



Loudoun County, Virginia

Commercial Property Assessed Clean Energy (C-PACE) Financing Program Guide

Administered by the Virginia PACE Authority

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Disclaimers

This Program Guide (this "Program 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 ("Program"). This Guide and all provisions hereof are subject to Chapter 825 of the Codified Ordinances of the County of Loudoun, Virginia ("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."

All capitalized terms used in this Program Guide that are not specifically defined shall have the meanings set forth in Appendix A (Glossary of Terms) of this Program Guide. All Glossary terms are bolded when first referenced in the Program Guide.

1.0 Executive Summary

Loudoun County, Virginia (**County**) and the Virginia PACE Authority (**VPA**) are pleased to offer Loudoun County, Virginia Commercial Property Assessed Clean Energy (**C-PACE**) Financing Program.

Background

Through the **C-PACE Act** (§15.2-958.3 of the Code of Virginia), Virginia local governments are authorized to create C-PACE programs to facilitate, through C-PACE Financing, the installation of energy efficiency, renewable energy, water efficiency, resiliency, and stormwater management improvements to **Eligible Properties**. Loudoun County added a new chapter (Chapter 825) to the Loudoun Code of Ordinances to establish the C-PACE Financing Program (**Program**) for which VPA is the **Program Administrator**. VPA is a nonprofit corporation whose mission is to provide C-PACE program administrative services for local governments in the Commonwealth of Virginia. VPA ensures that Projects are eligible for C-PACE Financing under the C-PACE Act, the local ordinance, and this Program Guide and submits each C-PACE Project (**Project**) to the County for final approval.

C-PACE is an innovative financing solution for property owners looking to install energy and water conservation, renewable energy, and resiliency measures in new and existing buildings. The Program enables property owners of commercial and multifamily properties to obtain low-cost, long-term financing for sustainability Projects that can generate positive cash flow upon completion. The **Term** for a **C-PACE Loan** may not exceed the weighted average of the expected **useful life** of the **Eligible Improvements** or thirty (30) years, whichever is less. This long repayment period can result in cost savings that exceed the total cost of the C-PACE Loan. Benefits may include improved business cash flow due to lower energy and water costs, a reduction in costs related to business interruption and storm/flood damage, less required owner equity, an increase in the value of the improved Eligible Property, and achievement of sustainability goals.

A C-PACE Loan is secured through a voluntary **Special Assessment**, repayment of which is collected by the **Capital Provider** or VPA. Like property taxes, C-PACE Loans automatically transfer to the next property owner if the Eligible Property is sold during the term of the C-PACE Loan. The remaining balance of the C-PACE Loan is repaid by the subsequent property owners, who continue to receive the benefits of the Eligible Improvements. This **Program Guide** provides detailed information about the eligibility requirements for participating in the Program.

The C-PACE Loan process requires that the prospective **Borrower** develop a qualifying energy efficiency, water conservation, renewable energy, and/or resiliency Project with a **Registered Contractor** of his or her choice and arrange Project financing with a qualified Capital Provider. The prospective Borrower and/or Capital Provider then applies online through the [Project Center](#) to qualify the Project for a C-PACE Loan according to the criteria in this Guide. If the Project is approved, the County, Borrower, and Capital Provider enter into a three-party mutual 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 **C-PACE Loan 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 Program is open to any Capital Provider interested in participating. Interested financial institutions should contact VPA to become qualified Capital Providers.

2.0 Program Administration

The day-to-day administration of the Program is run by VPA. This includes tasks such as marketing the Program; onboarding contractors and service providers that are certified as Registered Contractors; reviewing and approving 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.

For general information or to discuss a potential Project:

Website: www.virginiapace.com

Email: info@virginiapace.com

Tel: 757-603-3555

For questions about the status of an application or the application process:

Tel: 757-603-3555

Email: PACE_Admin@slipstreaminc.org

For questions about loan servicing:

Tel: 757-603-3555

Email: servicing@virginiapace.com

3.0 Eligibility Requirements

3.1 Eligible Properties

Eligible Property Types

C-PACE Financing is available to properties located within the County except for single family or multifamily residential properties with fewer than five (5) dwelling units or any residential condominium as defined in [Virginia Code § 55.1-2000](#). Properties that are otherwise exempt from real estate taxation are eligible to participate, as this Program is voluntary. The 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 assessable **real property** located within the territorial limits of the County and must have a property tax or assessment identification number. Assessable real property includes both currently improved (with a building or structure) or unimproved real property.

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 the County limits. However, VPA reserves the right to deny applications for properties with multiple parcel identification numbers if any of the parcels is ineligible to participate in the Program.

3.2 Eligible Projects

C-PACE Loans are available for both improvements to 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 or the appraised value.
- **Real property:** Project improvements must be permanently affixed to the real property and remain permanently affixed to the real property during the Term.
- **Financed Amount thresholds:** The minimum Financed Amount for a Project allowed by the Program is \$50,000. There is no maximum Project **loan amount**. 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. There is no limit on how many loans can be financed under the program or the total value of all C-PACE Loans issued under the Program.
- **Eligible Financed Amount:** A C-PACE Loan must be equal to or less than the amount of the eligible **Project Costs**.
- **Eligible Project Costs:** All costs necessary to complete the Project including without limitation, all direct installation/construction contract costs (materials, labor and overhead); **Ancillary Costs**; and **Soft Costs**. Costs to acquire an Eligible Property are not considered eligible Project Costs.
 - **Ancillary Costs:** Construction costs that are necessary to install an Eligible Improvement. Examples include: roof structural improvements necessary to support a roof mounted solar PV array or building electrical upgrades necessary to support an energy efficient HVAC system.
 - *Please note that the Project documentation must clearly demonstrate that the Ancillary Costs are necessary for installation of the Eligible Improvements.*
 - **Soft Costs:** Indirect costs that are not considered direct construction costs but are necessary to complete the Project. Examples include:
 - Project management;
 - **Closing Fees** (program administration fees);
 - title reports and credit checks;
 - financial services (e.g., Capital Provider fee, **Project Developer** fee)
 - legal services (e.g., Borrower legal, Capital Provider legal);
 - recording charges and escrow disbursement fees;
 - architectural and engineering plans;
 - consulting reports (e.g., Energy Analysis, commissioning reports, measurement and verification, feasibility studies, financial projections, surveys);
 - due diligence reports (e.g., appraisal, environmental, physical condition assessments);
 - energy savings or performance guaranty or insurance;
 - building accreditation;

- permitting fees;
 - interest reserves;
 - capitalized interest; and
 - any other closing costs or fees required to complete the Project.
- *The Borrower may request consideration of additional indirect costs not listed above.*
 - If an indirect cost cannot be allocated directly to the installation of an Eligible Improvement (e.g., Mechanical/Engineering/Plumbing (M/E/P) plans that include plans for installation of new lighting fixtures), then the eligible Soft Cost would be calculated in the same proportion as the proportion of Project Costs to the total construction budget.

