

AIChE STS Friday Professional Development Webinar
January 15, 2021



What is PACE? Where is PACE?

C&I Market Drivers/Challenges/Opportunities

State Authorization, Local Adoption Model

Uniform Standards & Program Guidelines

Project Roles And Participants

Case Studies

Resources



TEXAS PROPERTY ASSESSED LEAN ENERGY (FINANCING)

A simple way of paying for capital projects with no money out of pocket

What: A financing option for energy efficiency and renewable energy projects

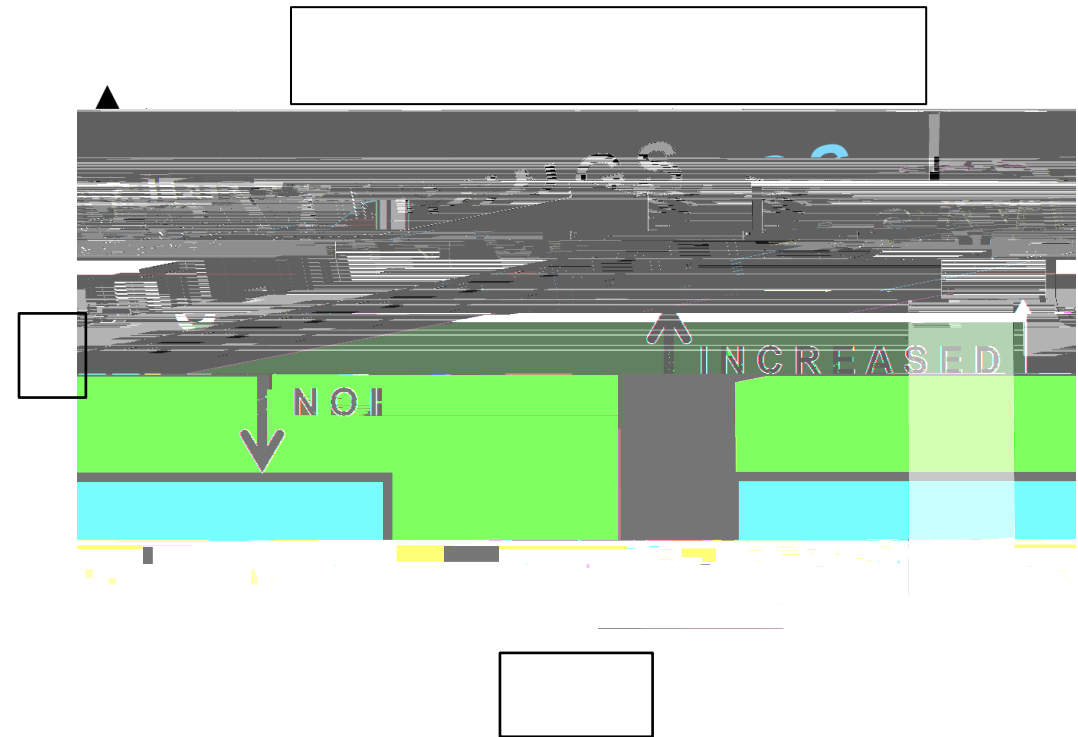
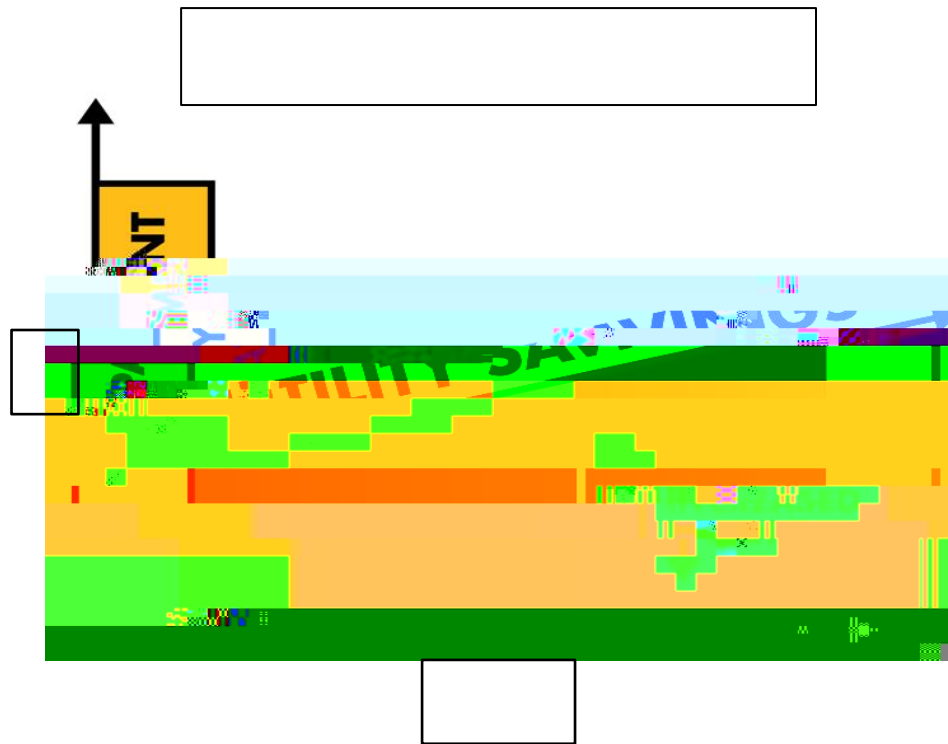
Where: Commercial (including non-profit), industrial / agricultural) and multi-family (5+ units) properties

