



**UPDATED UNDERWRITING STANDARDS
FROM THE UNDERWRITING WORKING GROUP REGARDING
PACE IN A BOX**
February 14, 2025

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COVER NOTES:

All previous Underwriting Working Group Additional Guidance still in effect is included in this document for the purpose of incorporating all current Underwriting Standards in a single document published in the Keeping PACE in Texas Document Library, <https://www.keepingpaceintexas.org/library/document-library>

CONTEXT

To expedite the establishment of local PACE programs in Texas and to facilitate an orderly, consistent, statewide approach to PACE design and implementation, in 2013 [Keeping PACE in Texas](#) (KPT) organized a broad-based coalition of over 130 PACE stakeholders (the “Texas PACE Coalition”) to collaborate in developing a toolkit for local governments to use in creating their PACE programs. For over a year, these volunteers worked in five working groups to establish the *PACE in a Box* model program to assist local governments in establishing a program of best practices in administration, underwriting and technical standards that are uniform, user friendly, sustainable, and scalable.

The volunteers in the *PACE in a Box* Collaboration foresaw the need for a regular feedback and improvement process to prevent the documentation from becoming obsolete. Section III, INTRODUCTION TO PACE IN TEXAS, Phases of Program Development of the [PACE in a Box model program](#) states, “*PACE in a Box* programs are encouraged to work together to establish self-evaluation protocols, to keep up with developing national best practices standards, and to incorporate improvements in a regular evaluation and improvement system.”

This document is the result of the Underwriting Working Group’s 2024-2025 Feedback and Improvement process. The 2024-2025 feedback and improvement process results in significant changes that are intended to be read as a whole. PACE Program Authorized Representatives should communicate the updates to each local government and each local government is encouraged to make changes to its PACE Program report that are necessary to adopt the 2024 guidance, including its guardrails, in its entirety.

TX-PACE Financing is a proven model for Texas. Over the past decade, the program was adopted by more than 100 local governments. Expanded use by businesses and nonprofits, the need to maintain user friendly, uniform, scalable and sustainable standards are more important than ever.

The Underwriting Working Group recommends updating several key underwriting requirements to reflect the program’s experience and success in Texas as well as norms that have evolved in commercial PACE programs throughout the United States. The Working Group also finetuned guardrails to ensure that the program’s protections for local governments, senior lenders, and property owners are ensured. Most importantly, the guidance ensures that TX-PACE financing promotes and delivers energy and water savings, consistent with the statutory intent.

These February 14, 2025 Underwriting Standards make several improvements:

LTV: The recommended Loan to Assessed Value Ratio (LTAV) is increased to 35% and the corresponding variance cap of the appraised LTV is increased to 35%;

SIR: The SIR cost calculation no longer includes the cost of financing and the SIR variance language is removed; and

Principal: Standards are established for the length of time that capitalized interest or interest only payments.

This document incorporates the 2025 updates into the preexisting feedback and improvement process guidance so that all current information is contained in this document. Earlier iterations that have been superseded by the information in this document are retired and retained in the KPT Document Library

Archives for historical purposes.

The Technical Standards Manual Version 3.2 and the PACE ITPR Workbook v3.3 have been modified to incorporate the updated Underwriting Standards. All can be found on the [Keeping PACE in Texas Document Library](#).

The Keeping PACE in Texas Board gratefully appreciates the leadership of Steve Wiese, chair of the Underwriting Working Group and thanks each of the 50 volunteers in 2024-2025 for their work to update the underwriting best practices below. The Board also extends its gratitude to the founding chair of the Underwriting Working Group, Steve Minick, for 10 years of volunteer service.

ESTABLISHING INTENT TO REDUCE WATER OR ENERGY CONSUMPTION OR DEMAND AND ESTABLISHING APPROPRIATE TIME FRAMES FOR REFINANCING QUALIFIED MEASURES

Effective Date: [September 1, 2022](#)

Purpose: To clarify how statutorily required “intent” can be established when using PACE to refinance qualified measures and to clarify the appropriate dates for refinancing previously installed qualified measures

In this 2022 Guidance, the Underwriting Working Group recommends that the design of a qualified project is treated as evidence that a qualified measure is “**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 energy technology to generate electricity, provide thermal energy, or regulate temperature” as required under Chapter 399.102(3). The required project design may be submitted as drawings, plans, or equipment specifications. The PACE qualified measures must be listed and identified with the corresponding page numbers of the design submission on which information about the qualified measures appears.

