

County of Loudoun, Virginia Commercial Property Assessed Clean Energy (C-PACE) Financing Program Guide

Administered by the Virginia PACE Authority

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Disclaimers

This C-PACE Program Guide (this "Guide") has been prepared for the purpose of describing the requirements, rules, procedures, and fees applicable to the County of Loudoun, Virginia Commercial Property Assessed Clean Energy (C-PACE) Financing Program (the "Program"). This Guide and all provisions hereof are subject to Chapter 825 of the Codified Ordinances of the County of Loudoun, Virginia (the "Chapter"), in all respects including, without limitation, the provisions of the Chapter governing the amendment of this Guide. In the case of any conflict between the provisions of this Guide and the provisions of the Chapter, the provisions of the Chapter shall control."

"THIS GUIDE IS ONLY A REFERENCE DOCUMENT, AND CREATES NO LEGAL RIGHTS IN FAVOR OF ANY BORROWER, CAPITAL PROVIDER, CONTRACTOR, OR ANY OTHER PERSON, NOR DOES IT IMPOSE ANY LEGAL DUTY OR OBLIGATION ON THE COUNTY OF LOUDOUN, VIRGINIA."

1.0 Executive Summary

The County of Loudoun, Virginia (“County”) and the Virginia PACE Authority (“VPA” or “Program Administrator”) are pleased to offer the County of Loudoun, Virginia Commercial Property Assessed Clean Energy (C-PACE) Financing Program (“C-PACE Program” or “Program”).

Background

Pursuant to §15.2-958.3 of the Code of Virginia (the “Act”), Virginia local governments are authorized to create a C-PACE Program to facilitate, through C-PACE Financing, the installation of energy-efficiency, renewable energy, and water efficiency improvements to eligible properties. On February 21, 2019, the Loudoun County Board of Supervisors (“Board”) voted unanimously to adopt the County’s C-PACE Program after many years of community engagement and lengthy due diligence by staff. On June 18, 2019, the County contracted with the Virginia PACE Authority to administer its C-PACE Program. The Virginia PACE Authority – VPA – is a nonprofit corporation whose mission is to provide C-PACE program administrative services for local governments in the Commonwealth of Virginia. VPA, serving as the Program Administrator, ensures that projects are eligible for C-PACE Financing under the Act, the Loudoun County Ordinance, and this Program Guide. VPA submits to the County Administrator’s office for final approval of each C-PACE transaction.

The C-PACE Program is an innovative financing program that offers an open-market financing solution for property owners desiring to install energy and water efficiency improvements, and promotes energy and water conservation and economic development in the County. The Program enables nonresidential property owners to obtain low-cost, long-term financing for energy-efficiency, renewable energy, and water efficiency improvements. C-PACE Financing helps property owners overcome financial barriers that typically discourage investment in energy and water conservation improvements for new and existing buildings. C-PACE Financed improvements can be completed with no up-front, out-of-pocket cost to property owners and can generate positive cash flow upon completion. C-PACE loans terms may extend up to the useful life of the Eligible Improvement with the longest useful life or 30 years, whichever is less. This long repayment period can result in cost savings that exceed the total cost of the C-PACE loan. The results may include a number of benefits such as: improved business cash flow due to lower energy and water costs, an increase in the value of the improved property, and achievement of sustainability goals related to reduction of energy and water consumption.

A C-PACE loan is secured through a voluntary special assessment, repayment of which can be collected by the Capital Provider or the Program Administrator. Like property taxes, C-PACE loans may be transferred to the next property owner if the property is sold. The remaining balance of the C-PACE loan is repaid by the subsequent owners, who continue to receive the benefits of the improvements from

the Project. This Program Guide provides detailed information about the eligibility requirements for participating in the Program.

The C-PACE loan process requires the prospective Borrower to develop a qualifying energy efficiency, water conservation, and/or renewable energy project with a Registered Contractor of his or her choice and arrange project financing with a qualified Capital Provider. The prospective Borrower and Capital Provider then apply at [Project Center](#) to qualify their project for a C-PACE Loan according to the criteria in this Guide. If the Project is approved, Loudoun County, the Borrower, and the Capital Provider enter into a three-way agreement known as the C-PACE Program Agreement that memorializes the obligations of the parties. The Borrower and Capital Provider will also execute a separate Financing Agreement that defines the terms and conditions of the C-PACE Loan.

The Program relies on private financial institutions to provide capital to fund C-PACE Loans. The Loudoun County C-PACE Program is open to any Capital Provider interested in participation. Interested financial institutions should contact the Program Administrator to become a qualified Capital Provider.

2.0 Program Information

2.1 Program Administrator

The Loudoun County C-PACE Program is administered by VPA. VPA is responsible for handling the day-to-day administration of the Program including marketing the program, training of service providers, review and approval of C-PACE Loan applications, and servicing the loans, as requested. VPA offers a single point of access for Borrowers, Registered Contractors, and Capital Providers to qualify projects for C-PACE Loans. To learn more about the Program, please visit the website: [Loudoun County C-PACE Program](#) or send an email to: info@virginiapace.com.

To discuss a potential project or for information on events and trainings, contact us at:

Tel: 757-603-3555 or
Email: info@virginiapace.com

For questions about the status of an application or the application process, contact us at:

Email: PACE_Admin@slipstreaminc.org

For questions about loan servicing, contact us at:

Email: servicing@virginiapace.com

3.0 Eligibility Requirements

3.1 Eligible Properties

Eligible Property Types

Loudoun County C-PACE is currently available to properties located within Loudoun County except for single family or multifamily residential properties and any property owned by a homeowners' or condominium association as defined in Virginia Code § 55-79.2. Properties that are otherwise exempt from real estate taxation are eligible to participate as this is a voluntary program.

The Loudoun County C-PACE Program does not authorize the placement of C-PACE Liens on a property owned by a local, state, or federal government.

Eligible Property Location

To be eligible, the Property to be improved must be on the property tax rolls of Loudoun County and have a property tax or assessment identification number.

Multiple Parcels

Properties with multiple tax map or parcel identification numbers are eligible if all of the lots, blocks, tracts, and parcels of land are located in Loudoun County. However, the Program Administrator reserves the right to deny applications for Properties with multiple parcel identification numbers if any one parcel is ineligible.

3.2 Eligible Projects

C-PACE Loans are available for both existing buildings and new construction projects. To be eligible, a Project must meet the following criteria:

- Project Term: C-PACE Loan terms must not exceed the expected useful life (EUL) of the proposed Eligible Improvement as described in the Energy Analysis. For projects that include multiple types of Eligible Improvements, the term of the Loan shall not exceed the EUL of the Eligible Improvement with the longest EUL or thirty (30) years, whichever is less.
- Property Value Determination: The Property value must be determined for both taxable and tax-exempt properties using either the assessed value from the Loudoun County Commissioner of Revenue's Office or an independent licensed real estate appraiser.
- Real Property: Project improvements must be permanently affixed to the real property, and the Borrower must leave the improvements affixed or attached to the Property during the term of the loan.
- Financed Amount Thresholds: The minimum Financed Amount allowed in the Loudoun County C-PACE Program is \$50,000. The maximum loan amount that may be financed for each project is \$25,000,000 or 30% of the Stabilized Value of the Property, whichever is greater. The Program recommends that the total combined Financed Amount plus all real property secured liens not exceed 95%

of the assessed or market value, whichever is greater. Capital Providers and existing mortgage/lien holders may impose additional limits based on their underwriting criteria.

