CERTIFICATION AND FINANCING PROPOSAL

PETROS PROPERTY-ASSESSED CLEAN ENERGY (PACE) FINANCING PROGRAM FOR THE U.S. BORDER REGION

Published: July 7, 2020

CONTENTS

EXECUTIVE SUMMARY 1

1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES 2

2. ELIGIBILITY 2

2.1. Project Type 2

2.2. Project Location 2

2.3. Project Sponsor and Legal Authority 3

3. CERTIFICATION CRITERIA 4

3.1. Technical Criteria 4

3.1.1. General Community Profile 4

3.1.2. Project Scope 9

3.1.3 Technical Feasibility 11

3.1.4. Land Acquisition and Right-of-Way Requirements 13

3.1.5. Project Milestones 13

3.1.6. Management and Operation 13

3.2. Environmental Criteria 13

3.2.1. Environmental and Health Effects/Impacts 13

A. Existing Conditions 13

B Project Impacts 15

C. Transboundary Impacts 17

3.2.2. Compliance with Applicable Environmental Laws and Regulations 17

A. Environmental Clearance 15

B. Mitigation Measures 18

C. Pending Environmental Tasks and Authorizations 18

3.3 Financial Criteria 18

4. PUBLIC ACCESS TO INFORMATION 19

4.1. Public Consultation 19

4.2. Outreach Activities 19

EXECUTIVE SUMMARY

PETROS PROPERTY-ASSESSED CLEAN ENERGY (PACE) FINANCING PROGRAM FOR THE U.S. BORDER REGION

Project: The proposed project consists of providing financing to promote the implementation of qualified energy efficiency, renewable energy, water conservation and resiliency elements in non-residential properties, such as commercial, industrial, mixed-use and agricultural facilities, through available local Property Assessed Clean Energy (PACE) programs[1] (the "Project" or "Petros PACE Program").[2] The Project will be implemented within the 100-kilometer (62.5 mile) border region of the United States in cities and counties with PACE approved legislation.

Objective: The Project will decrease demand on fossil-fuel-based energy sources and/or for water sources through the financing of energy efficiency, renewable energy, water conservation and resiliency components supported by a local PACE program ("subproject"), contributing to the displacement of harmful emissions and improved water management.

Expected Outcomes: The Project is expected to generate environmental and human health benefits related to the implementation of renewable energy, energy efficiency, water conservation and resiliency subprojects, considering the following results measurement indicators:

- Renewable energy and energy efficiency subprojects:
  - Renewable energy generation capacity (kilowatts)
  - Energy generation/savings (kilowatt-hours).

[1] Commercial PACE programs are a proven form of financing that enables non-residential property owners to obtain loans for water conservation, energy efficiency, renewable energy and resiliency projects. Participants repay the loans through a property assessment or tax lien imposed by the local government at the request of the property owner.
[2] The specific components of the Project have not yet been defined, but they are eligible for NADB financing by sector and jurisdiction. The subprojects that will be financed by NADB will be selected by the sponsor based on a pre-agreed framework that includes a description of the components eligible for NADB financing. The subprojects will be selected once the specific financing application is received. The scope of the Project considers both new construction and improvements to existing facilities. For new construction, NADB will only finance eligible elements through applicable local PACE programs. In the case of improvements to existing buildings, it is expected that all such subprojects would be eligible.

- Emission displacement per year based on the quantity of energy generation/savings.[3]

- Water conservation subprojects:
  - Quantity of water saved (gallons of water/year).

- Resiliency subprojects:[4]
  - Buildings with enhanced resiliency (square feet).

The Project will provide financing for PACE program subprojects that will be submitted by the property owner to Petros PACE Finance, LLC for approval based on a third-party expert review. The specific results measurement targets (baseline and expected results) for each approved subproject will be recorded at that time and verified upon implementation.

Sponsor:	Petros PACE Finance, LLC (Petros).
Borrower:	Petros PACE Border Fund, LLC.
Estimated Project Cost:	US$320.0 million.
NADB Loan Amount:	Up to US$80.0 million.

[3] Emission displacement will be calculated when specific information for each subproject to be implemented is available. According to the U.S. Energy Information Administration, the emission factors for California are: 0.22291 metric tons/megawatt-hour (MWh) for carbon dioxide (CO_2); 0.00036 metric tons/MWh for nitrogen oxides (NOx) and 0.0 metric tons/MWh for sulfur dioxide (SO_2). The emission factors for Arizona are: 0.41723 metric tons/ MWh for CO_2; 0.00032 metric tons/MWh for NOx and 0.00047 metric tons/MWh for SO_2. The emission factors for New Mexico are: 0.56387 metric tons/ MWh for CO_2; 0.0005 metric tons/MWh for NOx and 0.00009 metric tons/MWh for SO_2. The emission factors for Texas are: 0.48124 metric tons/(MWh for CO_2; 0.00036 metric tons/MWh for NOx and 0.00041 metric tons/MWh for SO_2.

[4] Under PACE programs, resiliency projects are defined as seismic strengthening and wildfire hardening. Wildfire hardening subprojects include any improvements approved by the California Department of Forestry and Fire Protection. Seismic strengthening subprojects include a broad array of improvements and measures designed to prevent damage or destruction of a building during a seismic event.