Example:

M/E/P plans: \$50,000

Eligible Improvement: LED lighting (materials, labor and overhead): \$100,000

Total construction budget: \$500,000

Percentage of Project to total construction budget: 20%

Eligible Soft Costs: \$10,000 (20%)

- **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. Requirements for calculating Project savings for resiliency and stormwater management Projects are discussed under [Section 4.3 Resiliency and Stormwater Management](#).
- **Lender Consent:** To receive a C-PACE Loan, each Borrower must obtain a written **subordination agreement** executed by the holder of each mortgage or deed of trust lien on the Property prior to **Final Application** approval by VPA. See [Section 8.0 Lender Consent](#).

3.3 Eligible Improvements

Eligible Improvements that qualify for C-PACE Financing include improvements for energy and water efficiency, renewable energy, stormwater management, and resiliency.

Energy and water efficiency: Any measure that results in reduction of consumption of energy and/or water over a baseline established through Energy Analysis.

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);
- a combination of the above three options; and
- production of clean heat or power by use of a renewable energy resource.

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; and
- microgrids.

⇒ *Note: Approval of other types of renewable energy Project types not listed in the Program Guide is at the sole discretion of VPA and County.*

Resiliency: A measure that reduces the impacts of water or wind-related natural or manmade events such as installation of wet and dry floodproofing, raising mechanical and electrical equipment, installation of EV charging stations, and/or reinforcement and insulation of the building envelope to reduce impacts of excessive heat and wind.

Stormwater management: A measure that reduces onsite stormwater runoff into the stormwater system such as reduction in the quantity of impervious surfaces or onsite filtering of stormwater.

⇒ *Note: Please refer to Appendix B: Common C-PACE Eligible Improvements for an expansive list of measures.*

3.4 Borrowers

The Program is voluntary and available to Borrowers with Eligible Properties located within the County. Only a Borrower who voluntarily participates in the Program and closes a C-PACE Loan will have a C-PACE Lien imposed against its Eligible Property. To participate in the Program, a prospective Borrower must:

- be the title holder of an Eligible Property (as reflected in the **Land Records**) or the holder of a qualifying long-term leasehold interest. The Borrower 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.
- provide evidence that the Borrower is not insolvent or in bankruptcy proceedings;
- submit evidence that the title of the Eligible Property is not in dispute prior to recording the **C-PACE Lien Certificate**, as evidenced by a title report certifying the condition of the title, performed, and signed by a title examiner who has been certified by the Virginia Land Title Association or a title insurance commitment from a title insurance company acceptable to the Capital Provider and the County;
- be current in the payment of all obligations secured by the Eligible Property, including loans secured by mortgages or deed of trust liens on the Eligible Property, property taxes, special assessments (including C-PACE Liens), special taxes, other tax liens, and/or water or sewer charges. VPA and the Capital Provider may review public records, including the **Land Records**, to verify compliance with this requirement;
- be current on all federal, state, and local taxes;
- have no federal income tax lien, judgement lien, or other involuntary liens against the Eligible Property, including, but not limited to, construction or mechanics liens, judgments against the Borrower, or eminent domain proceedings. VPA and the Capital Provider may review public records, including the real property records and court documents, to verify compliance with these requirements; and
- have no notices of default or delinquency on property-based debt that have not been cured.

If the Borrower has a leasehold interest (in a long-term lease), the **Fee Simple Owner** would either need to: (1) be a party to the C-PACE Program Agreement; or (2) execute a consent to evidence the fee simple **owner's consent** to the C-PACE Loan and C-PACE Lien on the Eligible Property during the Term, which will be recorded in the Land Records.

3.5 Capital Providers

The Program is open market, which means Borrowers have the flexibility to select their preferred Capital Provider for a Project. A Capital Provider is a lender that finances a C-PACE Loan. 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 Borrowers will retain the right to choose the provider of financing who best suits their business needs. As of the date of this Program Guide, the County has determined that C-PACE Loans are to be financed only by private lenders or financial institutions.

Private lenders and/or financial institutions interested in offering C-PACE Loans must meet certain qualifications to participate in the Program. To become a Capital Provider, the lender/institution must complete and submit an **RFQ**, including a **C-PACE Capital Provider Agreement**. Upon approval by VPA, the applicant will be considered a qualified Capital Provider. Capital Providers are listed on VPA's website.

Borrowers may pre-select their preferred lender for the Project. However, prior to the closing of the applicable C-PACE Loan, VPA must approve the private lender or financial institution as a qualified Capital Provider as outlined above.

The duties of a Capital Provider include the following:

- making the C-PACE Loan;
- notifying the County and VPA of any changes to the **C-PACE Payments**, including recording any updated **Amortization Schedules** in the Land Records; and
- notifying the County and VPA whenever an **assignment** of or an **amendment** to a C-PACE Loan takes place.

3.6 Contractors

All Projects financed through the Program must be installed by a Registered Contractor that has been approved by VPA. 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, then the non-registered company must become a Registered Contractor by completing the contractor registration form available online and receive approval from VPA prior to approval of a Final Application. If a general contractor is responsible for the work of all subcontractors, then only the general contractor would be required to become a Registered Contractor. The installation of Eligible Improvements completed prior to application for C-PACE Financing may be approved by VPA on a case-by-case basis.

To be eligible for a C-PACE Loan, work associated with the installation of an Eligible Improvement that requires a license must be installed by a Registered Contractor that holds the appropriate license. Registered Contractors are responsible for ensuring that all subcontractors hold the appropriate licenses. 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 the 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 (www.virginiapace.com).