- **Eligible Financed Amount:** A C-PACE Loan must be equal to or less than the amount of the eligible Project Costs.
- **Eligible Project Costs:** Eligible Project Costs can include Project Costs necessary to complete the installation, such as the installation/construction contract amount (materials and labor) and any required ancillary cost incurred in order to complete the installation of an Eligible Improvement. Examples of eligible ancillary costs are roof structural improvements necessary to allow the installation of a roof mounted solar PV array and building electrical upgrades necessary to install an efficient HVAC system or efficient lighting. Eligible Project Costs also include “soft” costs necessary to complete the installation of a Project. Capital Provider fees, title reports, credit checks, owner’s legal Trustee fees, other legal fees, recording charges, escrow disbursement fees, Energy Analysis, other third-party reports (e.g. appraisal and environmental), interest reserves, capitalized interest and any other financing costs or fees required to complete the Project. Additional soft costs not listed above will be considered on a case by case basis.
- **Project Savings:** Energy Efficiency and Water Efficiency Projects must demonstrate energy and/or water savings, respectively, over the baseline condition of the Property. Renewable energy Projects must demonstrate production of renewable energy.
- **Lender Consent/Subordination:** To receive a C-PACE Loan, each Borrower must obtain a written consent and subordination agreement by all prior lien holder(s) or loan servicer of any existing mortgages or other real property lienholder of record on the Eligible Property prior to Final Application approval by the Program Administrator. “Lender Consent” must be in the form of a Lender Consent and Subordination Agreement approved by the Program Administrator. See [Section 8.0 Lender Consent and Subordination](#).

3.3 Eligible Improvements

- A. **Energy and Water Efficiency:** Any measure that results in reduction of consumption of energy and/or water over a baseline established through the provision of an Energy Analysis.
- B. **Renewable Energy:** Any system that generates energy to supply:
- The on-site demand of the Eligible Property;
 - Export of electricity to a utility provider;
 - Sale of the electricity through the use of a Power Purchase Agreement (or similar approved agreement format);
 - Production of clean heat or power by use of a Renewable energy Resource.

These types of renewable energy systems may include:

- Solar Photovoltaic Power;
- Fiber Optic Solar;
- Solar Thermal;
- Small Wind Microturbines;
- Combined Heat and Power;
- Geothermal Heat Pump;
- Fuel Cells;
- Energy Recovery;
- Microgrids.

Note: Approval of other types of Renewable energy Project types not listed in the Program Guide is at the sole discretion of the Program Administrator and Loudoun County.

3.4 Borrowers

The C-PACE Program is a voluntary program available to Borrowers with Eligible Properties located within Loudoun County including its towns. Only Borrowers who voluntarily participate in the Program and close C-PACE Loans will have a C-PACE Lien imposed against their Property. To participate in the Program, a prospective Borrower must:

- Be the title holder of an Eligible Property as shown in the Land Records. The title holder to the subject property, or the Borrower's legally authorized representative, must sign the Final Application. In the case of a transfer of ownership, any transfer to the Borrower must be complete and fully reflected in the Land Records before an application for a new C-PACE loan may be approved;
- Submit evidence that the Borrower is not insolvent or in bankruptcy proceedings;
- Provide evidence that the title of the benefited property is not in dispute is submitted to the County prior to recording of the C-PACE lien;
- Be current in the payment of all obligations secured by the subject property, including loans secured by mortgages or deeds of trust liens on the property, property taxes, special assessments (including C-PACE Liens), special taxes, other tax liens, or water or sewer charges. The Program Administrator and Capital Provider may review public records, including the real property records, to verify compliance with this requirement;
- Have no involuntary liens on the Property, including, but not limited to, construction or mechanics liens, or judgments against the Borrower, or eminent domain proceedings. The Program Administrator and Capital Providers may review public records, including the real property records and court documents, to verify compliance with these requirements;

- Have no notices of default or delinquency on property-based debt that have been recorded and not been cured.

3.5 Capital Providers

The Loudoun County C-PACE Program is an “open market” C-PACE Program where Borrowers have the flexibility to select their preferred Capital Provider for a Project on their Eligible Property. The open market model gives Borrowers access to a range of private Capital Providers who offer competitive rates and financing terms and conditions. No exclusivity will be provided to Capital Providers, and the Borrower will retain the right to choose the type and provider of financing that works best for their business needs.

Any Capital Provider interested in offering C-PACE Loans must meet certain qualifications to participate in the Loudoun County C-PACE Program. The process for becoming a Capital Provider is as follows:

1. The interested Capital Provider must complete and submit an RFQ (Request for Qualifications) for consideration by the Program Administrator.
2. Upon approval by the Program Administrator and execution of a Capital Provider Agreement, the capital provider/lender will be considered a “Capital Provider.” Capital Providers are listed on the Loudoun County C-PACE webpage on the Program Administrator’s website.
3. Capital Providers may receive information from the Program regarding financing opportunities as well as pertinent developments related to Loudoun County C-PACE.
4. Borrowers may also pre-select their preferred lender prior to the submitting a response to the RFQ. However, prior to the closing of the applicable C-PACE Loan, the Program Administrator must approve the lender as a qualified Capital Provider as outlined above.

The information provided by Capital Providers will be used to link them to Project Developers, energy service companies, Registered Contractors, Qualified Energy Professionals, utility companies, prospective Borrowers, and others that are working to develop qualified Projects.

Note: The Virginia PACE Authority reserves the right to rescind the “Capital Provider” status of any Capital Provider according to the terms of the Capital Provider Agreement.

3.6 Contractors

All Projects financed through the Program must be installed by a Registered Contractor that has been reviewed by the Program Administrator. The purpose of Contractor registration is to ensure that the contractor is familiar with the C-PACE Program evidenced by completion of in-person or online training or has participated in other C-PACE programs. The registration does not evaluate the contractor’s

competence or the status of its licensure. If a Borrower hires a company that is not a Registered Contractor, the non-registered company must become a Registered Contractor by completing the Contractor Registration form and receiving approval from the Program Administrator.

To be eligible for a C-PACE Loan, all work associated with the installation of an Eligible Improvement that requires a license under any applicable law must be installed by a Registered Contractor who holds the appropriate license. Registered Contractors are responsible for ensuring that any and all subcontractors employed by the Registered Contractor hold the appropriate license(s). Furthermore, it is the responsibility of the Borrower to ensure that qualified, reputable contractors are chosen to perform the work on the Project according to plans, specifications, and requirements set forth in this Program Guide.

The contractor registration form, including the terms and conditions of participation, can be found here on the VPA [website](#).

3.7 Energy Professionals

All Energy Analyses must be prepared and submitted by a Qualified Energy Professional or by a team with members holding one, or more of the following certifications:

- Certified Building Energy Assessment Professional (BEAP) (offered by ASHRAE)
- Certified Energy Auditor (CEA) (offered by Association of Energy Engineers [AEE]);
- Certified Energy Manager (CEM) (offered by AEE);
- Certified High-Performance Building Design Professional (HBDP) (offered by ASHRAE);
- Certified Measurement and Verification Professional (CMVP) (offered by AEE and Efficiency Valuation Organization);
- Licensed Architect;
- Licensed Professional Engineer (P.E.);
- Investor Confidence Project (ICP) Quality Assurance Assessor;
- Investor Confidence Project (ICP) Project Developer;
- Other Professionals such as a Registered Contractor, Project Developer, Solar or Wind Developers or Capital Provider with the relevant demonstrated experience may also be approved in writing by the Program Administrator to conduct the Energy Analysis prior to approval of a Final Application.

The name, firm name, and credentials of the Qualified Energy Professional shall be included in the Energy Analysis.