Refinancing of PACE projects can occur up to 24 months after the date on which the last qualified measure was installed, provided all other PACE in a Box underwriting and technical standards are satisfied. The Savings to Investment Ratio (SIR) is calculated from the beginning of the refinancing. The life of equipment calculation for all qualified measures should be measured from the date on which the last qualified measure was installed.

REGARDING THE SCOPE OF THE PROHIBITION ON THE USE OF A PACE ASSESSMENT ON “UNDEVELOPED LOTS OR LOTS UNDERGOING DEVELOPMENT” UNDER CHAPTER 399 OF THE LOCAL GOVERNMENT CODE

Effective date: [September 1, 2022](#)

Purpose: To clarify that when an Appraisal District determines that the property is “improved” under the property tax code, that property is developed.

This recommended additional guidance replaces the previous guidance to further clarify and simplify the scope of the prohibition of PACE assessments on undeveloped lots or lots undergoing development.

Since 2017, the Underwriting Working Group has struggled to interpret the prohibition on using PACE financing in section 399.004(b)(1), which states: "An assessment may not be imposed to repay the financing for facilities for undeveloped lots or lots undergoing development at the time of the assessment..." Guidance established in 2017 and updated in 2020 laid out a standard for ensuring property was developed to be eligible for PACE financing. The Underwriting Working Group seeks to ensure that PACE assessments are clearly within the statutory framework, so the lien is enforceable if challenged. The guidance has proved burdensome for property owners, lenders, and program administrators.

When the meaning of a previously adopted statute is unclear, statutory construction principles dictate that in the absence of more specific or current language, it is appropriate to look to related statutes for guidance. The Texas PACE Act refers to and relies upon provisions in the Tax Code.

The Underwriting Working Group identified the definition of “improvement” as real property in the Texas Tax Code Section 1.04(3)(A) and (B) to be appropriate guidance for determining whether a property is “developed” and eligible for financing under the Texas PACE Act. Under the Tax Code, the Appraisal District in each county identifies taxable real property, including any “improvement” as defined by the tax code and determines the taxable value of real property.

This guidance recommends that property on which an improvement has been recognized by the Appraisal District in accordance with Section 1.04(3) of the Tax Code be considered developed property under the PACE Act and therefore not prohibited by Chapter 399.004(b)(1). Such determination may rely on Appraisal District documentation from prior years. Property on which no improvement is or was acknowledged by an Appraisal District is an undeveloped lot or lot undergoing development on which PACE financing may not be imposed under the Texas PACE Act Chapter 399.004(b)(1). Property Owners can qualify undeveloped property as eligible for a PACE assessment by adding an improvement to the property that is or will be recognized by the Appraisal District.

Appraisal Districts update property records annually. Written recognition from an Appraisal District that a property has been improved with confirmation that it intends to update a property’s records on the next annual update serves as evidence that the property is developed and not subject to Chapter 300.004(b)(1).

APPROPRIATE LOAN TO ASSESSED VALUE RATIO (LTAV)

Effective date: **February 14, 2025**

Purpose: to authorize an increase in the appropriate PACE loan to assessed value from 25% to 35% and to increase the variance cap of an appraised loan to value (LTV) at 35%.

1. Set the standard LTAV at no more than 35%.
2. Authorize the administrator, at its discretion and in response to a request for variance, to waive the standard LTAV and approve a variance not to exceed 35% of the appraisal value of the property (LTV) when justified by considering the following factors:
 - a. The existing debt to assessed value of the property prior to closing the PACE loan;
 - b. A comparison of the current property tax assessed value of the property to its “as is” appraisal value, as determined in section 3 below; and
 - c. The estimated post-renovation appraisal value of the property, as determined in section 3 below.
3. The appraisal process must be segregated from the loan origination process. Industry specialization is highly recommended. The appraiser should have relevant experience in the subject building types/market sector.
 - a. Appraisals should not be dated older than 18 months from the date of closing. The administrator and parties must take into account case-by-case considerations.
 - b. Appraisal requirements vary according to the size of the PACE project. For financing –
 - i. Above \$500,000: the appraisal must be prepared by a Texas certified general appraiser licensed by the Texas Appraiser Licensing and Certification Board, <https://www.talcb.texas.gov>.
 - ii. Below \$500,000: Evaluation consistent with the FDIC Financial Institution Letter, FIL-16-2016, <https://www.fdic.gov/news/financial-institution-letters/2016/fil16016.pdf> as amended by <https://www.fdic.gov/news/financial-institution-letters/2018/fil18014.html>.

