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Acknowledgements

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Executive Summary

Commercial Property Assessed Clean Energy (C-PACE) is a mechanism that enables commercial building owners to finance energy efficiency and renewable energy improvements to their properties through a special assessment, which is then repaid through the owners’ property taxes. C-PACE programs are multi-layered and require the close coordination of both state and local governments, as well as third-party administrators and the private sector. State-local coordination is essential to C-PACE programs as local governments (even in statewide programs) typically need to enable C-PACE in their districts, adjust their tax rolls to account for the C-PACE assessment, possibly collect the assessments and remit them to the capital providers, and provide educational assistance and support to local property owners wishing to make improvements to their properties. The various roles each of these parties play to stand up and implement a successful program means that C-PACE programs that can better coordinate local governments can quickly scale C-PACE activity, leading to greater economic development and furtherance of state and local energy and environmental goals. Furthermore, coordinated C-PACE programs allow more local governments to offer C-PACE than could otherwise be possible. Coordinated C-PACE programs are especially critical for smaller, resource-constrained local governments that frequently see the costs and responsibilities associated with program start-up and implementation as cost-prohibitive. State Energy Offices can play a major role in expanding local government C-PACE adoption and use through convening key C-PACE stakeholders and local governments, working with C-PACE administrators to provide technical assistance to local governments on C-PACE, and serving as either C-PACE program administrators, sponsors, conveners, and/or educators.

This paper presents key considerations and takeaways from a NASEO-hosted roundtable at the 2019 PACENation Conference in Austin, Texas, that focused on best practices for coordinating state and local government C-PACE efforts. Participants in the discussion cited the following best practices to more effectively coordinate state and local government C-PACE program efforts:

- **State Energy Offices can consider assisting in the development of either a statewide model or a state-local opt-in model instead of a pure locally-based model to streamline the C-PACE adoption process.** Statewide C-PACE programs offer economies of scale and standardize the process to join and participate in a C-PACE program, significantly reducing local government barriers such as limited staff capacity and resources. In the absence of a formal statewide model, states can provide education and technical assistance for local governments, building owners, and contractors; help to document and track program successes; or otherwise convene experts and stakeholders to accelerate design and uptake of C-PACE programs.

- **State Energy Offices can emphasize C-PACE’s immediate benefits of economic growth, job-creation, and private investment to local governments.** For many C-PACE stakeholders, the energy efficiency, increased use of renewable energy, and life-safety improvement benefits are important, but secondary to economic development. Marketing efforts that first focus on the economic benefits of C-PACE help make a more effective case for C-PACE at the local level. C-PACE can serve as an excellent entry point for energy literacy among local governments and a chance for states to share additional resources.
Local governments may feel that C-PACE programs require more expertise or administrative effort than they can devote. A State Energy Office (and/or in partnership with the program administrator) can help by providing technical assistance and support as the local government establishes C-PACE. Programs that allow outsourcing of administrative tasks may be more appealing to local governments. Many local governments, especially those located in rural areas, have very limited resources and staffing capacity to spare for implementing C-PACE in their jurisdictions. State Energy Offices and C-PACE administrators that provide technical assistance to local governments on C-PACE can help them maximize the capabilities of their staff to execute a C-PACE program.

Through the use of these best practices, State Energy Offices can be better positioned to coordinate with local governments and C-PACE administrators to help local governments quickly adopt C-PACE and deliver economic and environmental benefits to communities throughout their states.

Introduction
This paper presents an overview of the traditional C-PACE functions and decisions made at both the state and local levels, the trends toward increased consolidation and coordination in statewide C-PACE programs, and best practices for how State Energy Offices and local governments can coordinate to achieve success. Insights from this paper were gleaned from a NASEO-hosted roundtable at the 2019 PACENation conference in Austin, Texas. The roundtable featured representatives from C-PACE program administrators and State Energy Officials from Alabama, Connecticut, Delaware, Montana, New York, Pennsylvania, and Texas, as well as local governments.1 Many of the states and organizations that attended the event are participants in the U.S. Department of Energy’s Commercial PACE Working Group.2 The State Energy Officials and C-PACE administrators present at the roundtable discussed a number of useful C-PACE practices to better coordinate all levels of government. This paper provides a synthesis of these practices, supplemented with NASEO research.