4.0 Energy Analysis Requirements

Prospective Borrowers must obtain an Energy Analysis for the Project. An Energy Analysis will vary depending on the type of Project. Generally speaking, the Energy Analysis for Energy Efficiency, Water Efficiency, and Renewable Energy Projects must: 1) document the existing energy and/or water consumption of the Property or individual, relevant systems, OR utilize a statutory energy code baseline usage in the case of new construction, and 2) include calculations of expected energy and/or water monetary savings to be achieved by the Project. In order to qualify, the Energy Analysis must demonstrate quantifiable expected savings during the term of the C-PACE Loan over the baseline usage.

Note: The cost of the Energy Analysis may be included in the C-PACE Loan amount.

A Qualified Energy Professional will use generally acceptable engineering calculations or a building energy model in a U.S. Department of Energy (DOE)-approved energy modeling software to determine savings attributable to the proposed Eligible Improvements.

The Program Administrator will review the Energy Analysis to check for reasonableness of assumptions and that it complies with minimum requirements of the Program Guide.

Borrowers are encouraged to obtain all applicable government, utility provider or manufacturer rebates where available.

Note: The Program Administrator will review, and has the authority to reject, an Energy Analysis if it does not meet the requirements indicated in the following sections:

4.1 Energy and/or Water Efficiency Improvements to Existing Buildings

An Energy Analysis for a proposed Energy and/or Water Efficiency Improvement in an existing building must address the following components & information at a minimum:

- Written description of the proposed Project including each individual Energy Efficiency Improvement that will be funded with a C-PACE Loan;
- Expected annual energy savings (kWh, BTUs or therms) over energy baseline usage and/or water savings (gallons or ccf) over water consumption baseline, annual per unit energy and/or water cost (\$) savings, and/or operational, maintenance, and insurance cost (\$) savings;
- Provide clear and logical documentation of assumptions for savings calculations;

- Estimate of the expected EUL of each Eligible Improvement. Documentation supporting the EUL;
- The total project capital cost required for each Eligible Improvement or for packages of Eligible Improvements if interactive effects between Eligible Improvement make itemized costs impractical;
- A copy of proposed relevant equipment specs, data sheets, etc.;
- Where renewable energy measures are under consideration, please refer to [Section 4.2 Renewable Energy Systems](#).

Baseline for Energy or Water Efficiency Projects:

The existing conditions of a building shall be used to establish the baseline level of energy and water usage against which the performance of the Eligible Improvements will be measured. Existing conditions may be determined based on nameplate efficiency ratings of currently installed equipment. Alternatively, the Qualified Energy Professional may use modeled energy performance of the building or other professionally accepted methods of establishing energy and water efficiency performance of the existing building.

Energy Efficiency Improvement Energy Analysis Guide:

The Program recommends, but does not require, that the Energy Analysis utilizes one of the following standards/guidelines:

- ASHRAE Energy Audit standards as defined by ANSI/ASHRAE/ACCA Standard 211-2018;
- Pacific Northwest National Laboratory, A Guide to Energy Audits, PNNL-20956;
- Investor Ready Energy Efficiency (IREE) Certification;
- ASHRAE Standard 100; or
- ASHRAE Standard 90.1 Appendix G.

4.2 Renewable Energy Systems

An Energy Analysis for renewable energy improvements should address the following components at a minimum:

- Description of proposed renewable energy system including production capacity (e.g. kW);
- Description of site ambient conditions (e.g. shading analysis);
- Location for the renewable energy system;
- Energy system foundation (e.g. roof or ground mount);
- Utility consumption profile of the site, including the site's historic energy use and cost;
- Expected annual energy production (kWh), electrical demand reduction (kW), annual per unit energy production (\$) savings and operational, maintenance, and insurance cost (\$) savings;
- Assumptions affecting the cost savings:
 - Weighted cost of energy saved and generated by the Project;

- Cost savings to be realized from time-of-use and demand charge reductions, as applicable;
- Utility tariff to be applied to the site and/or system following installation
- Utility escalation rate assumptions;
- Tax benefits and other incentives, as applicable;
- EUL of the renewable energy system;
- Maintenance expenses, as applicable.
- Assessment of total Project capital cost, utility tariffs and interconnections issues, including analysis of impacts of surplus energy generation by the renewable energy system (e.g. Description of utility tariff, if any, to be applied to system production that exceeds consumption);
- Plans to maintain optimized system performance for monitoring the system functionality and performance.

Note: At its discretion, the Program Administrator may waive one or more required components of the above list.

Baseline for Renewable Energy Systems:

The energy generation baseline for all renewable energy systems is assumed to be zero energy generation; however, if a renewable energy system is a replacement of an existing renewable energy system, the Qualified Energy Professional must establish the baseline using performance and/or nameplate ratings of the existing system.

4.3 New Construction and Substantial Renovation/Adaptive Reuse Projects

The C-PACE Program is available for the construction of new buildings as well as the substantial renovation OR adaptive reuse of vacant buildings. New construction projects, unlike existing-building retrofits, do not benefit from a history of pre-improvement energy consumption data from which baseline energy consumption can be formulated. Without the benefit of this baseline building performance data, additional Energy Analysis requirements are necessary. Further, the demonstration of reduced energy or water consumption will determine the amount of C-PACE Financing eligible for a new construction or substantial renovation Project.

Baseline: New Construction

The baseline for new construction projects is the minimum level of equipment efficiency required by the current applicable building energy code. For any new construction project, the Borrower must demonstrate through the appropriate Energy Analysis that the Project exceeds the Building Code of Loudoun County or equivalent ASHRAE 90.1 standard established in the Uniform Statewide Building Code (USBC) of the Commonwealth of Virginia. The Commonwealth of Virginia publishes the applicable building code here: <https://dhcd.virginia.gov/virginia-uniform-statewide-building-code-usbc>

The Qualified Energy Professional should also verify with the Loudoun County Department of Building and Development to ensure local building code compliance. For the purposes of the energy/water savings calculations prepared in the Energy Analysis, the Borrower must demonstrate energy and water performance that is greater than the baseline set in the Virginia USBC.

The Energy Analysis should summarize the building's total anticipated performance that is better than the building code (baseline) with a summary percentage of performance above the code baseline. **To be eligible for C-PACE financing on a new construction project, the Project must achieve energy and/or water savings that exceed the code baseline.**

Baseline: Substantial Renovation/Adaptive Reuse

If the subject Project concerns the substantial renovation or adaptive reuse of a vacant or underutilized building at Project inception as determined by the Program Administrator, the baseline for the purposes of establishing energy savings of proposed energy and/or water efficiency improvements can be set at the level of existing equipment and building conditions.

With the exception of the provision of historic utility bills, the Energy Analysis for this project type should include all other component requirements for existing buildings, as outlined above. Energy savings for adaptive reuse and vacant buildings may be established using the appropriate energy analysis methodology determined by the Qualified Energy Professional as set forth above, provided that the existing equipment will serve the same function as the end result of the project.

Methodologies for Determining Savings:

The Energy Analysis for a new construction Project may demonstrate expected energy or water savings over this baseline in one of two methods:

- 1) Method 1: Itemization of individual Eligible Improvements. Itemization of individual Eligible Improvements in the Project whose efficiency specifications exceed the baseline requirements as outlined in the appropriate building code. The Energy Analysis must describe the characteristics of each Eligible Improvement according to aforementioned Energy Analysis guidelines and provide supporting documentation showing that each Eligible Improvement exceeds minimum baseline requirements. Examples of supporting documentation that may be accepted include but are not limited to contract certificates, permits, equipment cutsheets, COMcheck certificates, building plans. **100% of the cost of each Eligible Improvement** that exceeds minimum code requirements may be included in the C-PACE Loan amount.
- 2) Method 2: Demonstration of total savings on a whole building level. Estimated whole building energy and/or water savings above minimum baseline should be calculated using a DOE approved building energy modeling software or detailed engineering calculations, following a methodology consistent with

ASHRAE 90.1 Appendix G guidelines. Building level savings calculations must state the building's total anticipated performance and specify the summary percentage of energy and/or water performance over code minimum. For this methodology, the aggregate of both energy and water saving improvements that achieve the required whole building savings thresholds below, plus additional code-compliant energy and water related measures may be considered Eligible Improvements. One hundred percent (100%) of the energy and water related measures included in the whole building model may be financed up to the following limits: A whole building performance that exceeds code baseline by less than 5% may fund up to 20% of total hard and soft costs of whole building construction. A whole building performance that exceeds code baseline by 5% or more can fund up to 25% of total hard and soft costs of whole building construction.

