamily/product/green-advantage.html, accessed August 1, 2017.

38 California: http://www.calhfa.ca.gov/; Georgia: http://www.dca.ga.gov/; Illinois: https://www.ihda.org/; Maryland: http://dhcd.maryland.gov/Pages/default.aspx; Michigan: http://www.michigan.gov/mshda; Minnesota: http://www.mnhousing.gov/wcs/Satellite?c=Page&pagename=External%2FPage%2FEXTHomeLayout&cid=1358904711497; Missouri: http://www.mhdc.com/; New York: http://www.nyshcr.org/Agencies/HFA/; Rhode Island: http://www.rhodeislandhousing.org/; Virginia: http://www.vhda.com/Pages/Home.aspx. Louisiana and Pennsylvania are not C-PACE enabled.

39 http://www.cscda.org/Open-PACE/Documents/Open-PACE-Presentation-1-8-16-final, p.3

40 http://www.figtreefinancing.com/pace-talk-open-market-pace-is-scaling-up/

41 http://www.ncsl.org/research/energy/pace-financing.aspx

42 There are some concerns that it can inhibit the use of C-PACE in new construction (or change of use) projects because there is no 'before' cost from which to calculate energy savings. Sound energy modeling of different building scenarios can provide the information that is needed to determine the relationship of savings to investment, and in fact this is routinely done when certification programs require buildings to be built above code.

43 It is fairly easy to calculate the cost of an IRB, by calculating net present values for the scenario with and without an IRB.

44 https://www.cbpp.org/research/policy-basics-public-housing (accessed 7/21/17).

45 https://portal.hud.gov/hudportal/documents/huddoc?id=Toolkit1WhyRAD.pdf (accessed 7/21/17).

46 http://nlihc.org/issues/project-based (accessed 7/21/17).

47 http://nlihc.org/article/naturally-occurring-affordable-housing-benefits-moderate-income-households-not-poor (accessed 7/21/17).

48 https://www.cbpp.org/sites/default/files/atoms/files/3-10-14hous-factsheets_us.pdf (accessed 7/21/17).

49 Shawna Gabriela Cuan (Energy Efficiency and Programs Manager, Utah Governor's Office of Energy Development, Utah CPACE), in discussion with the authors, July 25, 2017.

50 Utah Governor's Office of Energy Development, Utah C-PACE Program Guidelines, April 2016. https://energy.utah.gov/wp-content/uploads/C-PACE-guidebook_04282016-1.pdf

51 Meghan Dutton, Utah Clean Energy for the Utah Governor's Office of Energy Development, Utah C-PACE Road Map: Status and Recommendations, June 30, 2016.

52 Laura Sanchez with Chaprece Henry and Sarah Ryan for the Texas PACE Authority, PACE Financing Opportunities in the Affordable Housing Sector, 2016. http://blogs.edf.org/texascleanairmatters/files/2016/11/PACE-for-Aff-Housing_FINAL-111416-EDF-KPT.pdf

53 Ibid

54 Energy Improvement Corporation, Inc., Energize New York Benefit Finance Multifamily Program Handbook, July 2013. http://commercial.energizeny.org/uploads/eic-documents/EIC_MF_Handbook_Jul_20131.pdf

55 Database of State Incentives for Renewables & Efficiency, http://www.dsireusa.org/, accessed August 2, 2017.

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