CERTIFICATION AND FINANCING PROPOSAL

PETROS PROPERTY ASSESSED CLEAN ENERGY (PACE) FINANCING PROGRAM FOR U.S. BORDER REGION

1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES

The proposed project consists of providing financing to promote the implementation of qualified energy efficiency, renewable energy, water conservation and resiliency elements in non-residential properties, such as commercial, industrial, mixed-use and agricultural facilities, through available local Property Assessed Clean Energy (PACE) program (the "Project").[5] The Project will be implemented within the 100-kilometer (62.5 mile) border region of the United States in cities and counties with PACE approved legislation. The Project is expected to generate environmental and human health benefits related to the implementation of renewable energy, energy efficiency, water conservation and resiliency components supported by a local PACE program ("subprojects") by reducing demand for fossil-fuel-based energy sources and/or water sources and thus contributing to the displacement of harmful emissions and improved water management.

2. ELIGIBILITY

2.1. Project Type

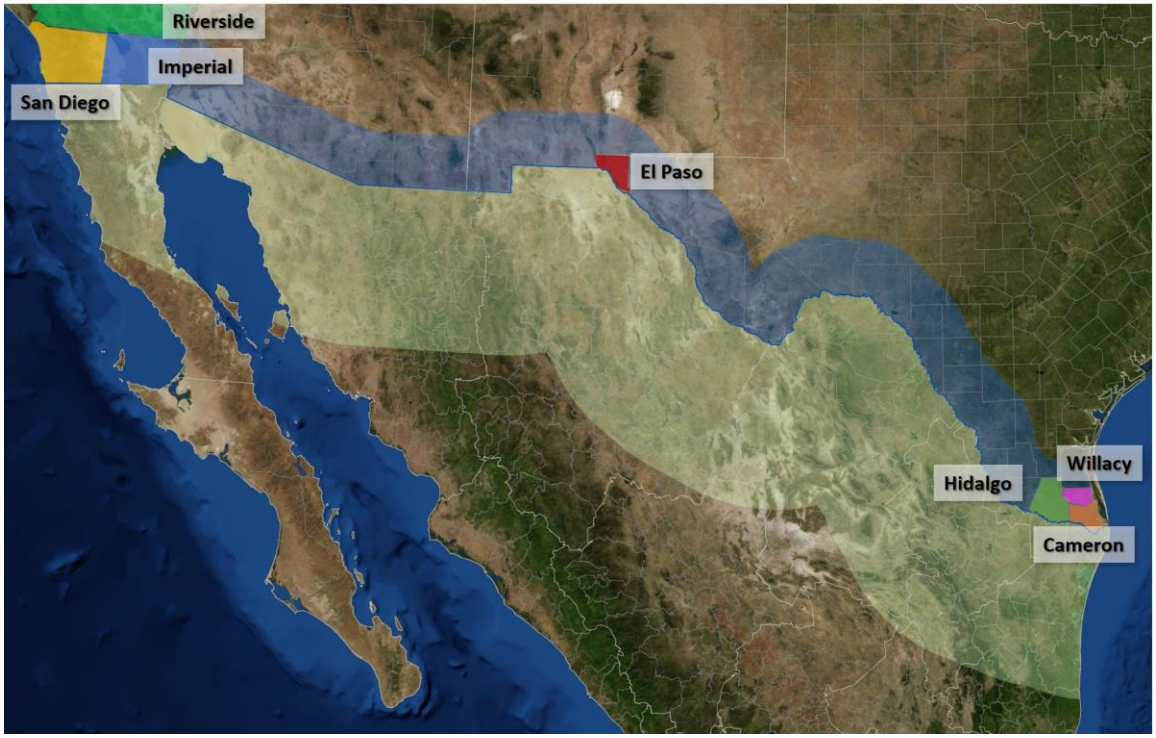
The Project falls in the eligible sector of clean and efficient energy since the prevalent type of subprojects will fall in this category. The Project may also include subprojects in the categories of water conservation and sustainable buildings.

2.2. Project Location

The Project will be implemented within the 100-kilometer (62.5 mile) border region in the United States where a state and local PACE program has been established. Figure 1 illustrates the geographic location of the counties within the 100-kilometer region that have PACE legislation.

[5] Commercial PACE programs are a proven form of financing that enables non-residential property owners to obtain loans for water conservation, energy efficiency, renewable energy and resiliency projects. Participants repay the loans through a property assessment or tax lien imposed by the local government at the request of the property owner. Under PACE programs, resiliency projects are defined as seismic strengthening and wildfire hardening.

Figure 1
PROJECT LOCATION MAP



2.3. Project Sponsor and Legal Authority

The private-sector project sponsor is Petros PACE Finance, LLC (Petros or the "Sponsor"), a specialty finance company headquartered in Austin, Texas, and focused exclusively on the commercial property sector of PACE programs (C-PACE). The borrower will be Petros PACE Border Fund, LLC (the "Borrower"), a wholly-owned affiliate of the Sponsor. Petros was founded in 2010 with significant expertise in commercial real estate and provides long-term financing for energy and water efficiency, renewable energy and resiliency projects to non-residential property owners.[6] The legal representatives of Petros and the Borrower are Mr. Jim Stanislaus and Mr. Mansoor Ghori.

PACE programs are created through state legislation and instituted by local ordinances, which establish the eligible property investments of the program and a method for repayment through property tax collection.[7]

[6] Source: Petros, https://www.petros-pace.com/
[7] PACE legislation authorizes two sources for financing PACE programs secured by a property assessment lien: i) third-party financers or ii) public financing (bonds). In order to participate, a third-party financer must abide by the PACE terms established by the local government and agreed to in the financial contract.