4.0 Energy Analysis Requirements

Prospective Borrowers must obtain an Energy Analysis for the Project. The content of an Energy Analysis may vary depending on the type of Project. The Energy Analysis for energy efficiency, water efficiency, and renewable energy Projects must:

- document the existing energy and/or water consumption of the Eligible Property or individual, relevant systems;
 - In the case of new construction, a statutory energy code baseline should be used instead.
- include calculations of the expected energy and/or water savings and/or monetary savings of the Project;
 - The Energy Analysis must demonstrate quantifiable expected savings over the baseline usage during the term of the C-PACE Loan.

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

A **Qualified Energy Professional** will use generally accepted engineering calculations or a building energy model from modeling software approved by the U.S. Department of Energy (“DOE”) to determine savings attributable to the proposed Eligible Improvements. VPA will review the Energy Analysis to verify the assumptions are reasonable and that it complies with the minimum requirements of the Program Guide.

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

⇒ *Note: VPA will review, and has the authority to reject, an Energy Analysis if it does not meet the requirements of this Program Guide.*

4.1 Energy and/or Water Efficiency Improvements to Existing Buildings

The Energy Analysis for a proposed energy and/or water efficiency improvement in an existing building must include the following:

- written description of the proposed Project including each individual Eligible Improvement that will be funded with the C-PACE Loan;
- expected annual energy savings (kWh, BTUs, or therms) over energy baseline usage, 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 (\$);
- clear and logical documentation of assumptions for the calculations of savings;
- an estimate of the expected EUL of each Eligible Improvement and documentation supporting the EUL;
- a calculation of the maximum eligible Term for the loan based on the weighted average of the EUL of the Eligible Improvements;

- 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; and
- a copy of the proposed relevant equipment specs, data sheets, etc.

⇒ If 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. Existing conditions may be determined based on nameplate efficiency ratings of currently installed equipment. Alternatively, the Qualified Energy Professional may use an energy performance model or another professionally accepted method of establishing the 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;
- ASHRAE Standard 90.1 Appendix G;
- Methods in accordance with Virginia Energy Conservation Code (VECC) Section C407.6.1.

4.2 Renewable Energy Systems

An Energy Analysis for renewable energy improvements must contain the following components:

- a description of the proposed renewable energy system including production capacity;
- a description of the site’s ambient conditions (e.g., shading analysis);
- the location of the renewable energy system;
- the energy system foundation (e.g., roof or ground mount);
- the utility consumption profile of the site, including the site’s historic energy use and cost;
- the expected annual energy production (kWh), electrical demand reduction (kW), annual per unit energy production savings (\$) and operational, maintenance, and insurance cost savings (\$);
- any assumptions affecting the cost savings, including:
 - 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; and
- maintenance expenses, as applicable.
- An assessment of total Project capital cost, utility tariffs and interconnection issues, including an analysis of the 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 monitor the system and maintain optimized system performance;
- verification of the availability of net metering if the system generates excess power that is delivered to the utility grid at any time.
 - Systems are not required to be grid connected.

⇒ *Note: At its discretion, VPA may waive one or more of the required components from the above list.*

Baseline for renewable energy systems:

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

4.3 Resiliency and Stormwater Management

A **Project Survey** for resiliency Projects must demonstrate that the Eligible Improvements reduce the impacts of water, thermal, or wind-related natural or manmade events.

A Project Survey for stormwater management Projects must demonstrate that the Eligible Improvements result in a reduction in onsite stormwater runoff into the local stormwater systems, and/or provides reduction of stormwater runoff pollutants. These reductions must exceed the requirements of the County for stormwater management when constructing a new building. For existing buildings, the Survey must demonstrate that the improvement(s) will reduce the quantity of stormwater runoff and/or the pollutant load of existing runoff.

For most projects, a qualified professional reviewing stormwater management and resiliency measures for Project eligibility must be a Professional Engineer (PE). Analysis of specific floodproofing or other types of flood mitigation measures may be performed by a company specialized in this kind of work if approved by VPA in advance.

4.4 New Construction and Substantial Renovation/Adaptive Reuse Projects

The Program is available for the construction of new buildings as well as the substantial renovation of existing buildings or the 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. As a result, additional Energy Analysis requirements are necessary.

Baseline: New Construction

The baseline energy consumption for new construction projects is calculated using the minimum level of equipment efficiency required by the 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 the County or equivalent ASHRAE 90.1 standard established in the [Uniform Statewide Building Code](#) (USBC) of the Commonwealth of Virginia.

The Qualified Energy Professional should also verify local building code compliance with the applicable County department. For the purposes of the energy and/or water savings calculations prepared in the Energy Analysis, the Borrower must demonstrate energy and/or water performance that is greater than the baseline set in the USBC.

The Energy Analysis should summarize that the building's total anticipated performance exceeds 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 Project concerns the substantial renovation or adaptive reuse of an Eligible Property, then the baseline for the purposes of establishing energy or water usage may be set at the minimum code level for the replacement or addition of equipment. Except for the provision of historic utility bills, the Energy Analysis for this Project type should include all other component requirements for New Construction, as outlined above. Energy or water savings for Substantial Renovation/Adaptive Reuse may be established using the appropriate Energy Analysis methodology determined by the Qualified Energy Professional.

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:

- 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 the Energy Analysis guidelines and provide supporting documentation showing that each Eligible Improvement exceeds minimum baseline requirements.
 - Examples of supporting documentation 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.
- 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. Savings calculations for the whole building 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 mentioned 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.

Stormwater management and resiliency measures will be evaluated on a case-by-case basis.

A new construction project that only involves renewable energy installed on a new building is not subject to the additional requirements and should follow the Energy Analysis requirements for renewable energy systems to existing buildings as described in [4.2 Renewable Energy Systems](#).

4.5 Energy Professionals

All Energy Analyses described in [Section 4.0](#) must be prepared and submitted by a Qualified Energy Professional holding one or more of the following certifications:

- Certified [Building Energy Assessment Professional \(BEAP\)](#) offered by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE);
- [Certified Energy Auditor \(CEA\)](#) offered by the 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 (RA or AIA);
- Professional Engineer (PE).