How: Repaid via special property assessment over the useful life of the improvements

- State Authorized
- Local Government Enabled
- Voluntary & Open Market

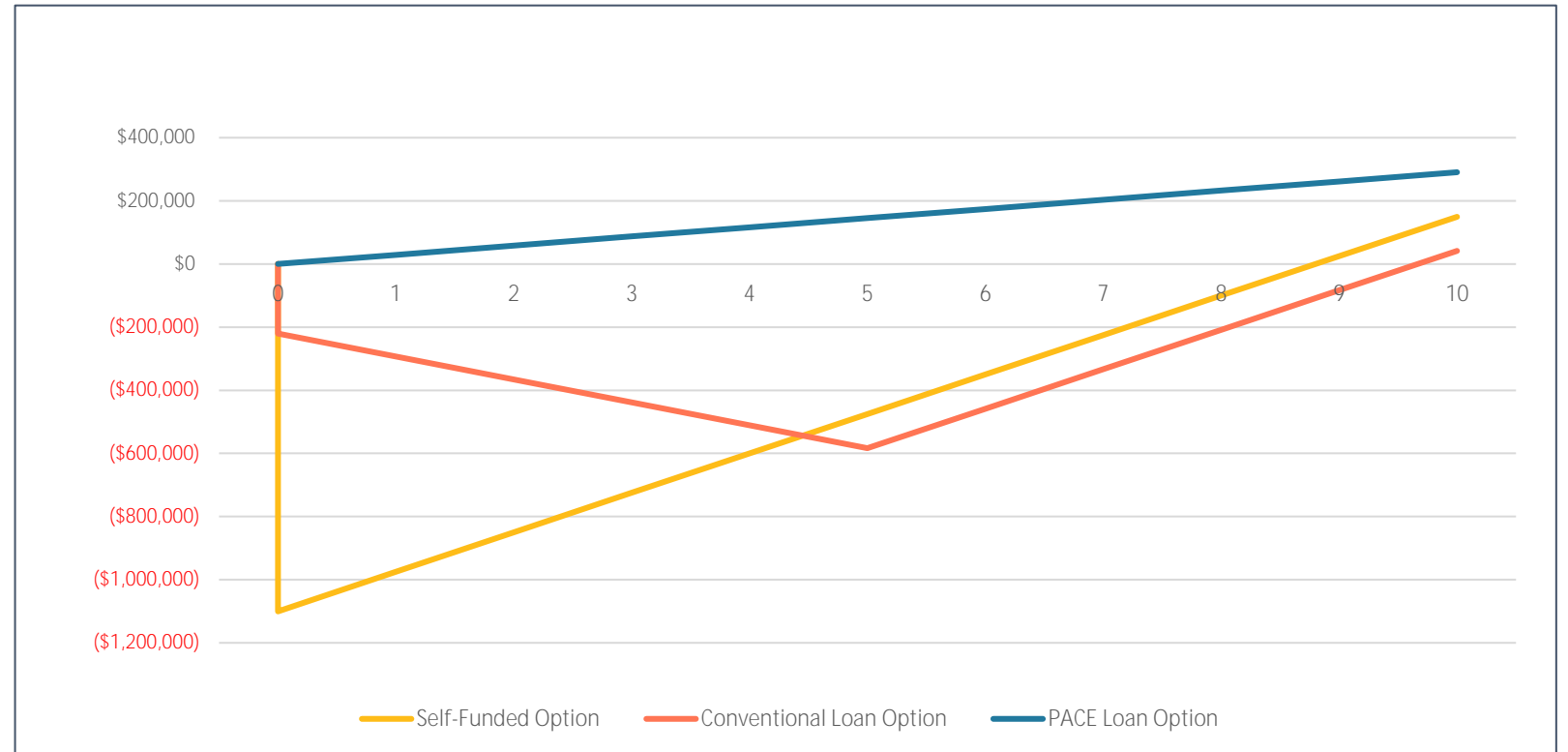
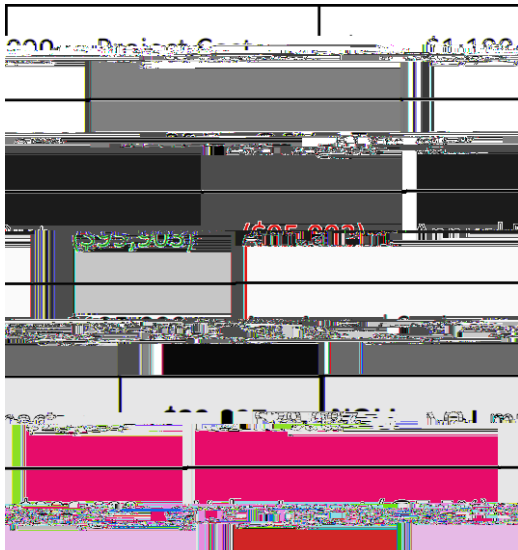