The PACE enabling legislation enacted by each U.S. border state is described below:[8]

- *California*: Assembly Bills (AB) 811, 279, 474, 2693 and 1284 and Senate Bills (SB) 77, 555 and 242 authorize cities, counties and other special districts to establish voluntary contractual tax assessment programs to finance individual energy efficiency, renewable energy and resiliency projects fixed to residential, commercial, industrial or other real property. Under the AB 811 amendment to Chapter 29, a city, county or other special district (such as a joint powers authority) may designate any area or portion of an area within the city or county as an area in which an authorized official (such as a treasurer or program manager) and property owner may enter into a contractual assessment to finance the cost of energy and water efficiency upgrades, renewable energy systems and resiliency components on property located within the designated district.[9]

- *Arizona*: Arizona currently does not have any enabling legislation; however, it is being discussed in various committees and may be addressed on future legislative agendas.

- *New Mexico*: House Bill 0572 and Senate Bill 0647 authorize counties or municipalities to create districts for property owners who wish to retrofit their properties with alternative energy (predominantly solar), equipment for electrical generation, space heating and cooling and water heating.

- *Texas*: House Bill 3187 and Senate Bill 385 authorizes municipalities and counties to work with private-sector lenders and property owners to finance qualified improvements using contractual assessments voluntarily imposed on the property by the owner.

Petros evaluates the commercial PACE programs enacted by local authorities to ensure that the specified standards are met, including program parameters, municipal legal provisions, validity of the municipal bonding authority, program staffing and capacity, and the quality of the program administrator. Once Petros has been accepted as a PACE financing provider within a given jurisdiction, potential subprojects will be submitted through Petros under its predefined standard application process.

3. CERTIFICATION CRITERIA

3.1. Technical Criteria

3.1.1. General Community Profile

The four U.S. border states—California, Arizona, New Mexico and Texas—represent 23.7% of the country's population, and the population residing within the 100-km border region represents about 4.5%. According to PACENation, three of these states (California, New Mexico and Texas)

[8] All state PACE enabling legislations is available at: https://pacenation.org/pace-legislation/.
[9] Source: Kaatz, J. & Anders, S. (2014), Residential and Commercial Property Assessed Clean Energy (PACE) Financing in the California Rooftop Solar Challenge Areas, Center for Sustainable Energy.

have adopted PACE legislation, and seven counties within the border region have enacted local regulations for a PACE program (3 in California and 4 in Texas).[10] Although the State of New Mexico has enacted PACE enabling legislation, no county within the state has instituted the program. Table 1 presents a summary of the demographics of each border state, along with the availability of PACE programs within each one.

Table 1
PACE PROGRAMS IN THE BORDER REGION BY STATE*

State	State Population	State PACE Program**	# of Counties w/PACE Program within the 100-km region **	Population with access to PACE Program within the 100-km region
Arizona	7,278,717	No	0	0
California***	39,512,223	Yes	3	3,519,545
New Mexico	2,096,829	Yes	0	0
Texas	28,995,881	Yes	4	2,152,466
TOTAL	**77,883,650**		**7**	5,672,011

*Source: 2010 U.S. Census estimate for 2019.
**Source: PACENation www.pacenation.us/pace-programs/.
***Note: Since only a small portion of Riverside County is located within the border region, its population was not included in the population estimates for the 100-km area.

PACE programs started in California in 2008 with the approval of AB 811 and since then have spread to 37 other states, including Texas and New Mexico. Local PACE programs were adopted in New Mexico in 2009 and in Texas in 2013. Table 2 summarizes the demographics of the counties within the jurisdiction of NADB.[11]

Table 2
COUNTY DEMOGRAPHICS

County	State	Population	Main Economic Activity
Imperial	CA	181,215	30% retail sales; 27% wholesales activities
San Diego	CA	3,338,330	28% retail sales; 26% wholesales activities
Cameron	TX	423,163	49% retail sales; 23% health care and social assistance
El Paso	TX	839,238	56% manufacturer shipping; 27% retail sales
Hidalgo	TX	868,707	60% retail sales; 23% health care and social assistance
Willacy	TX	22,134	75% retail sales; 17% health care and social assistance

Source: 2010 U.S. Census estimate for 2019.

[10] Source: PACENation, an initiative of PACENow, a 501 (c) (3) non-profit advocate for PACE financing, established in 2008 (www.pacenation.us).
[11] While a small portion of Riverside County, CA is eligible under the Project, the demographics for that specific area are not included since there are no communities within the 100-km region.

The Project Sponsor will begin implementation of the proposed Project in the counties with active PACE programs as previously identified but estimates that up to 90% of their portfolio will be implemented in the San Diego County area. The Sponsor will target additional areas as local PACE programs are enacted. Other PACE programs currently under development are expected to be adopted throughout the life of the proposed Project.

Commercial PACE Program Profile

According to the International Energy Agency, buildings are the second largest energy consuming sector in the world, accounting for 32% of all energy consumption and an equally important source of carbon dioxide (CO_2) emissions.[12] Because much of the energy generation in the U.S. is supplied by burning fossil fuel, which results in greenhouse gases (GHG) and other harmful emissions, a reduction in energy demand also provides an environmental benefit through the associated reduction in harmful emissions.

Local governments can take a wide range of approaches to promote energy efficiency, both in their own operations and in their communities, by providing viable financing options for projects such as rooftop solar systems, equipment replacement, automation and other energy efficiency projects. PACE programs are an important mechanism in this endeavor as they authorize local governments to work with private-sector capital providers and property owners to finance qualified improvements using contractual assessments voluntarily imposed on the property by the owner.

PACE was named one of the top 20 "world-changing" ideas by *Scientific American* magazine in December 2009.[13] It helps achieve energy, environmental and GHG policy goals, as its programs are aimed at facilitating water conservation, energy efficiency and renewable energy improvements and retrofits, such as new heating and cooling systems, lighting improvements, solar panels, water pumps, low-flow fixtures and insulation, among others. The implementation of PACE programs has proven to be a successful initiative around the country, and significant effort has been made by local governments and the private sector to promote these programs.