⇒ *Note: other professionals such as a Registered Contractor, Project Developer, solar or wind developer or Capital Provider with the relevant demonstrated experience may also be approved in writing by VPA 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.

5.0 Program Fees

⇒ *Note: The Program and VPA reserve the right to modify the following fee structure. Such modifications will be published in updates to this Program Guide.*

5.1 Closing Fee

The Closing Fee, also known as a **Program Fee**, is a one-time processing fee that is equal to one and a quarter percent (1.25%) of the **net Project Cost**. This fee may be capitalized into the Financed Amount for the Project. There is a minimum Closing Fee of \$3,300 and maximum Closing Fee of \$50,000. This fee is paid out of the proceeds of the C-PACE Loan.

5.2 Servicing Fee

If Capital Providers elect not to bill and collect (service) the C-PACE Payments directly, then VPA will service the C-PACE Loan for a fee (called the **Servicing Fee**). This fee is one and a half percent (1.5%) of the annual C-PACE Payment, with a minimum of \$330 and a maximum of \$1,800. The fee is charged on an annual basis.

5.3 Other Program Expenses

The 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 for a particular Project. Examples of services not covered by the fee include (but are not limited to):

- requesting substantial assistance in developing the Project scope;
- obtaining Lender Consent on behalf of the Borrower;
- time-intensive negotiation of the **C-PACE Documents** or other legal documents;
- obtaining a legal opinion for the Capital Provider; and
- extensive review of a Project beyond VPA’s standard scope of work.

In these cases, the Borrower would be responsible for paying for these expenses, which may be included in the C-PACE Loan amount. These expenses are paid out of the proceeds of the C-PACE Loan. VPA will require evidence that such expenses will be paid before the closing of a C-PACE Loan.

5.4 Sample Project

Costs and Fees		Annual Payments	
\$ 1,000,000.00	Direct Costs	\$45,004.45	Semi-Annual Lien Payment
\$ 100.00	Application fee	\$90,008.89	Annual Lien Payment
\$ 4,000.00	Energy Audit	\$1,350.13	Annual Servicing Fee
\$ 5,000.00	Appraisal, other 3rd party	\$91,359.03	Total Annual Payment
\$ 100.00	Title report, credit check		
\$ 2,000.00	Owner legal		
\$ 1,011,200.00	Net Project Costs		
\$ 50.00	Recording fees		
\$ 12,540.00	Administrator fee	1.25%	
\$ 10,406.86	Capital provider fee	1.00%	
\$ 1,034,196.86	Total Financing Amount Before Capitalized Interest		
\$ 6,070.67	Capitalized interest		
\$ 1,040,267.53	Financing Amount (special assessment amount levied against Eligible Property)		

Assumptions	
Interest rate	6%
Amortization (yrs)	20

5.5 Capital Provider Fee

Capital Providers may charge an origination fee to cover the costs of arranging the C-PACE Loan, which is agreed upon in the C-PACE Loan Agreement.

6.0 C-PACE Loan Application Process

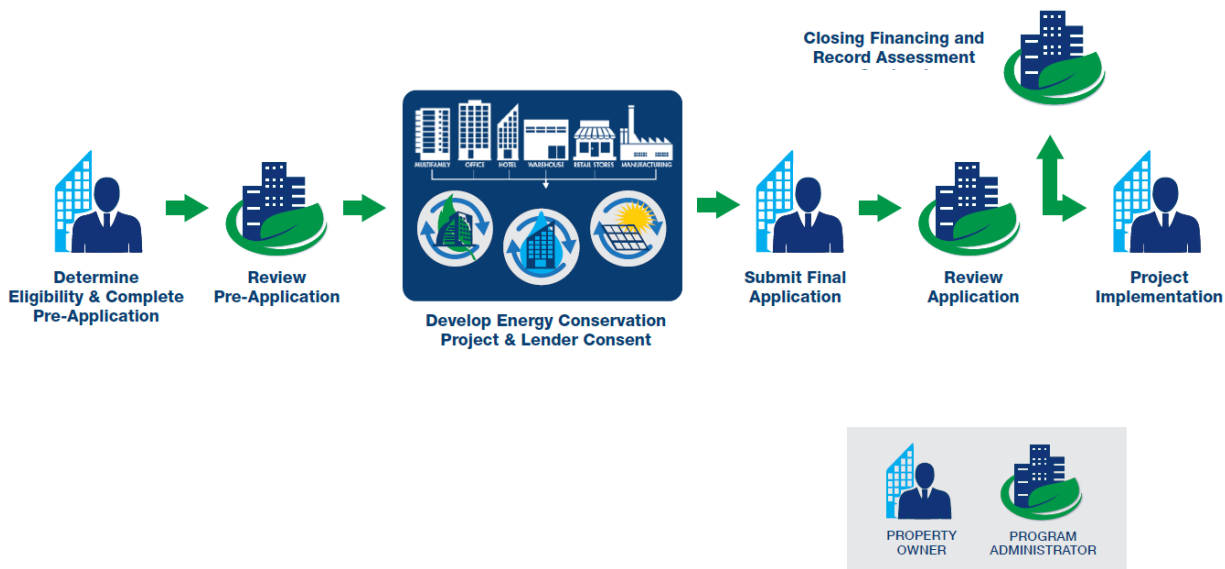
The application process includes application management, approval, and completion of the Project. Repayment of the C-PACE Loan is described in [Section 7.0 C-PACE Loan Administration](#).

Project Center

The Project Center portal contains all documents, applications, and instructions required for a Project to be approved for a C-PACE Loan. A prospective Borrower may access the Project Center [here](#).

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. See the diagram below for a visual description of the process.



⇒ *Note: The prospective Borrower is encouraged to submit a Pre-Application to determine if its property is eligible for financing prior to developing the Project scope.*

6.1 Determine Eligibility and Complete Pre-Application

The **Pre-Application** gives a prospective Borrower the opportunity to establish Project eligibility before investing in project development. The information collected in this step of the process will be used by VPA 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](#). A prospective Borrower will be prompted to establish a username and password which will be used to submit information in the Project Center.

Once a Pre-Application is submitted, VPA will conduct a preliminary review to determine if the Project is eligible for enrollment in the Program. This review will typically be completed within 1-2 business days after receipt of a completed Pre-Application. VPA's approval of a Pre-Application is required prior to submitting the Final Application.