Improves assets Ì budget neutral/cashflow positive
Lowers utility usage/costs
Increases net operating income



Increases property value with no capital investment by owner
Generates positive cash flow immediately

Efficiency Upgrade: \$1.1M
Savings: \$125K/yr



<https://www.texaspaceauthority.org/pace-vs-traditional-financing/>



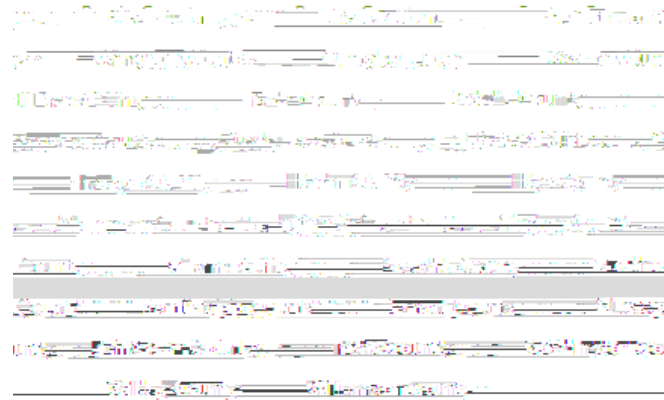
PACE-enabling legislation active in 36 states plus D.C.
Programs active in 24 state plus D.C.