Through commercial PACE programs, it is possible to finance up to 100% of the cost of the eligible works for a non-residential building, and this amount can be repaid over a period of up to 30 years through an assessment added to the property tax bill . PACE assessments stay with the building upon sale. While eligibility varies by state and county, almost any non-residential building that pays a property tax is eligible for commercial PACE financing, including offices, hotels, restaurants, shopping centers and other retail properties, non-profits, warehouses, garages, factories, etc. PACE enables property owners to overcome market barriers—such as short payback periods and lack of access to capital—that discourage investment in these types of projects.

In addition to the innovative financing structure offered by PACE, property owners will receive additional benefits from making PACE eligible investments, including cost savings related to reduced energy and/or water consumption or compliance with evolving building standards.

[12] Source: International Energy Agency (IEA). Energy comprises the consumption of electricity, fuels and other resources in relation to commercial and residential buildings. (https://www.iea.org/data-and-statistics/charts/final-energy-consumption-by-sector-in-the-oecd-1990-2017).
[13] Source: Scientific American, http://www.scientificamerican.com/article/world-changing-ideas/.

Building improvements may be identified independently by the property owner, with the help of the Project Sponsor, or through property-specific solicitations by service providers or vendors.

Currently, 37 states have passed or are developing PACE enabling legislation, which encompasses nearly 90% of the U.S. population. According to the 2019 market report of PACENation, since 2009, projects for more than 2,000 buildings with a total cost of more than US$1.5 billion have been financed through commercial PACE programs, demonstrating the success of the PACE program and an increased interest in accessing financing mechanisms such as the proposed Project. The PACE Facts Report calculates the impact of the PACE programs and estimates that approximately 7,929 gigawatt-hours (GWh) have been saved through the implementation of Commercial PACE projects since its creation, which is equivalent to more than 2,850,000 metric tons of CO_2 avoided.[14]

PACE programs for commercial properties show great promise throughout the United States. The Department of Energy and the National Renewable Energy Laboratory (NREL) have performed studies on the progress and challenges of the PACE program across the country. They indicate that the most important challenge is access to affordable, long-term financing to implement projects.[15] NADB participation in PACE is expected to provide accessible, long-term financing for subprojects in the border region that will unlock energy and water efficiency opportunities for potential participants that would otherwise not qualify or be able to afford the necessary improvements to their properties. The proposed NADB loan is structured to provide a fair market rate at the origination stage of the process, which will allow the financial benefits to accrue to program users at the subproject level. In addition, by presenting credible results and socializing the benefits of the PACE program, NADB will demonstrate that these types of projects are robust financial transactions suitable for long-term commercial lending and thus help pave the way for additional financing sources in the future.

Over the past few years, the Bank has been in contact with representatives of several PACE program promoters in the border region and received its first certification and financing application for a PACE program in 2016. The Border-wide Financing Program to Improve Water and Energy Efficiency in the United States sponsored by CleanFund Commercial PACE Capital, Inc. was approved by the Board in September 2016, along with a loan for up to US$50 million. [16] It is worth noting that the business strategy of the CleanFund PACE program was to target smaller, retrofit projects and did not include new construction. As resiliency improvements are typically implemented during new construction, the previous program did not include financing components for resiliency. Considering Petros' experience, current pipeline and a business

[14] Source: PACENation, PACE Facts Report https://pacenation.org/wp-content/uploads/2020/04/PACE-Facts-4-24-20.pdf.
[15] Source: U.S. Department of Energy, Clean Energy Finance Guide, Chapter 12. Commercial Property-Assessed Clean Energy (PACE) Financing, third edition update, March 2013, (http://energy.gov/sites/prod/files/2014/06/f16/ch12_commercial_pace_all.pdf).
NREL, Energy Analysis, Fact Sheet Series on Financing Renewable Energy Projects, Property-Assessed Clean Energy (PACE), Financing of Renewables and Efficiency, (http://www.nrel.gov/docs/fy10osti/47097.pdf).
[16] Although a US$25-million loan agreement was signed in June 2017, no funds were disbursed, and the sponsor changed the program structure. NADB determined that the terms and conditions of the loan could not be met and terminated the financing commitment in December 2019.

strategy that targets both retrofits and new construction, the proposed Petros PACE Project includes both of those components.

3.1.2. Project Scope

The proposed Project consists of providing financing to promote qualified energy efficiency, renewable energy, water conservation and resiliency improvements in non-residential properties, such as commercial, industrial, mixed-use and agricultural facilities, through available local PACE programs. A qualified improvement is defined as a permanent improvement fixed to real estate property and intended to decrease water or energy consumption or demand, including a product, device or interacting group of products or devices on the customer's side of the meter that uses technology to generate electricity, provide thermal energy, regulate temperature or save water such as: insulation, renewable energy, lighting, refrigeration, heating, ventilation and air conditioning (HVAC), low-flow fixtures and rainwater capture, among others. Additionally, seismic strengthening and wildfire hardening projects are eligible under PACE programs in California. A more detailed list of components that will be considered eligible for PACE funding under the proposed Project is provided in Table 3.