Commercial Property Assessed Clean Energy (C-PACE) is a mechanism that enables commercial building owners to finance energy efficiency and renewable energy improvements to their properties through a special assessment, which is then repaid through the owners’ property taxes. C-PACE programs can offer long-term, property-secured financing to commercial enterprises to implement energy efficiency and renewable energy retrofits. These programs, while still relatively nascent, are now active in over 25 states comprising a majority of the nation’s population and economic activity. As of 2021, C-PACE programs have financed over $2 billion in clean energy retrofits for commercial buildings, and hundreds more

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1 Organizations represented included the Energy Division of the Alabama Department of Economic and Community Affairs, Connecticut Green Bank, Delaware Sustainable Energy Utility, Energize New York, Texas State Energy Conservation Office, and the City of Laredo, Texas.
2 Learn more about the C-PACE Working Group online here: https://www.energy.gov/eere/slsc/commercial-pace-working-group.
C-PACE projects are in the developmental pipeline.³

While C-PACE programs deliver economic and environmental benefits to local communities, the nature of C-PACE means that state and local governments must work in a coordinated fashion to ensure that C-PACE programs operate smoothly and C-PACE project uptake continues to expand. State-local coordination is essential to C-PACE programs as local governments (even in statewide programs) typically need to enable C-PACE in their districts, adjust their tax rolls to account for the C-PACE assessment, possibly collect the assessments and remit them to the capital providers, and provide educational assistance and support to local property owners wishing to make improvements to their properties. These responsibilities can be a heavy lift for local governments. Furthermore, when local governments lack financial support for developing a C-PACE program (e.g., through state-appropriated funds, foundation grants etc.), they may choose not to pursue a program, leaving commercial building owners in their jurisdiction without C-PACE – a valuable financing option for property owners and economic development tool for local governments.

States can closely coordinate with their local governments to ensure that commercial building owners can access C-PACE and accompanying technical assistance needed to make needed efficiency and renewable energy improvements to their properties. While C-PACE is possible without State Energy Office involvement in some states, State Energy Office involvement (regardless of mandates to be involved or not) can expand accessibility and reduce barriers for broader use. State Energy Office support can quickly and effectively expand C-PACE accessibility, allowing more communities to share in the economic, energy, and health benefits associated with energy efficiency and renewable energy investments.

How Can C-PACE Coordination Benefit State and Local Governments?

Table 1: C-PACE Barriers, Coordination Strategies, and State Energy Office Roles

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<th>Barrier</th>
<th>How Coordination Helps</th>
<th>Role in Overcoming Barrier</th>
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<td>Lack of local government resources and expertise to run C-PACE programs.</td>
<td>Resource and best practice sharing between state and local governments and key C-PACE stakeholders can speed education and understanding of C-PACE programs.</td>
<td>State Energy Offices can serve as a technical support resource, providing information to local governments on establishing their own C-PACE programs.</td>
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| High fixed transaction and administrative costs. | Local governments opting into a coordinated statewide C-PACE program can reduce administrative costs and transaction costs due to use of a single administrator operating in a larger overall market. | - State Energy Offices can convene local government representatives to discuss the development of a statewide or state-local opt-in C-PACE program, ensuring the program is responsive to their needs and concerns.  
- State Energy Officials can procure and oversee a statewide third-party administrator. |
| High up-front time and cost requirements for local governments. | Coordination allows local governments to more easily opt-in to a C-PACE program and standardize the process for setting up a program in their jurisdiction. | State Energy Offices can assist in developing template legal, financial, and/or technical resources or other opt-in agreements that make the process of adopting C-PACE easy for local governments. |

The following section, adapted and expanded from NASEO’s 2016 report *Accelerating the Commercial PACE Market: Statewide Programs and State Energy Office Participation in Property Assessed Clean Energy (PACE) Financing*, discusses some of the barriers to C-PACE adoption facing local governments, and how coordination between State Energy Offices, local governments, and key C-PACE stakeholders can overcome those barriers and lead to the use of C-PACE throughout state jurisdictions.