Under both methods, the maximum Financed Amount is the total cost of the proposed energy- and water-related measures plus eligible soft costs.

New construction projects that only involve renewable energy installed on new buildings and used by the building are not required to complete the Energy Analysis requirements for new construction and may instead demonstrate overall savings on a whole building level as described in this second methodology.

5.0 Program Fees

Note: The Loudoun County C-PACE Program and the Program Administrator reserve the right to modify the following fee structure due to changes to program requirements or market factors. Such modifications will be published in updates to this Program Guide.

5.1 Application Fee

The Application Fee also known as a Closing Fee is a one-time processing fee for the transaction that is equal to one and one quarter percent (1.25%) of the Project Cost amount stated in the C-PACE Loan Documents for the Project. This fee may be capitalized into the Financed Amount for the subject Project. There is a minimum Application Fee of \$3,300 and maximum Application Fee of \$50,000. There is no fee to submit the Pre-Application.

Application Deposit:

At the time the Final Application is submitted for review, a non-refundable Application fee of \$100 is due to the Program Administrator. This fee is due before the Program Administrator will begin review of the Final Application. At closing of the C-PACE Loan, a credit for the Application Fee is applied towards the Program Fees.

The \$100 upfront, non-refundable Application Deposit can be sent by mail to:

Virginia PACE Authority
Attn: Deb Rosiello
138 Jordans Journey
Williamsburg, Virginia 23185

The upfront Application Deposit can also be submitted online through the VPA website.

See [6.0 C-PACE Loan Application Process](#).

5.2 Program Servicing Fee

The Borrower will receive a standalone bill on County letterhead for payment of the C-PACE Loan Payment on a semi-annual basis that coincides with the billing of property taxes by the County assessor. The Borrower will make payment to the County and the County will remit payment to the Capital Provider within 7 business days.

Servicing of the C-PACE Loan requires a fee of one- and one-half percent (1.5%) of the annual C-PACE Loan Payment, with a minimum of \$330 and maximum of \$1,800. The fee is charged on an annual basis.

5.3 Program Expenses

The foregoing fees are those generally necessary to cover the regular costs of the administration of the Program. These costs and expenses do not include any specialized professional services that may be necessary should the circumstances of any particular Project require them. For example (and without limitation), should any participant in a Project submit substantive comments to the Loudoun County C-PACE Program documentation (including but not limited to the C-PACE Program Agreement, request a legal opinion from Program counsel or require other time and resource intensive review of a transaction, the Borrower for such Project will be responsible for covering such expenses at cost. These expenses may be paid out of the proceeds of the C-PACE Loan. Below is a sample project to illustrate typical fees:

Sample Project

Costs and Fees		Annual Payments	
\$ 500,000.00	Direct Costs	\$23,727.96	Semi-Annual Lien Payment
\$ 100.00	Application fee	\$47,455.92	Annual Lien Payment
\$ 4,000.00	Energy Audit	\$711.84	Annual Servicing Fee
\$ 5,000.00	Appraisal, other 3rd party	\$48,167.76	Total Annual Payment
\$ 100.00	Title report, credit check		
\$ 2,000.00	Owner legal		
\$ 511,200.00	Total Project Costs		
\$ 50.00	Recording fees		
\$ 6,290.00	Administrator fee	1.25%	
\$ 5,489.89	Capital provider fee	1.00%	
\$ 523,029.89	Total Amount Before Cap. Int.		
\$ 25,436.48	Capitalized interest		
\$ 548,466.37	Total PACE financing Amount		

Assumptions	
Interest rate	6.0%
Amortization (yrs)	20

The Program Administrator will require evidence that such expenses will be paid before the closing of a C-PACE Loan may proceed.

5.4 Capital Provider Fee

Capital Providers may charge an origination fee to cover their cost of arranging the C-PACE Loan. Any such fee should be arranged and agreed to in an agreement

between the Capital Provider and the Borrower in the Financing Agreement. If applicable, Capital Providers may require a debt service reserve may be required.

6.0 C-PACE Loan Application Process

The Application and Program Administration process is broken into two distinct parts: Part 1 includes the application management, approval, and completion of the Project. Part 2 involves the repayment of the C-PACE Loan, described in [Section 7.0 C-PACE Loan Administration](#).

Application Process Overview

To proceed with funding a Project, a prospective Borrower must complete the application process, which has two phases: Pre-Application and Final Application. Approval of the Final Application by the Program Administrator is a requirement prior to closing the C-PACE Loan.

Project Center

The Project Center portal contains all documents, applications, and instructions required to be approved for the C-PACE loan through the Program. A prospective Borrower may access the Project Center at [Project Center](#). A prospective Borrower is encouraged to review the process below and submit a Pre-Application to determine if the property is eligible for financing.



6.1 Determine Eligibility and Complete Pre-Application

The Pre-Application gives a prospective Borrower the opportunity to establish Project eligibility for participation in the Program before they invest in project development. The information collected in this step of the process will be used by the Program Administrator to verify that the property is eligible, and that the proposed Project falls within the parameters established in this Program Guide.

To begin the process, a prospective Borrower completes the online Pre-Application form available in the Project Center at [Project Center](#). A prospective Borrower to the Program will be prompted to establish a username and password which will be used to submit and edit a Project.

Once a Pre-Application is submitted, the Program Administrator will conduct a preliminary review to determine if the property and proposed Project is eligible for enrollment in the Program. This review will typically be completed within 1-2 business day of receipt of a completed Pre-Application.

6.2 Select Capital Provider and Develop Project

If the Pre-Application is approved, a prospective Borrower moves forward with the Project development phase:

Energy Analysis: A Borrower must obtain an Energy Analysis, as described in Section 4.0 Energy Analysis Requirements. Following the Energy Analysis, a Borrower will develop the final scope, Project Costs and Schedule in conjunction with a Registered Contractor and/or Project Developer.

Lender Consent and Subordination: If the eligible Property has existing liens, a prospective Borrower must obtain the written consent of all existing lien holders as a condition of closing the C-PACE Loan. Given that this process can take some time, the Program Administrator recommends that the Borrower contact these lien holders early in the scoping process to gauge the likelihood that consent will be granted (See [Section 8.0 Lender Consent and Subordination](#)).

During this phase, a prospective Borrower should also contact qualified Capital Providers to secure acceptable C-PACE Loan terms and conditions.

The Program Administrator manages a list of qualified Capital Providers and this information is available to all prospective Borrowers on the Program website www.virginiapace.com. Prospective Borrowers are free to work with any Capital Provider who will provide financing in accordance with the Program's eligibility requirements. (See [3.5 Capital Providers](#) as previously described). The Capital Provider will conduct its own review of the Project according to its underwriting requirements.

6.3 Submit Final Application with Supporting Documentation

When the pre-development work for the Project is substantially complete, a prospective Borrower will complete the Final Application. The Final Application can be started upon approval of the Pre-Application and is accessible through the Project Center/Existing Application. The Program Administrator will also send the prospective Borrower an email with a link to the Final Application within the Project Center.