Table 3
ELIGIBLE IMPROVEMENTS UNDER THE PETROS PACE PROGRAM

Energy Efficiency	
	Lower utility and maintenance expenses while reducing carbon footprints, with building improvements that reduce energy consumption by replacing existing equipment or considering more efficient components for new construction. Eligible measures include, but are not limited to: • HVAC systems • Boilers & chillers • Building automation & control systems • LED lighting • Building envelope, including insulation, windows, doors & roofing • Motors & drives

Renewable Energy

Improve performance and sustainability by installing renewable energy systems. Eligible measures include, but are not limited to, on-site energy generation using the following technologies:

- Solar/solar thermal
- Fuel cells
- Cogeneration
- Geothermal
- Wind

Water Conservation

Curb water usage by upgrading plumbing, irrigation and other systems with more water-efficient equipment or by implementing water conservation initiatives for the use of alternative water sources. Eligible measures include, but are not limited to:

- Low-flow plumbing fixtures
- Irrigation sensors/controls
- Greywater/wastewater recovery
- Water-efficient appliances (permanently affixed)
- Rainwater harvesting

Resiliency

Improve building resiliency to natural disasters. C-PACE financing may be used for seismic upgrades and wildfire-hardening in California and Oregon, and wind-hardening upgrades are currently eligible in Florida but may be eligible in other places in the future.

- Seismic resistance
- Wildfire hardening
- Wind hardening
- Microgrids

Source: Petros PACE Administrator Program, Basic Eeligibility Criteria.

PACE financing is a voluntary, land-secured funding mechanism for energy efficiency, renewable energy and water conservation upgrades to buildings. The Project Sponsor has a well-established financing program and handbook that outlines the PACE financing process from beginning to end,

including the initial and final PACE application and all related technical elements, which are described in detail in Section 3.1.3 of this proposal. The public-private partnership between the Sponsor, its vendors and local governments helps provide a strong foundation for the implementation of the proposed Project.

Property owners seeking financing must meet the following requirements to be eligible for NADB funding:

- Subprojects must be implemented on either new construction or existing properties within the 100-km border region in the United States.
- The cost of eligible subprojects cannot exceed 25% of the assessed value of the existing property or new construction.
- Credit is extended to building owners only; and
- Financing terms may range from 10 to 30 years.

The funding request is based on Petros' experience and discussions with its current clients and partners. The Sponsor estimates that 50% to 80% of the funds will be used for energy efficiency, 10% for renewable energy, 10% for water conservation and 10% to 30% for resiliency. PACENation reports that 49% of completed commercial projects are energy efficiency, 23% are renewable energy, 7% resiliency and the remaining 22% may include any combination of the eligible types.[17]

3.1.3. Technical Feasibility

Petros provides financial and advisory services to its customers in partnership with consulting firms and equipment vendors. A description of the process of a subproject and its technical feasibility review is provided below:

- *Application*. The process of obtaining financing under the program starts when a property owner fills out an application for financing.

- *Screening*. Once an application is received, representatives of Petros will work with the property owner and/or its representatives to collect several items necessary to verify eligibility. As part of this verification process, an energy audit, seismic risk assessment, windstorm risk assessment and/or such other assessment(s) as applicable are developed by a third party to determine the eligibility of the subproject. An environmental review is also conducted as described in Section 3.2.2 of this proposal. Once Petros has received, reviewed, and approved all the items, it will issue a term sheet outlining the terms under which the program financing will be offered, as well as other conditions precedent to closing. The property owner may elect to sign the term sheet and proceed with underwriting, negotiate the items in the term sheet or decline to participate in the program.

[17] Source: PACENation, https://pacenation.org/pace-market-data/.

- *Underwriting*. Once a property owner has signed the term sheet, Petros will complete any outstanding due-diligence tasks necessary to receive final approval for financing by the Administrator. During the underwriting process, Petros reserves the right to amend the term sheet to address additional information and resolve any issues that may be uncovered during the due-diligence process.

- *Documentation*. Once Petros approves the financing, its legal counsel will draft the various legal documents that will evidence the financing structure and terms. Petros may retain external legal counsel as well. Counsel for Petros will work with the property owner (or, to the extent that the property owner is represented by counsel, the attorneys of the property owner) to tailor the documents to fit the specific transaction.

- *Closing*. Upon finalizing the financing documents, Petros will arrange for the relevant assessment contracts to be recorded in the land records where the property is located. Upon confirmation that the assessment contracts have been recorded, Petros will wire funds into an escrow account controlled by Petros or its trustee.

- *Post-closing*. After paying all fees, costs of issuance and capitalized interest, any remaining funds will be made available to the property owner. To request disbursements from Petros, the property owner must have incurred expenses directly related to the eligible subprojects and must submit documentation and evidence as required by Petros. Upon receipt of such disbursement documentation, Petros will wire the requested funds to the property owner (or its contractor) within 3-4 business days. Petros may require an agreed-upon draw schedule, with specific milestones, as a condition of participating in the program. Once the installation of the subprojects is complete, the property owner must submit a completion certificate as specified by Petros.

The subprojects that will be financed by NADB will be selected by the Sponsor based on a pre-agreed framework that includes a description of the components eligible for NADB financing. The subprojects will be selected once the screening process described above has been completed.

NADB will require that the Sponsor provide baseline information regarding the anticipated subproject outputs (i.e., kilowatt-hours consumed, gallons of water consumed, etc.), which are required to measure the estimated environmental benefits resulting from each subproject and the Project as a whole.

The Petros PACE program is compatible and in compliance with NADB certification criteria as illustrated by a review of its conditions and requirements in California and Texas where the PACE programs have been operating. NADB will review each proposed subproject to confirm its eligibility and compliance with all PACE regulations and NADB certification criteria. NADB will verify compliance prior to funding of any subproject.