C-PACE financing revolves around local property tax assessments, which means that local governments need to be involved. Traditionally, local governments are expected to take on the already-complex and time-intensive tasks of amending and executing the tax assessment process including software, billing, record keeping, training, and allocating responsibilities with third parties as appropriate, and accommodating, enlisting, and educating the private sector to use C-PACE assessments. This level of effort is problematic for local governments and local programs individually, but also stifles the opportunity for the market at-large. For example, in smaller jurisdictions local governments may lack the resources and expertise needed to authorize and deliver an energy financing program. To launch C-PACE, let alone establish their own program, they face high levels of fixed transaction and administrative costs, such as obtaining legal counsel, hiring or training staff on financing energy projects, developing technical and

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4 The Mid-Atlantic PACE Alliance (MAPA) was convened to harmonize and standardize C-PACE design and implementation across Maryland, Virginia, and Washington, D.C. See more online at: https://www.pacealliance.org/.
financial requirements for programs, and building demand in their communities for clean energy projects.\(^5\) These activities, along with their upfront time and cost requirements, deter resource-strapped municipalities from acting on C-PACE opportunities, particularly if the market demand and program payoffs appear small or uncertain.

C-PACE coordination between State Energy Officials, C-PACE administrators, and local governments may offer a solution to the challenges listed above. Coordination can take various forms: among individual local programs; between local programs and the state government; or even regionally among state, local, and private stakeholders. Partnering entities can implement C-PACE programs through formal processes or informal dialogues, voluntary guidance, or agreements. Regardless of the format, C-PACE coordination often serves to align, aggregate, and organize initiatives that may otherwise be discrete and inconsistent programs. As a result, programs and guidance for the market can have broader geographic reach than a single city or county. In so doing, coordination leads to economies of scale in terms of time and cost savings as well as scalable programs. These economies of scale offer benefits that can accrue to state and local governments and the broader economy. For local jurisdictions, the economies of scale create an opportunity to lower program administration costs, attract more private partners and lower financing costs through competition, improve program terms, and accelerate market maturity and program expansion.

Some of the strongest calls for C-PACE establishment and coordination come from the private sector. The likelihood for program participation and buy-in from several stakeholder groups – including large property owners, project implementers or originators, commercial real estate lenders, and institutional investors – increases with greater market consistency and program uniformity.\(^6\) At the same time, the public and private sectors stand to benefit from the utility cost savings, property improvements, and job creation possibilities that C-PACE projects help materialize.

Over the past several years, states have shifted towards statewide program designs with third-party administrators and oversight from State Energy Offices. Those third-party administrators are taking over some or most of the roles in C-PACE that local governments traditionally perform. For example, Energize New York, a third-party C-PACE administrator in the state, progressively took on more of the local government roles and now the administrator performs almost all of those functions.\(^7\) This level of engagement typically increases costs for the state government or administrator, so increased engagement may not be suitable or desirable for all states. Costs usually increase because the state government or

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\(^5\) Local government responsibilities can be divided into two major groupings: 1) work involved to stand up and administer a program and 2) routine local government processes to levy and assess the C-PACE financing, usually done at the county or city level. The reason this distinction is important is that a smaller local government may be able to participate in a C-PACE program with no actual time or resources because the actual administration of the program elements may be done through a benefit or assessment district and the only remaining tasks are to levy and collect the assessment. This function is performed by the local property tax official who typically can charge a statutory fee for this service. The C-PACE Administrator then prepares the assessment roll and engages the local property and/or tax official through some type of agreement and adheres to their routine deadlines and levy or collection process.