6.2 Select Capital Provider and Develop Project

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

Energy Analysis

The prospective 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

If the Eligible Property has existing deeds of trust and/or mortgages, the prospective Borrower must obtain the written consent of all existing lienholders as a condition of closing the C-PACE Loan. Given that this process can take some time, VPA recommends that the prospective Borrower contact these lienholders early in the scoping process to gauge the likelihood that consent will be granted (See [Section 8.0 Lender Consent](#)).

During this phase, the prospective Borrower should also contact qualified Capital Providers to secure acceptable C-PACE Loan terms and conditions. For more information, see [Section 3.5 Capital Providers](#). The Capital Provider may conduct its own underwriting review of the Project.

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. VPA will also send the prospective Borrower an email with a link to the Final Application within the Project Center. VPA's approval of the Final Application is a requirement to closing the C-PACE Loan.

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

- the executed Final Application completed by the Borrower, with all fields filled including all owner certifications and signatures;
- the executed 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;
- the Energy Analysis conducted according to the requirements of this Program Guide;

- an executed Lender Consent for the proposed Project from each existing lienholder that has a deed of trust on the Eligible Property. (See Section 8.0 Lender Consent for further detail). Lender Consent requests should be delivered to lienholders well in advance (e.g., 30 days) of the anticipated C-PACE Loan closing date;
- the title report disclosing all current lienholders on the Eligible Property and confirming that there are no involuntary liens on the Eligible Property. The title report should be issued no more than 60 days prior to recording the C-PACE Lien Certificate in the Land Records to avoid any intervening title matters appearing of record. The Borrower and Capital Provider are responsible for obtaining the title report;
- the final C-PACE Documents. There should be no material changes to the C-PACE Documents after approval and prior to closing. Submitted C-PACE Documents must include final dates and a final Amortization Schedule, and must be signed by the Capital Provider;
- the determination of value. The Property value must be determined for both taxable and tax-exempt properties using either the assessed value or an appraisal. The Capital Provider may also require an appraisal separate from the requirements of the Program;
- the mortgage or other loan balance(s). Copies of the most recent mortgage loan statement(s) for all loans outstanding on the Eligible Property must be included to determine the current loan-to-value ratio and confirm the Borrower's payment of most recent mortgage payment and loan balance;
- the **Borrower Certificate** signed by the Borrower and notarized. A certificate attesting that the Borrower is 1) current on all **loan payments** secured by a mortgage or deed of trust lien on the Eligible Property, 2) current on all federal, state, and local taxes and there is no federal income tax lien, judgment lien, or other involuntary lien against the Eligible Property, and 3) not insolvent or in bankruptcy or foreclosure proceedings; and
- the Capital Provider's offer to fund. The Borrower must provide documentation that indicates that a Capital Provider has offered to provide a C-PACE Loan for the Project. Such documentation may be evidenced by a signed term sheet, commitment letter, or other documentation reasonably satisfactory to VPA.

Once a complete Final Application is received, VPA will review it for completeness and accuracy and compliance with this Program Guide. VPA will provide the prospective Borrower with written **Notice of Approval** or request more information within ten (10) business days after submission of a completed Final Application. If the Final Application is incomplete, VPA will provide the prospective Borrower the opportunity to complete any missing information. Upon resubmission of the Final Application, VPA will complete its review within ten (10) business days and will respond in writing with the results of its review of the Final Application.

Please note that a Capital Provider may require additional documentation as part of its financing due diligence and closing requirements.

6.4 Close C-PACE Loan and Initiate Project Construction

Upon receipt of the Notice of Approval, the prospective Borrower may proceed with closing the C-PACE Loan. The prospective Borrower must submit to VPA the **C-PACE Program Agreement**, executed by the County, Borrower, and Capital Provider, which includes the:

- terms and conditions for participation in the Program;
- Borrower's acknowledgment and consent for the County to impose a C-PACE Lien and record a C-PACE Lien Certificate against the Borrower's Eligible Property; and

- rights and obligations of the County, Borrower and Capital Provider in connection with the C-PACE Loan.

A copy of the standard form C-PACE Program Agreement is included in this Program Guide in [Appendix C](#). Following the execution of the C-PACE Program Agreement, payment of all applicable fees, and consummation of the C-PACE Loan closing, VPA or the Capital Provider will record the fully executed C-PACE Lien Certificate in the Land Records.

The C-PACE Loan will be provided by the Capital Provider according to mutually agreeable terms between the Capital Provider and Borrower in accordance with the C-PACE Loan Agreement.

6.5 Project Completion

When the Project is complete, the Borrower will forward evidence of completion to VPA by submittal of a **Completion Certificate**. It is the responsibility of the Borrower and/or Capital Provider to ensure that the Project has been successfully completed, including completion and compliance with any necessary approvals of local building codes or standards as issued by County building officials or other City agencies.

7.0 C-PACE Loan Administration

7.1 C-PACE Lien

The C-PACE Lien has the same priority status as County taxes. The C-PACE Payments that are due, and any interest or penalties accrued thereon, constitute a first and prior lien against the Eligible Property from the date that the C-PACE Lien Certificate is recorded until the C-PACE Loan and all interest and penalties are paid in full and the C-PACE Lien has been released of record.

The C-PACE Lien is attached to the land and no portion of the C-PACE Loan shall be eliminated by a foreclosure sale. The C-PACE Loan cannot be accelerated, and the C-PACE Lien cannot be extinguished until the C-PACE Loan is fully repaid. The C-PACE Lien will be enforced by the County in a similar manner as the County enforces delinquent real estate taxes, as specifically provided in the Ordinance and the C-PACE Program Agreement. A C-PACE Loan automatically transfers to the new property owner upon a sale or transfer of the Eligible Property during the Term.

7.2 Repayment of the C-PACE Loan

Repayment of the C-PACE Loan will commence according to the terms of the C-PACE Documents. The first repayment date for the C-PACE Loan will be due in accordance with the Amortization Schedule.

C-PACE Payments will be billed and collected by Capital Providers. Each C-PACE Payment must be paid in full on the relevant due date under the C-PACE Program Agreement or the C-PACE Payment will be considered delinquent. If a Capital Provider is not able to service the C-PACE Payments, VPA will provide this service on behalf of a Capital Provider as discussed in [5.3 Servicing fee](#) and in [Section 7.5 Servicing of C-PACE Loan Payments](#).