3.1.4. Land Acquisition and Right-of-Way Requirements

Property owners requesting financing through the PACE financing program will be required to demonstrate ownership of the property where new construction or improvements are to be made by providing appropriate documentation to the Sponsor.

3.1.5. Project Milestones

Due to the nature of the proposed Project, there are no pending milestones to be completed to initiate the PACE funding program. On a case-by-case basis, the Sponsor will be required to evaluate the potential property owner for compatibility with the program characteristics.

NADB procurement policies require that private-sector borrowers use appropriate procurement methods to ensure a sound selection of goods, works and services at fair market prices and that their capital investments are made in a cost-effective manner. As part of its due-diligence process, NADB will review compliance with this policy.

3.1.6. Management and Operation

PACE programs can be managed by both public entities (City, County and/or State departments) and by third-party organizations such as Petros PACE. For example, in Texas there are two approved PACE Programs, one is managed by the Texas PACE Authority and the other is managed by Loan Star PACE, a third-party administrator. Petros administers C-PACE projects in California through the California Statewide Communities Development Authority.

The operation of the subprojects will be carried out by local personnel hired by the property owners.

3.2. Environmental Criteria

3.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

The United States depends to a great extent on fossil fuels for power generation, which can affect the natural environment due to the greenhouse gases (GHG) and other harmful emissions produced during the generation process. Buildings, including both commercial and residential, are the third largest energy-consuming sector in the U.S., accounting for 28% of the energy usage, after the transportation sector (37%) and the industrial sector (35%).[18] According to the Annual Energy Outlook developed by the U.S. Energy Information Administration, energy consumption in

[18] Source: Energy Information Agency, U.S. energy consumption by source and sector, 2019. Energy includes the consumption of electricity, fuels and other resources in relation to commercial and residential buildings. (https://www.eia.gov/totalenergy/data/monthly/pdf/flow/css_2019_energy.pdf).

the U.S. building sector is expected to increase gradually from 2019 to 2050, based in part on current efficiency standards and incentives. Consequently, if current efficiency standards and incentives are not implemented, energy consumption in the building sector will increase faster.[19]

In the U.S., more than US$400 billion is spent each year to power homes and commercial buildings, consuming approximately 74% of all electricity used in the country and representing about 40% of the country's total energy bill. Much of this energy—over 30% on average—is wasted by low efficiency equipment or fixtures.[20]

Energy efficiency is a low-cost way to reduce energy consumption, support job growth, reduce pollution, and improve the sustainability and competitiveness of businesses. Beginning with the Energy Policy and Conservation Act of 1975, the U.S. Congress has passed a series of statutes establishing minimum energy conservation standards for consumer products and commercial and industrial equipment. Regulated products represent about 90% of home energy use, 60% of commercial building energy use and 29% of industrial energy use. The Building Technologies Office (BTO) of the Department of Energy has implemented minimum energy conservation standards for more than 60 categories of appliances and equipment. As a result of these standards, American consumers saved US$63.0 billion on their utility bills in 2015.[21] Since 2009, 34 new or updated standards have been issued, which will help increase annual savings by nearly 75% over the next decade. If a reduction of 20% in energy use in U.S. buildings is achieved, the BTO estimates that approximately US$80 billion could be saved annually on energy bills.[22] By 2030, cumulative operating cost savings from all standards in effect since 1987 will reach nearly US$1.9 trillion, with a cumulative reduction of about 7 billion tons of carbon dioxide emissions, equivalent to the annual greenhouse gas emissions of 1.5 billion automobiles.[23]

The U.S. population has doubled over the past 50 years, while water usage in the country has tripled during the same period.[24] Despite the water supply and infrastructure challenges faced by many communities across the U.S., Americans use an average of 88 gallons of water a day per person at home.[25] Water managers in at least 40 states expect local, statewide or regional water shortages to occur over the next several years. The United States Geological Services (USGS) estimates that buildings accounted for 9% of the water used in the country in 2015.

Water conservation helps preserve natural resources and habitats, prevents potential water shortages and reduces the cost of water production for utilities and consumers. The U.S. Environmental Protection Agency (EPA) runs a program called WaterSense, which partners with manufacturers, retailers and distributors, homebuilders, irrigation professionals, and utilities to

[19] Source: Energy Information Agency, Annual Energy Outlook 2020, https://www.eia.gov/outlooks/aeo/pdf/AEO2020%20Full%20Report.pdf.
[20] Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, https://www.energy.gov/eere/buildings/about-building-technologies-office.
[21] Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office. https://www.energy.gov/eere/buildings/appliance-and-equipment-standards-program
[22] Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, https://www.energy.gov/eere/buildings/about-building-technologies-office.
[23] Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, http://energy.gov/eere/buildings/appliance-and-equipment-standards-program.
[24] Source: EPA, https://www.epa.gov/greeningepa/water-conservation-epa.
[25] Source: EPA, https://www.epa.gov/watersense/statistics-and-facts

implement water conservation measures by promoting a nationwide ethic of water efficiency to conserve water resources for future generations and reduce water and wastewater infrastructure costs. Since its implementation in 2006, EPA estimates cumulative savings of 3.4 trillion gallons of water and more than US$84.2 billion in water and energy bills.[26]

The Texas PACE Authority reports that since the adoption of the PACE program in the state, a total of 66,391 megawatt-hours (MWh) have been saved, which, according to the Texas PACE Authority, is equivalent to a reduction of 38 tons of SO_2, 19 tons of NOx and 42,572 tons of CO_2. Additionally, 67 million gallons of water have been saved.[27]

Additionally, PACE-funded projects help create jobs and increase economic activity. Based on a study developed by ECONorthwest, every US$1.0 million in energy efficiency project spending results in 15 new jobs and US$2.5 million in economic output. According to PACENation, more than US$1,538 million has been invested in 2,400 commercial PACE projects throughout the U.S., which have created more than 17,800 jobs.[28] PACE projects also increase property value, and cost savings generated by sustainable projects can be shared by landlord and tenant alike.