\(^7\) Conversation with Mark Thielking, Co-Executive Director, Energize NY, at PACENation Conference, Austin, TX, April 1, 2019.
administrator must hire additional staff or retain outside counsel to help manage the C-PACE financing process. However, New York’s example illustrates a trend where local governments now expect statewide administrators to make the process of setting up and implementing C-PACE as easy as possible while leaving sufficient autonomy for their own decision making processes. In response, many states are testing out new methods to ensure that local governments feel C-PACE is perceived as a net benefit to them rather than being perceived as a net burden.

**Best Practices to Encourage State - Local Coordination Around C-PACE Programs**

As the C-PACE market matures over time, those C-PACE programs that are now well-established can provide a template for states wishing to develop or modify their own C-PACE programs without “reinventing the wheel.” Many of the best practices that mature programs are implementing revolve around ensuring that local governments are able to easily access the benefits of C-PACE as an economic development tool. Successful programs reduce or eliminate many of the hurdles that local governments must overcome to access C-PACE.

The best practices listed below represent a gradient of options where State Energy Offices can get involved without having to stretch staff time or monetary resources. If states and/or administrators take on more roles for C-PACE that local governments typically perform, they will incur higher costs. However, there are ways to adopt best practices while managing costs. Best practices include prioritizing the roles of the State Energy Office based on its capability or expertise to efficiently deliver support. For example, the State Energy Office may choose to provide education and training to local governments instead of taking a more active role in the day-to-day management of a C-PACE program, or the State Energy Office may choose to provide targeted assistance to local governments for high-priority needs. A State Energy Office may also decide to run the entire program by itself. Regardless, the State Energy Office can positively impact the development of C-PACE through the practices below even if it chooses to take on a more limited role in C-PACE program management.

*State Energy Offices can consider assisting in the development of either a statewide model or a state-local opt-in model instead of a pure locally-based model to streamline the C-PACE adoption process.*

While states design and administer C-PACE programs differently, depending on (1) how much discretion the statute gives to local governments or requires of an State Energy Office and (2) what organizations exist to administer the program, many states are moving towards models that allow for greater coordination amongst local governments. A few states (e.g., Colorado, Connecticut, Rhode Island, and Utah) designate a single organization as the C-PACE program administrator. While some C-PACE enabling statutes allow local governments some choice (e.g., whether to opt-in or not, like Connecticut), more often the statute allows a local government to choose its own program administrator and what tasks it delegates to the administrator.  

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8 States with this option include Alabama, Alaska, Arkansas, California, Florida, Illinois, Maryland, Michigan, Minnesota, Missouri, New York, Pennsylvania, Texas, Virginia, and Wisconsin.
Statewide programs or state-local opt-in programs act as a single point of contact for C-PACE program management. Centralized programs enable local governments to work more quickly and efficiently with those programs and receive technical assistance for their communities. Statewide C-PACE programs standardize the documents that enable local governments to use C-PACE and provide education and support for potential C-PACE customers. This reduces the burden of local governments having to “go it alone” and can reduce overall program costs and fees, both speeding the adoption of C-PACE in local communities and ensuring closer coordination among local governments in a state. Statewide C-PACE programs are also impactful because they provide a consistent message around C-PACE in the state, ensuring that contractors, capital providers, and other key stakeholders are all providing the same information to customers, reducing customer confusion around C-PACE.

State Energy Offices can help support C-PACE programs through facilitating regular stakeholder feedback and promoting communication between local governments, the program administrator, and other stakeholders. The State Energy Office role as convener is especially useful in bringing the perspectives of local government representatives together with the C-PACE administrator(s).