SAVINGS TO INVESTMENT RATIO CALCULATIONS

Effective date: **February 14, 2025**

Purpose: **To provide additional underwriting standards on calculating savings and costs (see also the Technical Standards Manual)**

Background

Consumer protection is a primary element in legislative construction and precedent at the state level in both the State Energy Conservation Office (SECO) and the Public Utility Commission of Texas (PUCT). The PACE Act delegates to the local government most of the details for PACE program success and does not specifically set a Savings to Investment Ratio (SIR). Sec. 399.009(a)(8) requires that the period of the assessment must not exceed the useful life of the project. Sec. 399.009(b) requires a method of assessing the owner's financial ability to pay the assessment including requiring the local government to set "an appropriate ratio of the amount of the assessment to the assessed value of the property." Under Sec. 300.011(a), each qualified project must be given an independent third-party review of "water or energy baseline conditions and the projected water or energy savings," and under Sec. 399.011(b) the local government must require verification that the project was properly completed and operating as intended.

The Underwriting Working Group established uniform underwriting standards that would respect the statute and protect local governments. Key to this policy is the expectation that the long-term energy or water savings of a project will equal or exceed the financing cost of the improvements based on a SIR greater than 1 (SIR>1). The SIR, based on best practices in other states and on the successful Texas LoanSTAR Program¹, is designed to provide confidence in PACE project success for local governments, property owners, mortgage lenders, and PACE capital providers. Relaxing the standard makes program expansion by local governments more challenging because it increases concern regarding risk of project failure. This was especially true in the early stages of TX-PACE adoption throughout the state.

PACE in a Box, section 6, Guide to Project Underwriting and Technical Standards, pp 34 – 35 states:

Savings to Investment Ratio

PACE assessments create incentives for new investment and allow property owners to achieve energy and water savings above historical usage. The Savings to Investment Ratio (SIR) is the ratio of anticipated monetary utility savings to a participating property owner compared to the total cost invested in the property conservation improvements. The SIR is expressed as the estimated savings over the life of the assessment (discounted back to present value using an appropriate discount rate) divided by the amount financed through the voluntary PACE assessment. As an underwriting standard, a positive SIR will provide a lender greater assurance that a participating owner/borrower will realize a positive cash flow under the terms of the project and can service the debt at presumably no net cost or impact to normal cash flow from operations.

The responsibility for achieving the projected savings lies with the property owner. One method owners may use in evaluating improvement measures is to calculate and compare the SIR for each conservation measure. To ensure a SIR > 1 over the life of the assessment, the PACE program and project participants may:

¹ The Texas LoanSTAR (Saving Taxes and Resources) Revolving Loan Program provides low-interest loans to assist Texas public institutions by financing their energy-related, cost-reduction retrofit projects. Administered in the Comptroller's Office by the State Energy Conservation Office since 1989, this program has provided over \$600 million in financing with a zero default rate. <https://comptroller.texas.gov/programs/seco/funding/012717>.

- Use energy auditing and modeling to identify measures that will yield a SIR > 1;
- Calculate SIR based on an entire project rather than on each individual measure; and
- Incorporate normal elements of generally accepted business calculations, such as depreciation and reasonable projections of changes in utility prices.

General Rule - To be eligible for PACE financing, the projected savings derived from the improvement must be greater than the cost of the PACE assessment over the life of the assessment (i.e., the SIR should be greater than one, SIR>1). For a decade, PACE in a Box included the cost of financing in the SIR cost calculation to ensure that the SIR results in positive cash flow over the life of the assessment. However, the 2024 Underwriting Working Group’s Feedback and Improvement Process acknowledged that removing interest cost from the TX-PACE SIR cost calculation brings the PACE in a Box model program in line with the Public Utility Commission of Texas’ (PUCT) SIR requirements for utility incentives and the State Energy Conservation Office’s (SECO) LoanSTAR Revolving Loan Fund SIR requirements. The Working Group recommends aligning the TX-PACE SIR with the State’s LoanSTAR and PUCT SIR requirements for energy efficiency. This change will enable the TX-PACE program to facilitate greater energy and water saving investments throughout Texas in a manner more consistent with the methodology used by these SECO and PUCT programs.