B. Project Impacts

Improving energy efficiency, water conservation and the resiliency of infrastructure are some of the most constructive and cost-effective ways of addressing the challenges posed by high energy prices, energy security and independence, air pollution and global climate change. The design and construction of a sustainable building is mainly related to resiliency elements, efficient water and energy consumption measures, air quality controls, usage of more sustainable materials and the reduction of waste and hazardous substances. PACE eligible subprojects are in line with these sustainable building practices.

The Project is expected to generate environmental and human health benefits related to the implementation of renewable energy, energy efficiency, water conservation and resiliency subprojects. By utilizing NADB PACE financing, property owners could generate the following benefits:[29]

- *Environmental and Health*: Increased energy efficiency and the use of renewable energy can improve air quality by reducing the emission of GHG and other pollutants.[30] Similarly, more efficient use of water would conserve this vital liquid in a semi-arid region prone to droughts and water shortages. Additionally, seismic strengthening and fire hardening increase infrastructure sustainability and would protect the population from potential injury and death from collapsed buildings during natural disasters.

[26] Source: EPA, https://www.epa.gov/watersense/accomplishments-and-history.
[27] Source: Texas PACE Authority, https://pace.harcresearch.org/.
[28] Source: PACENation, https://pacenation.org/pace-market-data/.
[29] Source: EPA, http://www3.epa.gov/statelocalclimate/local/topics/energyefficiency.html.
[30] Source: Department of Engineering and Applied Sciences of the University of Bergamo, Italy, https://www.academia.edu/19305227/Does_seismic_risk_affect_the_environmental_impact_of_existing_buildings.

- *Economic*: Installing distributed generation facilities, improving energy efficiency, reducing water usage and reinforcing structures cost significantly less than investing in new power generation and water supply facilities or the removal and reconstruction of collapsed infrastructure. Energy efficiency and water conservation measures also lower utility bills and can boost the local economy by improving the value of the underlying real estate. Moreover, the installation and maintenance of these types of projects creates local jobs.

- *Utility System Benefits*: When integrated into energy resource plans, energy efficiency can provide long-term benefits by lowering baseload and peak demand and reducing the need for additional generation and transmission assets. Local water utilities also benefit from water conservation measures since they reduce the need for additional supply sources or infrastructure. Energy efficiency, renewable energy, water conservation and resiliency subprojects also diversify utility resource portfolios and can be a hedge against the uncertainty associated with fluctuating fuel prices and other risk factors.

The environmental and human health benefits generated by the implementation of NADB-funded subprojects will be measured using the following indicators:

- Renewable energy and energy efficiency subprojects:
  - Renewable energy generation capacity (kilowatts)
  - Energy generation/savings (kilowatt-hours).
  - Emission displacement per year based on the quantity of energy generation/savings.[31]

- Water conservation subprojects:
  - Quantity of water saved (gallons of water/year).

- Resiliency subprojects:
  - Buildings with enhanced resiliency (square meters).

Benefits from improvements to existing installations will be measured by comparing current energy and water consumption to the expected outputs in the metering of these services. In the case of new construction, the benefits will be measured by comparing the expected water and energy consumption of the new building to the baseline consumption of a similar building without

[31] Emission displacement will be calculated when specific information on the subprojects to be implemented is available. According to the U.S. Energy Information Administration, the emission factors for California are: 0.22291 metric tons/megawatt-hour (MWh) for CO_2; 0.00036 metric tons/MWh for NOx and 0.0 metric tons/MWh for SO_2. The emission factors for Arizona are: 0.41723 metric tons/megawatt-hour (MWh) for CO_2; 0.00032 metric tons/MWh for NOx and 0.00047 metric tons/MWh for SO_2. The emission factors for New Mexico are: 0.56387 metric tons/megawatt-hour (MWh) for CO_2; 0.0005 metric tons/MWh for NOx and 0.00009 metric tons/MWh for SO_2. The emission factors for Texas are: 0.48124 metric tons/megawatt-hour (MWh) for CO_2; 0.00036 metric tons/MWh for NOx and 0.00041 metric tons/MWh for SO_2.

efficiency components. Seismic strengthening and fire hardening benefits will be measured by the total amount of square feet of building retrofitted or hardened. The specific results measurement targets (baseline and expected results) for each subproject will be estimated during the screening process and verified upon implementation. Petros has agreed to partner with NADB on sharing information on the monitoring of the environmental results of each subproject. This information will also be provided to the Board

The Project is also expected to generate permanent and temporary jobs in the border region, from manufacturing the equipment to operating and maintaining the upgrades. Based on the results extrapolated from the ECONorthwest study mentioned above, it is estimated that the investment of up to US$80.0 million dollars in Project funding will result in approximately 1,200 positions and approximately US$200 million in economic output.

C. Transboundary Impacts

No transboundary impacts are anticipated as a result of the development of the Project.

3.2.2. Compliance with Applicable Environmental Laws and Regulations

A. Environmental Clearance

All subprojects are subject to applicable local, state and federal laws and regulations. Development in energy efficiency and water conservation technology has evolved over the last 20 years in response to the ever-increasing cost of energy and water services, along with increasingly stricter regulations. Compliance with all permits will be verified prior to first disbursement.