Pursuant to the C-PACE Program Agreement, each C-PACE Payment must be paid in full by the relevant due date reflected on the Amortization Schedule, or the C-PACE Payment will be considered delinquent. **Delinquent Payments** are subject to interest, penalties, and/or other fees in accordance with the C-PACE Documents.

Nothing in this Program Guide may supersede or alter the terms and conditions contained in the C-PACE Documents.

7.3 Delinquent C-PACE Payments and Enforcement Remedy

If the Borrower defaults for failing to pay the C-PACE Payments on time, then the C-PACE Lien will be enforced by the County in a similar manner as the County enforces delinquent real estate taxes, including enforcement through a tax foreclosure sale and/or other collection remedies. However, the outstanding balance of the C-PACE Loan will not be accelerated, and the C-PACE Lien will not be extinguished by a tax foreclosure sale.

Delinquent Payments shall be subject to all fees and collection methods permitted under Virginia law for the collection of delinquent real estate taxes. The County shall be entitled to recover costs and expenses, including attorneys' fees, in a suit to collect Delinquent Payments, in a similar manner as in a suit to collect delinquent real estate taxes, including utilizing any administrative remedies provided by Virginia law. The costs and expenses recovered by the County shall be in addition to any costs, expenses, interest, or other amounts due and owing to Capital Provider in accordance with the C-PACE Documents.

7.4 Release of the C-PACE Lien

Once the C-PACE Loan is repaid in full according to the terms of the C-PACE Documents, the Capital Provider will record a release of the C-PACE Lien in the Land Records.

7.5 Servicing of C-PACE Payments

The Capital Provider will bill and collect the C-PACE Payments. The Capital Provider will also provide VPA with information on an annual basis to confirm payment, prepayment, late payment, etc. of C-PACE Payments. The Capital Provider will notify VPA and the County immediately of any delinquencies, repayments, or lien releases, and related actions required of the County, as applicable.

If the Capital Provider is not able to service the loan, VPA will service it, upon request. VPA will issue a bill to the Borrower instructing that payment be made to the Capital Provider. The Capital Provider will confirm receipt of the payment with VPA immediately, pursuant to the terms of the C-PACE Documents and any other Project servicing agreement that is required by VPA. Each C-PACE Payment that is serviced by VPA will include a Servicing Fee, as described in [Section 5.3 Servicing Fee](#).

8.0 Lender Consent

Per the C-PACE Act, a Borrower must obtain the written consent and subordination of all existing mortgage or deed of trust lienholders of record encumbering the Eligible Property prior to closing the C-PACE Loan. Lender Consent must be in the form approved by each existing lienholder. The purpose of Lender Consent is to subordinate each lienholder's interest in the Eligible Property to the due and unpaid C-PACE Payments and Delinquency Payments.

VPA recommends that the Borrower consult with its chosen Capital Provider or Project Developer before approaching any existing lienholders of the Eligible Property. Many traditional lenders are not familiar with C-PACE and may not understand how the Program works. In seeking consent, the Borrower may find it helpful to

inform prior lienholders that if there is a C-PACE Loan default and tax foreclosure, the C-PACE Loan will not accelerate, and only the Delinquent Payments will enjoy super-priority lien status over the existing lienholder liens. Further, a Borrower should emphasize that a C-PACE Loan typically increases the value of the lienholder's collateral. Borrowers are encouraged to have the Capital Provider or Project Developer attend the meeting with the existing lienholders.

A template of a Lender Consent agreement will be available upon request from VPA; however, the ultimate form and substance of the Lender Consent agreement will be subject to the discretion of each lienholder.

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 VPA to ensure that the changes to the Project remain consistent with the Program requirements. The Borrower must provide documentation of the following:

- any change in Project scope with a description of the changes;
- a revised Project budget to account for changes in Project Costs;
- new energy and operations savings estimates, as evidenced in a revised Energy Analysis; and
- 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 VPA for approval.

Appendix A: Glossary of Terms

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

Ancillary Costs - costs necessary to install an Eligible Improvement. Examples include: roof structural improvements necessary to support a roof-mounted solar PV array or building electrical upgrades necessary to support an energy efficient HVAC system.

Amortization Schedule - the schedule of C-PACE Payments necessary to repay the C-PACE Loan over the C-PACE Term, which is attached to and incorporated into the C-PACE Loan Agreement and certain other C-PACE Documents, including the C-PACE Lien Certificate.

Application Fee - see the definition of **Program Fee**.

Borrower - the owner of Eligible Property who obtains a C-PACE Loan from a Capital Provider under the Program in accordance with the Program Guide or the successor in title to the original Borrower. The holder(s) of a long-term leasehold interest in an Eligible Property may also qualify as a Borrower.

Borrower Certificate - a certificate from a Borrower, certifying that: 1) the Borrower is current on all loan payments secured by a mortgage or deed of trust lien on the Property, 2) the Borrower is 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 3) the Borrower is not insolvent or in bankruptcy or foreclosure proceedings.

Capital Provider - 1) a private lending institution that has been approved by VPA 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.

Clerk's Office - the Clerk's Office of the Circuit Court of Loudoun County.

Closing Fee or Program Fee (as defined and referenced in the Ordinance) - a one-time Program administration fee equal to one and a quarter percent (1.25%) of the net Project Cost. This Closing Fee may be capitalized into the Financed Amount for the Project. There is a minimum Closing Fee of \$3,300 and maximum Closing Fee of \$50,000 (See [Section 5.0 Program Fees](#) for further details). Once a project is closed, the Application Deposit is credited towards the Closing Fee.

Completion Certificate - a certificate of completion executed by the Borrower and Contractor and may be modified by the Capital Provider in its reasonable discretion as required.

County - Loudoun County, Virginia.

C-PACE - Commercial Property Assessed Clean Energy.

C-PACE Act or Act (as defined and referenced in the Ordinance) - Virginia's clean energy financing law, codified at Virginia Code [§15.2-958.3](#), as amended.