The Final Application within the Project Center contains a section available to the prospective Borrower to upload all supporting documents. The Program Administrator will only accept documents uploaded through the Final Application form in the Project Center. At a minimum, the following supporting documentation must be provided:

- **Executed Final Application** completed by the Borrower, with all fields filled including all owner certifications and signatures;
- **Signed Installation Contract(s)** from Registered Contractor(s) for the Project that includes the cost of the work, the scope of work, specifications for the equipment, and the schedule for the installation of the Eligible Improvement(s) identified in the Energy Analysis for the Project;
- **Energy Analysis** conducted according to the requirements of this Program Guide;
- **Lender Consent and Subordination** evidenced by a written Subordination Agreement executed by all prior lien holders on the Eligible Property for the proposed Project. (See [Section 8.0 Lender Consent and Subordination](#) for further detail). Requests for Lender Consent and Subordination must be delivered to holders or servicers of property-based debts on the Eligible Property at least 30 days prior to loan closing;
- **Title Report** disclosing all current mortgage and lien holders on the property and showing that there are no involuntary liens on the property (the Title Report must be issued not more than 60 days prior to Effective Date of the C-PACE Program Agreement. The Borrower and Capital Provider are responsible for obtaining the report;
- **Substantially Final C-PACE Loan Documents**. There should be no material changes to the C-PACE Loan Documents after Program approval and prior to closing. Submitted documents must include finalized dates, amortization schedules, and must be signed by the Capital Provider;
- **Appraisal or Assessment**. The assessed value from the appropriate assessor's office or an independent licensed real estate appraiser. Appraisals must be completed within 18 months of the effective date of the Final Application. If the appraisal date exceeds the 18-month window, the Program Administrator may accept the appraisal on a case by case basis;
- **Mortgage or other Loan Balance(s)**. Copies of the most recent mortgage loan statement(s) for all such loans outstanding on the property in order to determine the current loan-to-value ratio and payment of most recent mortgage balance.
- **Property Owner Certification** – A certificate from a Borrower, certifying that:
 - A) the Borrower is:
 1. current on all loan payments secured by a mortgage or deed of trust lien on the Property;
 2. current on real and personal property tax payments;

3. current on all federal, state, and local taxes and there is no federal income tax lien, judgment lien, or other involuntary lien against the Property; and
 4. not insolvent or in bankruptcy or foreclosure proceedings
- B) and that the title of the benefitted property is not in dispute as evidenced by a title report or title insurance commitment from a title insurance company acceptable to the Capital Provider and County.
- **Offer to Fund.** Borrower must provide documentation that indicates that a Capital Provider has offered to provide C-PACE Financing for the C-PACE Project. Such documentation may be evidenced by a signed term sheet, commitment letter, or other documentation reasonably satisfactory to the Program Administrator.

Once a complete Final Application is received, the Program Administrator will review it for completeness and accuracy of the information and documents enclosed to ensure they comply with this Program Guide. The Program Administrator will provide the prospective Borrower with written Notice of Approval or request for more information within 10 business days of a submission of a completed Final Application. If the Program Administrator finds the Final Application to be incomplete, the Program Administrator will provide the prospective Borrower the opportunity to complete any missing information. Upon resubmission of the Final Application, the Program Administrator will complete its review within 10 business days and respond in writing with the results of its review of the Final Application.

6.4 Close Financing & Execute C-PACE Program Agreement

Upon receipt of the Notice of Approval, a Borrower may proceed with closing of the C-PACE Loan. The owner must furnish the Program Administrator with a copy of the executed Financing Agreement.

In addition to the Financing Agreement between the Borrower and the Capital Provider, the Borrower, Capital Provider, and Loudoun County are required to execute the C-PACE Program Agreement in conjunction with the C-PACE Loan closing. The C-PACE Program Agreement is a contract between Loudoun County, the Capital Provider, and the Borrower that defines the obligations and responsibilities of the parties and wherein the Borrower consents to a voluntary assessment lien being placed on the subject property to secure the C-PACE Loan. A copy of the C-PACE Program Agreement is included in this Program Guide in [Appendix C](#). Following the execution of the C-PACE Program Agreement and payment of all applicable fees, the Program Administrator will record in the Land Records of Loudoun County the C-PACE Lien Certificate executed by the parties that includes the Property Description and Schedule of Loan Payments from the C-PACE Program Agreement.

6.5 Project Implementation

Following closing of the C-PACE Loan, the Borrower and its agents may initiate construction of the Project.

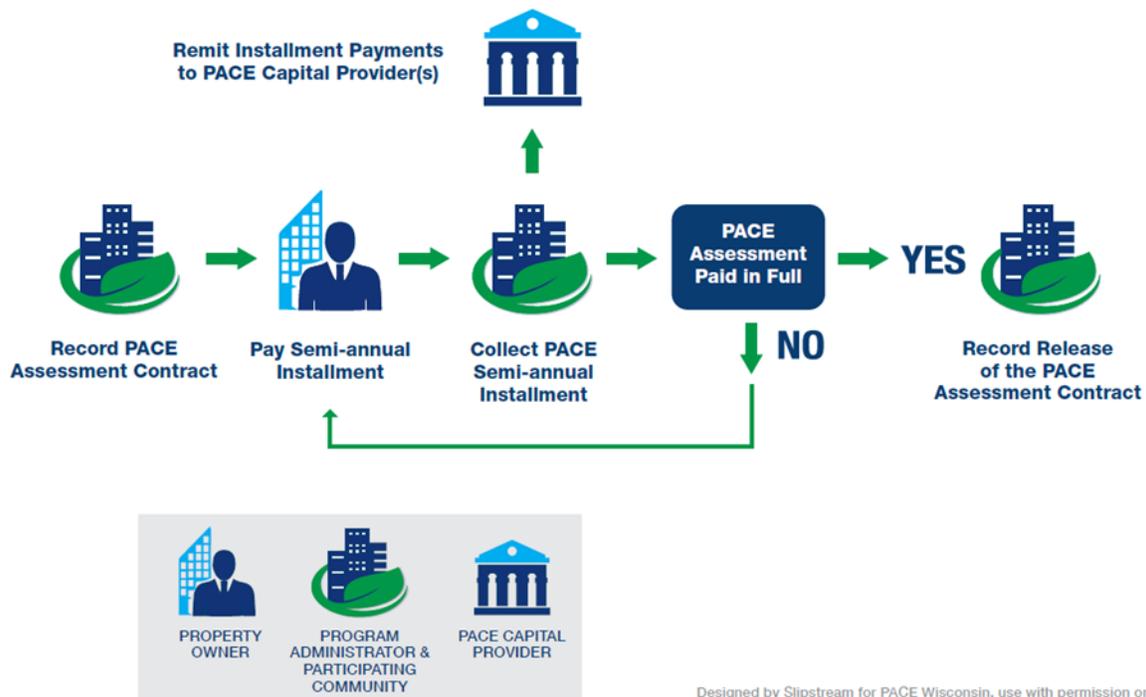
The C-PACE Loan will be provided by the Capital Provider according to terms agreed to between those parties in the Financing Agreement.

6.6 Project Completion

When the project is complete, the Borrower will forward evidence of completion to the Loudoun County C-PACE Program for its records. However, it is the responsibility of the Borrower and/or the Capital Provider to ensure that the Project has been successfully completed including any necessary approvals issued by Loudoun County building officials. It is not the responsibility of the Program to verify completion or compliance to local building codes or standards.

7.0 C-PACE Loan Administration

Below is an illustration of the C-PACE Loan administrative process:



7.1 C-PACE Lien

The C-PACE lien has the same priority status as County taxes. The C-PACE Loan Payments that are due, and any interest or penalties accrued thereon, constitute a

first and prior lien against the Property on which the C-PACE Lien Certificate is imposed from the date the C-PACE Lien Certificate is recorded until the C-PACE Lien and all interest and penalties thereon is satisfied.