Updated and/or new building and construction codes are expected to support many of the efficiency projects associated with the PACE program. For example, the California Building Energy Efficiency Standards (Title 24) requires improvements to the energy footprint of a building whenever upgrades are performed by the owner.

Waste disposal regulations will also be applied to subprojects in accordance with state and local laws.

As part of the Petros screening process described in Section 3.1.1., all PACE subprojects requesting financing are subject to environmental screening. The process developed by Petros is detailed below:

1. An Environmental Risk Rating (ERR) from the Environmental Data Resources (EDR) platform is reviewed to determine the environmental risk of the subproject property.[32] If the subproject location falls into the Low Risk category, no further action or

[32] EDR is a web-based platform that gives stakeholders across the real estate industry access to over 1,800 databases and the largest collection of historical property use information in the country. The ERR is a report that helps determine the environmental risk associated with a property, which is defined as “low” or “elevated,” based on official information, data on incidents, permits and historical records.

environmental clearance is required. A property is considered Low Risk when there is no documented or known environmental contamination from past operations or surrounding properties that could represent an environmental liability or use concern for the current property owner.

2. For PACE projects that are under US$10 million and not considered to be a Large Quantity Generator (LQG) of hazardous waste, an ERR report with no open incidents is required.[33]
3. For all other projects in the Elevated Risk category—over $10 million, LGQs or with open incidents—a Phase 1 Environmental Report is required within the last 12 months and/or post-dating any incidents, which indicates no ongoing remediation is required aside from administrative steps.

B. Mitigation Measures

Mitigation measures will be implemented on a case-by-case basis for any temporary emissions generated during the construction or implementation of the subprojects, in accordance with local regulations.

Older equipment replaced by the new technology will require proper disposal in accordance with local regulation and construction permits and will be the responsibility of the property owner.

C. Pending Environmental Tasks and Authorizations

There are no pending environmental authorizations for the Project.

3.3. Financial Criteria

The Project Sponsor has requested a loan for up to US$80.0 million from NADB to finance eligible improvements under local commercial PACE programs. The total estimated cost of the project is US$320.0 million. The proposed payment mechanism is well known and widely used by the financial sector in the United States. The source of payment will be through a property assessment or tax lien collected by the local government at the request of the respective property owners and backed by their corresponding property taxes.

NADB performed an analysis of Petros and its policies related to transaction structuring, which included its financial analysis process, repayment mechanism and assessment origination. The main risks were also identified, and mitigating mechanisms were recognized.

In addition, NADB has verified that Petros has the legal authority to contract this loan and transfer its collection rights to NADB to serve as the source of payment for the proposed loan. NADB also confirmed that the property assessment could be endorsed to NADB.

[33] According to EPA, a LQG is a business or facility that generates more than 2,200 lbs. (1,000 kg) of hazardous waste or more than 2.2 lbs. (1 kg) of acute hazardous waste per calendar month.

Considering the Project's characteristics and based on the financial and risk analyses performed by NADB, the proposed Project is considered to be financially feasible and presents an acceptable level of risk. Therefore, NADB proposes providing a market-rate loan for up to US$80.0 million to Petros PACE Border Fund, LLC to finance the PACE program described herein.

4. PUBLIC ACCESS TO INFORMATION

4.1. Public Consultation

NADB published the draft certification and financing proposal for a 30-day public comment period beginning on July 7, 2020.

4.2. Outreach Activities

To implement PACE programs, a State needs to establish laws enabling local governments to create special assessment districts that recognize energy efficiency, renewable energy, water conservation and resiliency improvements as a "public good" that is eligible for reimbursement through the property tax system. Next, interested communities must pass ordinances creating assessment zones and authorizing lien creation and project financing. Finally, the locality has to establish administrative and funding processes. The legislative process to approve PACE enabling legislation includes an extensive outreach process promoted by the State. Local PACE programs are also approved and implemented through a public process.

Reference materials such as guidelines, presentations, market analyses and policy documents have been made available to the public by government agencies and well-known organizations—such as the U.S. Department of Energy, NREL, the American Council for an Energy Efficient Economy (ACEEE), PACENation and Sierra Club—on their websites and through workshops and webinars.

NADB conducted a media search to identify public opinion about PACE programs and several articles were found. The media articles described the current status and availability of PACE programs in the country (including the border region), lessons learned and ways to improve the program. Overall, most comments were positive and described the potential of this type of program to address goals to reduce GHG emissions and promote sustainable development. Some of the articles found are presented below:

- *PACENation* (May 5, 2020) – "*PACENation Expands Board Leadership Amid Record Growth for Commercial PACE Programs Nationwide*" (*https://pacenation.org/pacenation-expands-board-leadership-amid-record-growth-for-commercial-pace-programs-nationwide/*)

- *PACENation* (December 21, 2018) – "*Petros PACE Finance Closes $24.9 Million C-PACE Financing in Omaha, Nebraska*"

(https://pacenation.org/petros-pace-finance-closes-24-9-million-c-pace-financing-in-omaha-nebraska/)

- *Texas PACE Authority Publications* (September 23, 2019) – "*CASE STUDY Plaza Hotel Pioneer Park in El Paso, TX*." *(https://www.texaspaceauthority.org/wp-content/uploads/CS_Plaza-Hotel-El-Paso-2019-09-23.pdf)*

Petros' activities have also been covered by the media. Some of the articles found described the investments it has made and the projects it has completed. In addition, information about Petros is available on its webpage at: https://www.petros-pace.com/.

Based on the information reviewed, including public comments and new articles, no opposition was detected for the implementation of a PACE program.

The Project Sponsor has demonstrated its willingness to contribute to the public outreach process, and the fulfillment of the 30-day public comment requirement.