C-PACE Amendment or Amendment (as defined and referenced in the Ordinance) - an Amendment to the C-PACE Lien Certificate executed by the County, Capital Provider, and Borrower, which shall be recorded in the Land Records against the Property by the Capital Provider to evidence each amendment to the C-PACE Loan and C-PACE Lien.

C-PACE Assignment or Assignment (as defined and referenced in the Ordinance) - an assignment of the C-PACE Lien Certificate, executed by the Capital Provider from time to time without consent from the County or Borrower, which shall be recorded in the Land Records against the Property by the Capital Provider to evidence the Capital Provider's assignment of the C-PACE Loan and C-PACE Lien.

C-PACE Capital Provider Agreement - the document executed by VPA and Capital Provider that defines the terms in which VPA designates the private lender or financial institution as a qualified Capital Provider in the Program.

C-PACE Documents or Loan Documents (as defined and referenced in the Ordinance) - the C-PACE Program Agreement, the C-PACE Loan Agreement, C-PACE Note, C-PACE Lien Certificate, C-PACE Amendment (if any), C-PACE Assignment (if any), completion guaranty (if any), UCC-1 financing statement(s) (if any), disbursement memorandum, and all other documents executed in connection with the C-PACE Lien, C-PACE Loan, and/or the transaction contemplated by this Agreement, including any and all modifications, restructurings, extensions, consolidations, amendments, and/or assignments of the aforementioned documents.

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 - a loan from a Capital Provider to a Borrower to finance a Project in accordance with the Program Guide. Per the Ordinance, a C-PACE Loan is available for commercial buildings. Residential properties with fewer than 5 dwelling units and condominium properties (including common areas) are *not eligible*.

C-PACE Loan Agreement or Financing Agreement (as defined and referenced in the Ordinance) - the document executed by the Borrower and Capital Provider that defines the terms of the C-PACE Loan, which comply with the requirements of the Program, and which are mutually agreed upon by the Borrower and Capital Provider.

C-PACE Loan Amount - the total amount of the loan principal, plus all interest, penalties, fees, costs, and other amounts accrued as outlined in the C-PACE Documents.

C-PACE Note - the promissory note evidencing the Borrower's obligation to repay the C-PACE Loan, executed by the Borrower, and made payable to the Capital Provider in the original principal amount of the C-PACE Loan. It includes any and all modifications, restructurings, extensions, consolidations, amendments, and/or assignments, a form of which C-PACE Note is attached to and incorporated into the C-PACE Loan Agreement.

C-PACE Payment or Loan Payment (as defined and referenced in the Ordinance) - 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 C-PACE Act in such amounts and at such times as described in the C-PACE Documents.

C-PACE Program Agreement - the agreement between the Borrower, County, and Capital Provider, and their respective successors and assigns, which includes the terms and conditions for participation in the Program; the Borrower's acknowledgment and consent for the 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. A form of this document is attached to this program guide.

Delinquent Payment - any C-PACE Loan payment that was not paid by the Borrower in accordance with the C-PACE Documents and the Amortization Schedule.

Eligible Improvement - the initial acquisition and installation of clean energy, energy efficiency, resiliency, stormwater management, or water efficiency improvements for both existing properties and new construction.

Eligible Property or Property - an assessable real property located within the territorial limits of the County. A residential property with fewer than five (5) dwelling units or a residential condominium is not an Eligible Property (as defined in Virginia Code Ann. § 55.1-2000).

Energy Analysis - 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 Energy Analysis Requirements](#).

EUL or Useful Life (as defined and referenced in the Ordinance) - expected Useful Life. This is the estimated lifespan of an asset during which it is in good enough condition to function properly and be used.

Fee Simple Owner – an owner who owns the land outright and has a complete grant of title to the Real Property.

Final Application - the application to participate in the Program and receive the C-PACE Loan that is approved by VPA and that confirms Borrower has met all the requirements set forth in this Program Guide. Approval of the Final Application by VPA is a condition to closing the C-PACE Loan.

Financed Amount or Loan Amount (as defined and referenced in the Ordinance) - the aggregate dollar amount of the C-PACE Loan and resulting special assessment levied against the Eligible Property as set forth in the C-PACE Lien Certificate.

Land Records - means the land records of the Clerk of the Loudoun County Circuit Court.

Lender Consent or Subordination Agreement (as defined and referenced in the Ordinance) - a written subordination agreement executed by the holder of each existing lien, mortgage, or deed of trust on an Eligible

Property that is the subject of a C-PACE Loan, which allows the C-PACE Lien to have senior priority over any existing lien, mortgage, or deed of trust (See [Section 8.0 Lender Consent](#) for further details).

Net Project Cost - the total amount of all Project Costs, less (a) capitalized Interest, (b) the Closing Fee, (c) all Capital Provider fees, and (d) recording fees and/or taxes, if applicable.

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

Ordinance - a municipal regulation. In this case, Chapter 825 of the Loudoun Code of Ordinances.

Owner Consent - documentation to evidence the Property Owner's consent to and subordination of the C-PACE Loan and C-PACE Lien on the Property during the Term.

Pre-Application - the initial application completed by a prospective Borrower by which VPA 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 or C-PACE Program (as defined and referenced in the Ordinance) - the C-PACE Financing Program established in Loudoun County which 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.

Program Administrator - the Virginia PACE Authority, Inc. ("VPA")

Program Guide - this document, which outlines the requirements and procedures of the C-PACE Financing Program.

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 VPA.

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 the VPA.

Project Costs - all costs necessary to complete the Project. This includes all hard costs such as the installation/construction contract costs (materials, labor and overhead); required ancillary costs; and all soft costs, necessary to install Eligible Improvements.

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.

Project Survey - the assessment or analysis conducted by a qualified professional for a resiliency or stormwater management Project.

Qualified Energy Professional - a professional meeting the criteria to perform the Energy Analysis.

Real Property - one or more defined interests, benefits, or rights inherent in the ownership of real estate.

Registered Contractor - a business or organization that has registered with the Program to provide services to Borrowers. Examples of Registered Contractors include general contractors, HVAC installers, lighting contractors, solar developers and installers, energy engineering firms, commissioning agents, and licensed engineers and architects.

RFQ - Request for Qualifications.

Servicing Fee - a fee that is collected annually with the C-PACE Payment over the term of the C-PACE Loan if the VPA services the C-PACE Payments. (See [Section 5.0 Program Fees](#) for further details).