The C-PACE Lien runs with the land and that portion of the C-PACE Lien that has not yet become due is not eliminated by foreclosure of a property tax lien. The C-PACE Lien cannot be accelerated or extinguished until fully repaid. The C-PACE Lien may be enforced by the Loudoun County in the same manner as failure to pay real property taxes within Loudoun County. In some cases, Loudoun County may assign the C-PACE Lien to the Capital Provider by executing a C-PACE Lien Assignment and recording the Assignment in the Land Records. Upon such assignment, the Capital Provider may enforce the C-PACE Lien according to the terms of the Financing Agreement, the C-PACE Lien Certificate, and the C-PACE Program Agreement (“Loan Documents”).

7.2 Repayment of the C-PACE Loan

Repayment of the C-PACE Loan will commence according to the terms of the C-PACE Loan Documents. The first repayment date for the C-PACE Loan Payment will be subject to the schedule in the C-PACE Loan Documents.

The Borrower will receive a standalone bill on County letterhead for payment of the C-PACE Loan Payment, which will be paid to the County. Each C-PACE Loan Payment must be paid in full on the relevant due date under the C-PACE Program Agreement or the C-PACE Loan Payment will be considered delinquent.

All other procedures related to the C-PACE Loan Payment, including remedies for delinquency and defaults, will be set forth in the Loan Documents related to the applicable C-PACE Loan. Nothing in this Program Guide may supersede or alter the terms and conditions contained in the Loan Documents.

7.3 Delinquent C-PACE Loan Payments and Enforcement Remedy

In the event of a default for failing to pay the Loan Payments, the C-PACE Lien will be enforced by Loudoun County in the same manner that a property tax lien against real property is enforced, including through tax sale and/or foreclosure, and pursuant to the terms of the of the C-PACE Program Agreement. In the event a Delinquent C-PACE Loan Payment is enforced, the outstanding balance of the C-PACE Lien will not accelerate.

Other events of default may occur if the Borrower fails to adhere to other obligations in the Loan Documents.

A C-PACE Loan will be transferred to the new property owner upon sale or transfer of the Eligible Property during the term of a C-PACE Loan.

7.4 Once a C-PACE Loan Has Been Fully Amortized and Paid in Full
Once the C-PACE Lien is repaid in full according to the terms of the Loan Documents, a release of the C-PACE Lien will be recorded in the public records.

8.0 Lender Consent and Subordination

Per the Act, a Borrower must obtain the written consent and subordination of all existing holder(s) or loan servicer(s) of any existing deeds of trust or other real property lien holder of record encumbering the Eligible Property prior to Final Application approval by the Program Administrator. Lender Consent and Subordination must be in the form of a Lender Consent and Subordination Agreement. The purpose of the Lender Consent and Subordination Agreement is to subordinate the lender's or lienholder's interest in the subject property to the due and unpaid loan payments for the C-PACE Loan.

The Program Administrator recommends that the Borrower consult with its chosen Capital Provider before they approach a prior lien holder(s). Many traditional lenders are not familiar with C-PACE and may not be clear on how it works. In seeking consent, the Borrower may find it helpful to inform prior lien holder(s) that in the event of C-PACE Loan default and tax foreclosure, the C-PACE Loan will not accelerate, and only the delinquent amount of the C-PACE Loan will enjoy super-priority lien status. Further, a Borrower should emphasize that C-PACE-financed projects increase the value of the prior lien holder's collateral. Eligible Borrowers are encouraged to have the Capital Provider attend the meeting with the lender(s).

A copy of a Lender Consent and Subordination Agreement will be available upon request from the Program Administrator.

9.0 Change Orders

All change orders that result in an alteration of the anticipated energy and water savings attributed to the Project must be pre-approved by Program Administrator to ensure that the changes to the Project remain consistent with the requirements as set forth in this Program Guide. The Borrower shall provide documentation of the change as follows:

- Change in Project scope, description of changes;
- Revised Project budget to account for changes in Project Costs;
- Energy and operations savings estimates, as evidenced in a revised Energy Analysis;
- Approval of the change by the Capital Provider.

A Borrower who requires a change order is required to complete a summary of the above changes and submit the same to Program Administrator for approval.

Appendix A: Glossary of Terms

This section establishes definitions of terms used in these Program Guide.

Act – [§15.2-958.3 of the Code of Virginia](#).

Application Fee – – A one-time administration fee that is calculated as a percentage of the Project Cost. See [Section 5.0 Program Fees](#) for further details.

Application Deposit – An amount collected when the **Final Application** is submitted to the **Program Administrator** for review. At closing of the **C-PACE Loan**, a credit for the **Application Deposit** is applied towards the **Application Fee**.

Borrower(s) – 1) The owner(s) of **Eligible Property** who obtain(s) a **C-PACE Loan** from a **Capital Provider** in accordance with the **Program Guide** or 2) a successor in title to the Borrower.

Borrower Certification – A certificate from a Borrower, certifying that

A) the Borrower is:

1. current on all loan payments secured by a mortgage or deed of trust lien on the Property;
2. current on real and personal property tax payments;
3. current on all federal, state, and local taxes and there is no federal income tax lien, judgment lien, or other involuntary lien against the Property; and
4. not insolvent or in bankruptcy or foreclosure proceedings

B) the title of the benefitted property is not in dispute as evidenced by a title report or title insurance commitment from a title insurance company acceptable to the Capital Provider and County.

Capital Provider – 1) A private lending institution that has been approved by the **Program Administrator** in accordance with the **Program Guide** to originate a **C-PACE Loan** and its successors and assigns or 2) the current holder of a **C-PACE Loan**.

Closing Fee – See **Application Fee**.

C-PACE Financing – The acronym for Commercial Property Assessed Clean Energy Financing. Per the **Loudoun County Ordinance** in Virginia, C-PACE Financing is available for commercial buildings. Residential properties (including multi-family complexes) and condominium properties (including common areas) are not eligible. C-PACE Financing is referred to as a **C-PACE Loan** in this Guide.

C-PACE Lien - The voluntary special assessment lien levied against the Property as security for the **C-PACE Loan**.

C-PACE Lien Certificate - The voluntary special assessment lien document duly recorded among the **Land Records** against an **Eligible Property** to secure the **C-PACE Loan**.

C-PACE Loan –means a loan from a **Capital Provider** to a **Borrower** to finance a Project in accordance with the **Program Guide**.

C-PACE Loan Documents – The **C-PACE Program Agreement, Financing Agreement**, the **C-PACE Lien Certificate**, and any other document, agreement, or instrument executed in connection with the **C-PACE Loan**

C-PACE Loan Payment – means the periodic installment payments of the **C-PACE Loan** by a **Borrower**, due and payable to the County or **Capital Provider** as permitted by the **Act** in such amounts and at such times as described in the **C-PACE Loan Documents**.

C-PACE Program - or “**Program**” means the program established by the County in Chapter 825 of the Loudoun County Code of Ordinances and in accordance with the **Act** that facilitates the financing of **Eligible Improvements** and provides for a **C-PACE Lien** to be levied and recorded against the Property to secure the **C-PACE Loan**.

C-PACE Program Agreement - means the Agreement between the **Borrower, Loudoun County, and Capital Provider**, and their respective successors and assigns, which includes the terms and conditions for participation in the **C-PACE Program**; the **Borrower’s** acknowledgment and consent for Loudoun County to impose a voluntary special assessment and record a **C-PACE Lien Certificate** against the **Borrower’s Eligible Property**; and a summary of the terms of the **C-PACE Loan**.