**State Energy Offices can emphasize C-PACE’s immediate benefits of economic growth, job-creation, and private investment to local governments. For many C-PACE stakeholders, the energy efficiency, increased use of renewable energy, and life-safety improvement benefits are important, but secondary to economic development.**

While C-PACE is a useful tool in a state policymaker’s toolbox for financing energy efficiency and renewable energy improvements, many local governments, especially smaller, rural administrations, look at every new policy and tool through the lens of jobs and economic development for their communities. C-PACE programs that articulate C-PACE as a jobs and economic development programs may incentivize more local governments to opt-in to C-PACE. These programs first focus on the economic benefits of C-PACE, and then discuss the other benefits the financing provides (e.g., emissions reductions, health benefits, and safety benefits) to help make a more complete case for C-PACE at the local level. For example, the Connecticut Green Bank (CGB), the statewide administrator for C-PACE in Connecticut, approached the state’s local governments with a focused, concise, economic development message for C-PACE. In part because of this message, CGB enrolled almost 80% of Connecticut’s local governments into its statewide C-PACE program.9

It is also important for C-PACE programs to ensure the messaging on C-PACE is attractive to local governments because local governments can compel the state to revisit its role or enabling legislation. For example, Utah revised its enabling legislation and created a more formal role for the Governor’s Office of Energy Development after receiving feedback from local governments and other stakeholders.

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participating in the Utah C-PACE Advisory Committee. This centralized the statewide program and enabled more efficient delivery of C-PACE services to local governments.

Local governments may also respond better to the idea of enabling C-PACE in their jurisdictions if State Energy Offices and C-PACE administrators provide additional information about the benefits of energy efficiency and renewable energy to them. For example, in Pennsylvania the C-PACE program administrator found that in the process of their outreach to educate counties on C-PACE, many of those counties already utilized Energy Savings Performance Contracts (ESPCs) for their own facilities. The use of ESPC and the education on the upgrades that went into their own buildings gave those counties a high level of literacy on energy efficiency. This literacy helped the local governments better understand how C-PACE could be utilized and increased their likelihood to opt-in to the statewide C-PACE program. Thus, programs that can effectively educate local governments, or leverage existing state programs already providing resources to local governments, may find those governments more receptive to opting into statewide C-PACE programs.

Local governments may feel that C-PACE programs require more expertise or administrative effort than they can devote. Therefore, a State Energy Office (or the program administrator) can help by providing technical assistance and support as the local government establishes C-PACE. Programs that allow the local government to outsource administrative tasks may be more appealing.

Many local governments, especially those located in rural areas, have very limited resources and staffing capacity to spare for implementing C-PACE in their jurisdictions. The idea of adding another program to their existing duties may feel daunting to them. To help local governments, several statewide C-PACE programs are pioneering innovative strategies to ensure that local governments can access the benefits of C-PACE financing without experiencing as many of the challenges that come with administering C-PACE. For example, Delaware’s C-PACE program is helping counties cover the costs associated with updating their tax software. Delaware’s program pays for the services of software programmers to come to each county and update the software (i.e., include a line item for the C-PACE assessment). The program administrator is currently considering whether to recoup the costs for hiring those staffers through its administration fee. In Connecticut, many of the state’s 169 cities and towns use the same tax system to process their taxes. The Connecticut Green Bank (CGB) paid for upgrades in the system and worked with the software administrator for the tax system to get C-PACE listed on the local government property tax rolls. However, CGB now must take on a stronger role with the collection process since they are on the administering level for the system. If statewide programs choose to follow CGB’s model, they should be ready to assume some additional responsibilities including working directly with software systems and tax administrators.