Soft Costs - indirect costs that are not considered direct construction costs but are necessary to complete the Project.

Special Assessment - a tax charged to fund local improvements and applies only to properties that will benefit from the improvements. In the case of C-PACE Financing, a charge is levied by the County against the Eligible Property and for the benefit of the Eligible Property at the request of the Borrower.

Term - a period of time beginning on the effective date of the C-PACE Documents and ending on the date on which the C-PACE Loan and any other amounts owed pursuant to the C-PACE Documents have been repaid in full in accordance with the C-PACE Documents and Amortization Schedule.

Virginia Code - the Code of Virginia Annotated (1950), as amended.

VPA - the Virginia PACE Authority, a tax-exempt 501(c)3 nonprofit entity that administers the 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.

Appendix B: Common C-PACE Eligible Improvements

Energy Efficient Improvements

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, VPA 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;
- heat recovery, including air, water, or steam condensate heat or energy recovery;
- steam traps;
- building enclosure/envelope improvements; and
- building automation (energy management) systems.

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; and
- 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 Financing 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, reflectors, and the installment of LED bulbs and fixtures;

- timers and occupancy sensors for meeting rooms and other intermittently occupied spaces; and
- smaller impact opportunities including security lighting, stairwell lighting, exterior night-time security lighting, and exit signs.

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

- 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); and
- 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;
 - the cost premium over standard motors normally can be recovered in less than two (2) years; and
- 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)

- VSDs 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; and
 - extends motor life.

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

- new packaged units for increased efficiency and indoor comfort;
- heat pumps;
- proper sizing of HVAC equipment
 - full-load operation is more efficient than part load operation - consider fan capacity reduction or staging of two (2) smaller units rather than partial loading of one large unit;
- installation of VSDs on HVAC motors;
- the balancing of air and water supply systems (by installing economizers and direct digital controls) which removes trouble spots demanding inefficient system operation. This improves maintenance and eliminates simultaneous heating and cooling;
- variable air volume conversions, which differs significantly from constant air flow;
- ventilation reduction; and
- unoccupied shutdown or temperature setback/setup (controls).

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

- new chiller models, which can be up to 30-40 percent more efficient than existing equipment;
- upgrades of lead chiller(s) (base load) to high efficiency;
- management of chiller and condenser settings to minimize compressor energy;
- optimization of pumping energy for the distribution of chilled water
- optimization of 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)

- Replacement of steam with hot water boilers for hot water heating loads; including heat pump water heaters;
- improved maintenance;
- optimized operation/staging in multiple boiler plants;
- optimized boiler controls;
- tuning or replacement of burners;
- addition of small “pony” boilers for low loads, which result in:
 - reduced fuel consumption/energy costs;
 - reduced emissions;
 - reduced maintenance costs; and
 - 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, including energy recovery units, heat pipes, enthalpy wheels or similar;
 - boiler combustion air;
 - boiler feedwater; and
 - inlet water for domestic hot water.

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

- new electronic controls which are more precise and reliable when compared to old controls that may still be pneumatic systems based on compressed air;

- automated lighting, chiller, boiler, and HVAC operation including:
 - load management, including load shedding, scheduling, and other building-to-grid interactive features;
 - optimal start/stop/warm up;
 - ventilation control;
- whole-building energy management systems, which may come with other advanced control technologies, such as:
 - security, fire, and life safety;
 - alarm monitoring and report generation;
 - preventive maintenance scheduling;
- remote monitoring/metering capabilities; and
- plug-load controls.

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

- roof insulation, which, when combined with reflective roof coatings in warm climates, reduces energy consumption;
- a review of 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; and
- replacement windows with more energy efficient glazing.

Water Usage Efficiency Improvements (typical 3- to 5-year simple payback)

- replacement of toilets, urinals, and other bathroom fixtures which can greatly impact domestic water use;
- replacement of pre-rinse valves, dishwashers, and icemakers in commercial kitchens, which can save water;
- upgraded laundry equipment in commercial properties and Laundromats;
- installation of cooling towers, condensers, and steam boilers HVAC systems, which can reduce water consumption; and
- installation of new equipment in car washes to achieve 80-100% recycled water use or utilization of applicable gray water sources, film and x-ray processing, and high-tech manufacturing which can reduce industrial water consumption.

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

- solar photovoltaic power;

- solar thermal;
- wind power;
- geothermal energy;
- fuel cell;
- combined heat and power;
- battery storage;
- microgrids;
- 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; and
- voltage optimization devices
 - savings may be achieved by reducing energy lost during the transmission and transformation processes.

Resiliency Improvements

- flood vents;
- floating foundations;
- hurricane shutters;
- reinforced roofing systems;
- thermal protection/insulation;
- sea walls;
- sump pumps;
- wet and dry floodproofing;
- emergency generators (non-diesel as primary fuel); and
- infrastructure to raise equipment above 3-foot freeboard.

Stormwater Management Improvements

- green roofs;
- blue roofs;
- pervious pavement/pavers;
- rainwater capturing systems; and

- other stormwater management systems as approved by the Virginia Best Management Practices (BMP) Clearinghouse, or the Chesapeake Bay Basinwide BMP Verification Program.

Ineligible Improvements

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

Appendix C: Disclosure of Risk

The County and VPA do not provide legal advice and will not mediate any disputes between any participants in the 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 Program, Borrower is responsible for reviewing the terms, conditions, and obligations implied by the C-PACE Program Agreement, as well as the terms of the C-PACE Loan Agreement or any other supplemental agreements with Capital Provider and all agreements with Registered Contractors, Qualified Energy Professionals, and any other parties to the project.

Borrowers should not rely on VPA's approval of a Registered Contractor as assurance of the Registered Contractor's qualifications. 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.

The County and VPA do not provide any accounting advice regarding how a Borrower should treat the C-PACE Loan on their books and records.

The County and VPA 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 this Program Guide.

The County and VPA 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.

The County and VPA:

- 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, VPA reserves the right to publicize participation in the Program; and
- Borrower is responsible for verification that qualified products, systems equipment or appliances were installed in the Project. However, upon a reasonable notice period, VPA reserves the right to conduct a separate site visit at its discretion.

Appendix D: C-PACE Program Agreement