Delinquent Payment - Any **C-PACE Loan Payment** that was not paid by the **Borrower** in accordance with the **C-PACE Loan Documents**.

Eligible Improvement– This is the initial acquisition and installation of clean energy, energy efficiency, or water efficiency improvements for both existing properties and new construction, as further prescribed in Chapter 825 of the Loudoun County Code and this Program Guide.

Eligible Property – means real property located in Loudoun County other than residential property or a condominium as defined in Virginia Code § 55-79.2.

Energy Analysis (es) – An analysis of the **Eligible Improvements** proposed for the **Project** conducted by the **Registered Contractor** or **Qualified Energy Professional** in compliance with [Section 4.0 C-PACE Energy Analysis Requirements](#).

EUL – Expected Useful Life

Final Application – The application to participate in the Loudoun County C-PACE Program and receive the **C-PACE Loan** that is approved by the **Program Administrator** and that confirms the **Borrower** has met all the requirements set forth in this **Program Guide**. Approval of the Final Application by the **Program Administrator** is conditional precedent to closing the **C-PACE Loan**.

Financed Amount – The dollar amount of the special assessment levied against the **Eligible Property** as set forth in the **C-PACE Lien Certificate**.

Financing Agreement – The document executed by the **Borrower** and the **Capital Provider** that defines the terms of the **C-PACE Loan**, which comply with the requirements of the Loudoun County **C-PACE Program**, and which are mutually agreed upon by the **Borrower** and the **Capital Provider**.

Land Records - The land records of the Clerk of the Circuit Court in Loudoun County, Virginia.

Lender Consent and Subordination (or “Subordination Agreement”) means a written instrument executed by the holder of each existing lien, mortgage, or deed of trust on **Eligible Property** that is the subject to a **C-PACE Loan**, which allows the **C-PACE Lien** to have senior priority over the existing lien, mortgage, or deed of trust (See [Section 8.0 Lender Consent and Subordination](#) for further details).

Loudoun County C-PACE Program (“Program”) – The program established by the County through Chapter 825 of the Loudoun County Code of Ordinances in ordinance with the **Act**, that facilitates the financing of **Eligible Improvements** and provides for a **C-PACE Lien** to be levied and recorded against the Property to secure the **C-PACE Loan**.

Notice of Approval – This is a notice provided to the **Borrower** by the **Program Administrator** that signifies that the **Final Application** is complete and has been approved by the **Program Administrator**. Following receipt of this notice, the **Borrower** may close his or her **C-PACE Loan**.

Pre-Application – The initial application completed by a prospective **Borrower** by which the **Program Administrator** can determine whether the proposed **Project** is located on an **Eligible Property** and that the prospective **Borrower** is aware of the **Program** requirements. Approval of a **Pre-Application** is required prior to submittal of the **Final Application**. (See [Section 6.1 Determine Eligibility and Complete Pre-Application](#).)

Program Administrator – The Virginia PACE Authority, Inc. (“VPA”), a tax-exempt 501(c)3 nonprofit entity that will administer a C-PACE program on behalf of or at the

discretion of the County. VPA is responsible for marketing the program, approving **C-PACE Loans**, and servicing repayment, as requested.

Program Fee(s) – The fee(s) authorized by the Act and charged to participating Borrowers to cover the costs to design and administer the program, including compensation of the Program Administrator and recovery of expenses incurred by the County.

Program Guide – A document that explains the **Loudoun County C-PACE Program's** requirements, recommendations, and processes under which **Borrowers** seeking to complete a **Project** may be approved to utilize **C-PACE Financing**.

Program Manager – The County Administrator or such person designated in writing by the County Administrator to supervise the **Program** and act as liaison with the **Program Administrator**.

Project – The construction of **Eligible Improvements** on Eligible Property that meets the requirements set forth in this **Program Guide**.

Project Center – A web portal containing all documents, applications, and instructions required to be approved for **C-PACE Loans** offered through VPA.

Project Costs - All **Eligible Improvement** costs necessary to complete the installation of a **Project**, such as the installation/construction contract amount (materials and labor) and any required ancillary cost incurred in order to complete the installation of an **Eligible Improvement**. Ancillary costs also include so called "soft" costs (third party reports, legal opinions, project development fees, capitalized interest, program fees, and any other financing fees, etc.) that are required to close the **C-PACE Loan**.

Project Developer – An individual or company that assists the **Borrower** in developing the scope of the **Project** and/or assisting in arranging **C-PACE Loans**.

Qualified Energy Professional – A professional meeting certain criteria to perform the **Energy Analysis**.

Registered Contractor – A business or organization that has registered with the **Program Administrator** to provide services to **Borrowers**.

Servicing Fee – This fee is collected annually with the **C-PACE Loan Payment** over the term of the **C-PACE Loan** if the **Program Administrator** provides this service for an additional fee. (See [Section 5.0 Program Fees](#) for further details.)

Stabilized Occupancy - The occupancy level that an income producing property is expected to achieve after the property is exposed to the market for lease over a

reasonable period of time and at comparable terms and conditions to other similar properties.

Stabilized Value - The market value of the Property after it reaches stabilized occupancy as evidenced by an appraisal of the Property.

VPA – The Virginia PACE Authority

Appendix B: Common C-PACE Eligible Improvements

Eligible Energy Measures

The following list of predominant, long-standing, proven energy efficiency technologies, water conservation technologies, and renewable energy generation systems is intended as a reference list and can change at any time. If not included on this list, Program Administrator will review proposed Eligible Improvements and accept them on a case-by-case basis:

- High efficiency lighting;
- Heating ventilation air conditioning (HVAC) upgrades;
- New automated building and HVAC controls;
- Variable speed drives (VSDs) on motors fans and pumps;
- High efficiency chillers;
- High efficiency boilers and furnaces;
- High efficiency hot water heating systems;
- Combustion and burner upgrades;
- Fuel switching resulting in an overall reduction in the number of BTUs required to achieve a given end use;
- Water conservation measures;
- Heat recovery and steam traps;
- Building enclosure/envelope improvements;
- Building automation (energy management) systems;
- Renewable energy systems;
- Electric vehicle charging stations;
- Voltage optimization devices that reduce energy consumption by an end user.

The following end-use savings technologies are generally more applicable to industrial facilities:

- New automated process controls;
- Heat recovery from process air and water;
- Cogeneration used for peak shaving;
- Process equipment upgrades;
- Process changes.

Shown below are key aspects of some of the most commonly applied technologies listed above, with their typical simple payback range. These payback ranges are only provided for informational purposes and should not be construed as a guarantee of performance or requirement for C-PACE funding eligibility.

Lighting (typical 2- to 3-year simple payback):

- Daylight controls and natural daylighting designed to reduce energy and improve visual comfort;

- Upgrades for existing fluorescent fixtures including electronic ballasts, T8 lamps, and reflectors including the installment of LED bulbs and fixtures;
- Meeting rooms and other intermittently occupied spaces can garner significant energy savings with the use of timers and occupancy sensors;
- Smaller impact opportunities including security lighting, stairwell lighting, exterior night-time security lighting and exit signs.

Refrigeration (typical 3- to 5-year simple payback):

- Install improvements to refrigerated cases and walk-in coolers to improve efficiency and decrease waste;
 - Additional insulation, anti-sweat heater controls, auto-closers for cooler/freezer doors, case-lighting controls, improved defrost controls, suction line insulation, etc.
- Thermal Storage Systems (for load shifting) ;
- Compressors (VFD and controls, heat recovery, mechanical sub-cooling, evaporative condensers, etc.).