No SIR Variance – The original guidance on SIR variances provided five factors that were intended to be considered together by the PACE Administrator, with variances granted rarely. Some stakeholders noted that the existing guidance on requesting and approving an SIR variance was being applied differently by different PACE Administrators.

Given related changes considered by the 2024 Underwriting Working Group’s Feedback and Improvement Process (specifically, increasing the LTAV and removing financing costs from the SIR calculation, both of which significantly expand the scope of projects eligible for PACE financing) some stakeholders questioned whether the variance provision was still needed. The Working Group considered multiple options² for revising the existing language but ultimately recommended removing the SIR variance option from the underwriting guidelines.

Guidance

Purpose: The SIR serves two purposes -

1. The SIR requires a positive cash flow during the life of the assessment so that the project pays for itself. An SIR > 1, while an important factor in determining adequate project cash flow, it is not intended to be a substitute for a lender’s underwriting criteria; and
2. The purpose of the Texas PACE Act is to help businesses overcome the barriers preventing investment in energy and water saving equipment. These benefits are important to the State of Texas because of natural energy and water resource limitations, population growth, and drought.

² The Working Group: 1) was unable to find another PACE jurisdiction with an SIR requirement that allowed exceptions to the requirement, 2) had trouble defining a permissible SIR floor in the event a variance was granted, 3) considered tiered approaches to SIR variances, with lower permissible SIR floors available with greater savings beyond baseline requirements, 4) considered limiting SIR variances to certain measures (specifically, water saving measures), 5) considered potential structures for a variance limited to water measures, and 6) considered disclosure and approval requirements applicable to local governments and lenders.

The use of the PACE assessment local economic development tool secured with a senior lien is appropriate for this focused purpose and in balance with the general interests and needs of the Texas business and lending communities. The SIR requirement helps ensure that the projects are robust energy and water saving measures.

Term for SIR calculation

The current policy of measuring the SIR over the life of the assessment rather than the projected useful life of the improvements will be maintained.

LENGTH OF TIME BEFORE PRINCIPAL MUST BE PAID ON PACE ASSESSMENTS

Effective Date: [February 14, 2025](#)

Purpose: To establish an appropriate time frame for capitalized interest or interest only payments prior to the requirement of principal payments in a TX-PACE assessment.

Guidance

The market allows for a reasonable amount of time before principal payments on financing for financing the installment of qualified measures should be required. A property cannot be used during construction or a gut rehabilitation or repurposing of the property so there is an appropriate time in which interest only or capitalized interest payments are appropriate. However, it is important that the savings on the project are afforded throughout the assessment term, not just in its beginning. Local governments have agreed to enforce defaulted installments and as the PACE capital provider's collection agent, it is in the best interest of the local governments that principal be paid on long term fixed rate PACE assessments. The Underwriting Working Group recommends that when TX-PACE financing is used for the installment of qualified measures, that capitalized interest or interest only payments be permitted up to:

- 24 months during construction (an additional year may be added if justified by construction documents); and
- 24 months for a property to stabilize if needed

For a maximum of 5 years prior to a required payment of principal.

REFINANCE EXCEPTION: In the case of a refinancing of previously installed qualified measures, there is no need for interest only or capitalized interest for a construction period since construction has already occurred. Up to 36 months may be permitted for the property to stabilize if that has not yet occurred.

GUIDANCE FROM THE FINANCIAL PLATFORM WORKING GROUP and THE EDUCATION, TRAINING AND MARKETING GROUP REGARDING LENDER EDUCATION AND OUTREACH

Effective date: [December 31, 2017](#)

Purpose: Feedback on the conference calls for the Financial Platform Working Group and the Education, Training and Marketing Working Group mentioned the need for more education and outreach to mortgagees about TX-PACE.

Guidance

Amend the Lender Consent Model Form after the box: “Maximum Amount of Assessment Authorized” by the mortgagee to insert a new box: “Maximum Annual Installment Amount Authorized.” The proposed addition would result in having both boxes appear on the form:

“Maximum Amount of Assessment Authorized_____

Maximum Annual Installment Amount Authorized_____”

Background

Section 399.101 requires written consent from the existing mortgagee as a precondition to property eligibility under the [Texas PACE Act](#). Requests were made for the insertion of additional information to clarify the impact of the PACE senior lien on the existing mortgage. Only past due assessment installments are eligible for collection in a senior lien position under Texas Local Government Code section 399.014. A PACE lender may not accelerate future installments of the PACE loan, and the property remains subject to the assessment lien for future installments until the total PACE assessment has been paid.