11 Conversation with Anthony DePrima, Executive Director, Delaware Sustainable Energy Utility at PACENation Conference, Austin, TX, April 1, 2019.
C-PACE administrators are also taking on more of the responsibilities that are traditionally left to local
governments to complete. For example, Energize NY went through a three-stage process where they took
over more and more of the local governments’ roles in their C-PACE program.\textsuperscript{12} Energize NY’s first program
design iteration left the assessment collection to the participating municipalities. The second program
design iteration gave more authority to Energize NY to directly interact with the property owners. Finally,
the third and current version of Energize NY’s program takes over almost all of the local governments’
roles (with the exception of adopting the program) and leaves the local governments with limited roles in
C-PACE. Energize NY found that local governments became more amenable towards
C-PACE because they do not have to collect or remit funds. As a result of Energize NY’s efforts, local
governments find adopting C-PACE to be an easier decision for them.\textsuperscript{13} While this level of authority may
not be suitable or desirable for all states, the administrator taking on some traditional local government
roles helps make C-PACE more palatable for local governments.

If states do not allow the C-PACE program administrators to act as collectors for the assessments, another
option is to allow for direct billing between the customers and the capital providers. Direct billing can
make C-PACE more palatable for local governments as they do not have to adjust their tax billing systems
to account for C-PACE, and this also shifts some of the risk and responsibility on to the capital providers.
States should carefully consider this option and encourage a dialogue with local governments and
stakeholders beforehand, as this may infringe on a local government’s legal responsibilities.

Conclusion
The coordination necessary between state and local governments to efficiently design and manage a
C-PACE program means that these entities must effectively communicate with each other or work within
their state’s enabling statute to find methods to make programs easier to operate. Local governments
that wish to participate in C-PACE may possess limited resources and expertise to perform the roles
necessary to make these programs succeed. In response, State Energy Offices and statewide
C-PACE programs are experimenting with solutions to more effectively coordinate local governments and
leverage state resources and expertise to make the process of opting into C-PACE as efficient as possible.
C-PACE programs that minimize local government responsibilities find local governments more
receptive to opting into C-PACE. However, programs need to carefully consider where and when to
adopt roles from local governments without infringing on those governments’ other duties and
responsibilities and ensuring all parties uphold the public-private partnership underlying C-PACE. As
C-PACE programs continue to mature and evolve, if they continue to experiment and adopt best
practices from other programs, they can eventually strike an effective balance of state and local
responsibilities. Proper coordination between state and local governments can continue to scale
C-PACE in states and encourage its use as an engine for economic development and energy savings.

\textsuperscript{12} Conversation with Mark Thielking, Co-Executive Director, Energize NY, at PACENation Conference, Austin, TX, April 1,
2019.
\textsuperscript{13} Ibid.
Related Resources

The resources below provide additional information on the successful development and deployment of C-PACE throughout the nation to educate State Energy Officials wishing to better understand the latest in C-PACE financing.

- **Accelerating the Commercial PACE Market: Statewide Programs and State Energy Office Participation in PACE Financing:** This brief, authored by NASEO in 2016, provides an overview of the different types of program structures that C-PACE programs can utilize, explores the State Energy Office role in developing C-PACE programs, and makes the case for greater coordination between C-PACE programs, both within a state and between states.

- **Lessons in Commercial PACE Leadership: The Path from Legislation to Launch:** This 2018 report by the U.S. Department of Energy and Lawrence Berkeley National Laboratory discusses lessons learned from government officials and C-PACE administrators through each step of the C-PACE program development process. It also analyzes the different decision points needed to set up a C-PACE program and the trade-offs between each potential decision.

- **Commercial PACE Financing and the Special Assessment Process: Understanding Roles and Managing Risks for Local Governments:** This issue brief, authored by U.S. Department of Energy and Lawrence Berkeley National Laboratory in 2019, seeks to inform local governments about the risks they may incur by placing C-PACE liens on commercial properties and the staff and resource commitments they may need to take on when enabling C-PACE in their jurisdictions. The brief talks about trends in the relationship between third-party administrators and local governments as well as the latest statistics on lien delinquency and default rates for C-PACE.