Motors (typical 3- to 5-year simple payback):

- High efficiency electric motor replacements usually pay back when a motor is running for long periods at high load, or at the end of motor life;
- The cost premium over standard motors normally can be recovered in less than 2 years;
- Motor sizing to the actual load profile to improve efficiency and control electrical power factor;

Variable Speed Drives (typical 3- to 5-year simple payback):

- Applied to motors, pumps and fans;
- Matches motor use to variable operating load;
- Can save up to 40 percent in power consumption;
- Can be packaged with controls;
- Extends motor life.

HVAC (typical 2- to 8-year simple payback):

- New packaged units can increase efficiency and indoor comfort;
- Proper sizing of HVAC equipment is a major opportunity, since full-load operation is more efficient than part load operation - consider fan capacity reduction or staging of 2 smaller units rather than partial loading of one large unit;
- Install VSDs on HVAC motors;
- Balance air and water supply systems to remove trouble spots demanding inefficient system operation:
 - Improve maintenance;
 - Eliminate simultaneous heating and cooling;
 - Install economizers and direct digital controls.
- Variable air volume conversions versus constant air flow;
- Ventilation reduction;

- Unoccupied shutdown or temperature setback/setup (controls).

Chillers (typical 5- to 10-year simple payback):

- New chiller models can be up to 30-40 percent more efficient than existing equipment;
- Upgrade lead chiller(s) (base load) to high efficiency;
- Manage chiller and condenser settings to minimize compressor energy;
- Optimize pumping energy for distribution of chilled water;
- Optimize HVAC operation to:
 - Improve temperature/humidity control;
 - Eliminate unnecessary cooling loads.
- CFC reclamation program/inventory - chiller replacement may achieve both CFC management and energy efficiency objectives.

Boilers (typical 3- to 5-year simple payback):

- Replace steam with hot water boilers for hot water heating loads;
- Improve maintenance;
- Optimize operation/staging in multiple boiler plants;
- Optimize boiler controls;
- Tune or replace burners;
- Add small "pony" boilers for low loads:
 - Reduced fuel consumption/energy costs;
 - Reduced emissions;
 - Reduced maintenance costs;
 - Higher reliability.

Heat Recovery (typical 2- to 4-year simple payback):

- Heat recovery devices to capture waste heat from water, process heat and exhaust air to re-use it for preheating: of Building intake air:
 - Boiler combustion air;
 - Boiler feedwater;
 - Inlet water for domestic hot water.

New Automated Building and HVAC Controls (typical 3- to 5-year simple payback):

- Old controls may still be pneumatic systems based on compressed air - new electronic controls are more precise and reliable, with greater capabilities;
- Can automate lighting, chiller, boiler and HVAC operation:
 - Load shedding;
 - Optimal start/stop/warm up;
 - Ventilation control.
- Whole-building energy management systems may come with other advanced control technologies:
 - Security, fire and life safety;
 - Alarm monitoring and report generation;
 - Preventive maintenance scheduling;

- Remote monitoring/metering capabilities may be attractive.

Building Shell and Fenestration (typical 3- to 10-year simple payback):

- Roof insulation, combined with reflective roof coatings in warm climates, reduces energy consumption;
- Review building pressurization for proper ventilation:
 - Balance exhaust and intake air quantities;
 - Add weather-stripping on doors and windows;
 - Seal cracks and unnecessary openings.
- Window films to reduce solar heat gain and/or heat loss;
- Replace windows with more energy efficient glazing.

Water Conservation Improvements (typical 3- to 5-year simple payback):

- Domestic water use can be impacted greatly by the replacement of toilets, urinals, and other bathroom fixtures;
- Commercial kitchens can save water through the replacement of pre-rinse valves, dishwashers, and icemakers;
- Laundry equipment in commercial properties and Laundromats can benefit greatly with upgraded equipment;
- HVAC systems can reduce water consumption through the installation of cooling towers, condensers, and steam boilers;
- Industrial water consumption from car washes, film and x-ray processing, and high-tech manufacturing can be reduced through the installation of equipment involved in each specific process/facility.

Renewable Clean Energy Improvements (typical 3- to 15-year simple payback):

- Solar Photovoltaic Power;
- Solar Thermal;
- Wind Power;
- Geothermal Energy;
- Fuel Cell;
- Energy Recovery;
- Combined Heat and Power.

Electric Vehicle Charging Stations:

- Transitioning from gasoline and diesel-powered vehicles frequently reduces total transportation-related energy consumption, as measured by total BTUs consumed;
- Electric vehicles have lower cost for operation, maintenance, and fuel than gasoline or diesel-powered equivalents.

Voltage Optimization Devices:

- Savings may be achieved by reducing energy lost during the transmission and transformation processes.

Ineligible Measures:

- Measures that are not permanently installed and can be easily removed;
- Any measure that cannot be explained in terms of industry-standard engineering or scientific principles.

Appendix C: C-PACE Program Agreement

Appendix D: Disclosure of Risk

- Loudoun County and its Program Administrator do not provide legal advice and will not mediate any disputes between any participants in the Loudoun County C-PACE Program, including but not limited to, Borrowers of Eligible Properties and their tenants, Capital Providers, Registered Contractors, Project Developers, energy service companies, and utilities.
- In addition to other designated and implied responsibilities in the Loudoun County C-PACE Program, the Borrower is responsible for reviewing the terms, conditions, and obligations implied by the C-PACE Program Agreement, as well as the terms of the Financing Agreement or any other supplemental agreements with the Capital Provider and all agreements with Registered Contractors, Qualified Energy Professionals, and any other parties to the project.
- Borrowers should not rely on Program Administrator's approval of a Registered Contractor as assurance of the Registered Contractor's qualifications. Property Borrowers are responsible for conducting their own due diligence, including but not limited to consideration of professional licenses, finances, performance, and pricing, before selecting a contractor.
- Loudoun County and the Program Administrator do not provide any accounting advice regarding how a Borrower should treat the C-PACE Loan in their books and records.
- Loudoun County and the Program Administrator have the right to review all projects for eligibility and may approve Projects for C-PACE Loans according to the standards and criteria set forth in these Program Guide.
- Loudoun County and the Program Administrator retain ultimate discretion whether to approve C-PACE Loans and enter into a C-PACE Program Agreement to levy a C-PACE Lien against an Eligible Property.
- Loudoun County and the Program Administrator:
 - Do not endorse any particular Capital Provider, Registered Contractor, engineering/energy firm, manufacturer, product, or system design by this offering.
 - Are not responsible for any tax liability imposed on the recipient as a result of the payment.
 - MAKE NO REPRESENTATION OR WARRANTY, AND ASSUME NO LIABILITY WITH RESPECT TO THE QUALITY, SAFETY, PERFORMANCE, OR OTHER ASPECT OF ANY DESIGN, CONSULTING, PRODUCT, SYSTEM, EQUIPMENT, OR APPLIANCE INSTALLED OR RECEIVED AND EXPRESSLY DISCLAIM ANY SUCH REPRESENTATIONS, WARRANTIES, AND LIABILITY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Please contact your contractor for detailed manufacturer equipment warranties.
 - Do not guarantee that installation and operation of energy efficient equipment will result in reduced usage or in cost savings to a Borrower or any occupants of an Eligible Property.

- Are not responsible for the proper disposal/recycling of any waste generated as a result of any Project.
- Are not liable for any damages, including any incidental or consequential damages, arising out of the operation or malfunction of the products, equipment, or appliances, or the installation thereof related to a Project.
- Unless notified in writing, Program Administrator reserves the right to publicize participation in the Program.
- The Borrower is responsible for verification that qualified products, systems equipment or appliances were installed in the Project. However, upon a reasonable notice period, the Program Administrator reserves the right to conduct a separate site visit at its discretion.