COUNTIES

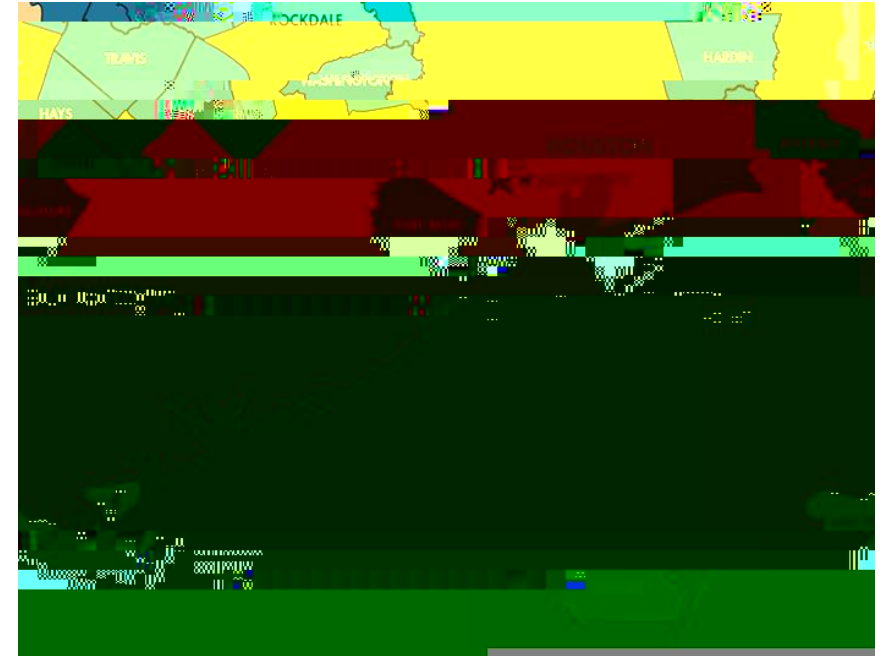
Aransas County

Bastrop County

Bell County



CITIES

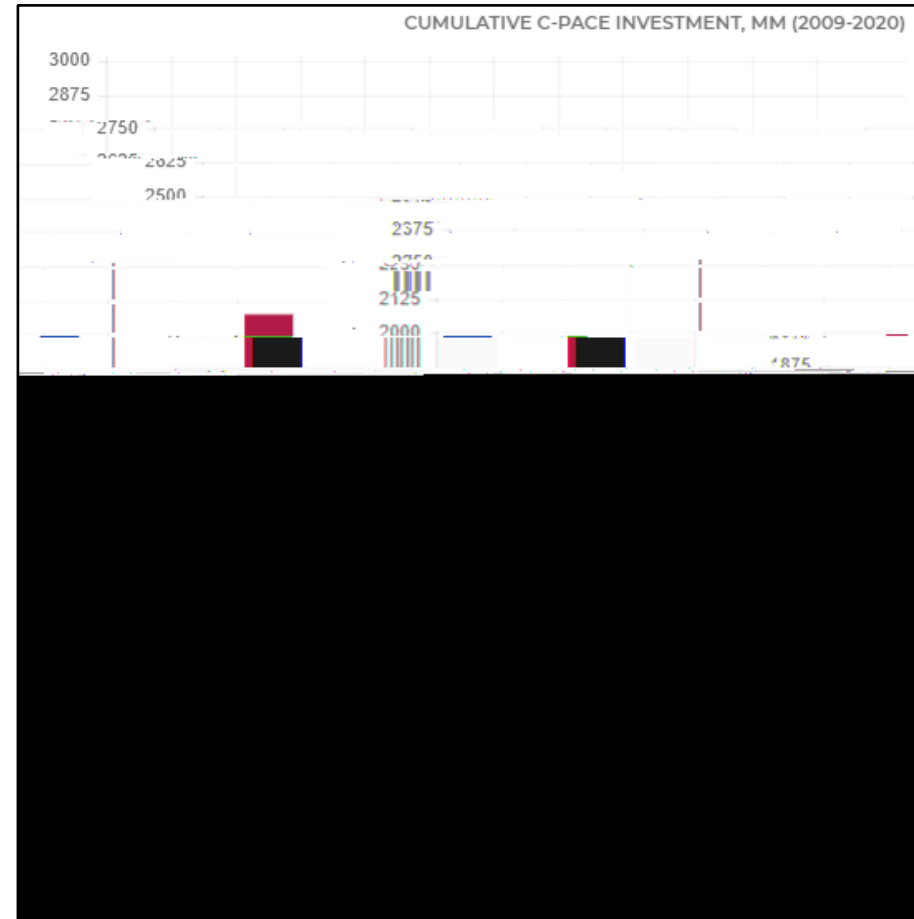


55 PACE local programs
60 % of state population covered

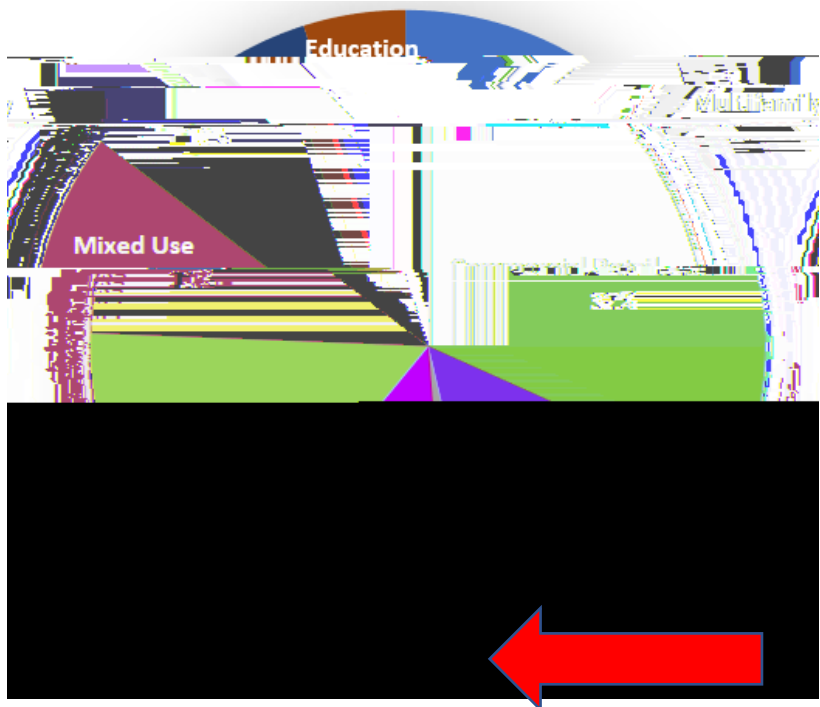
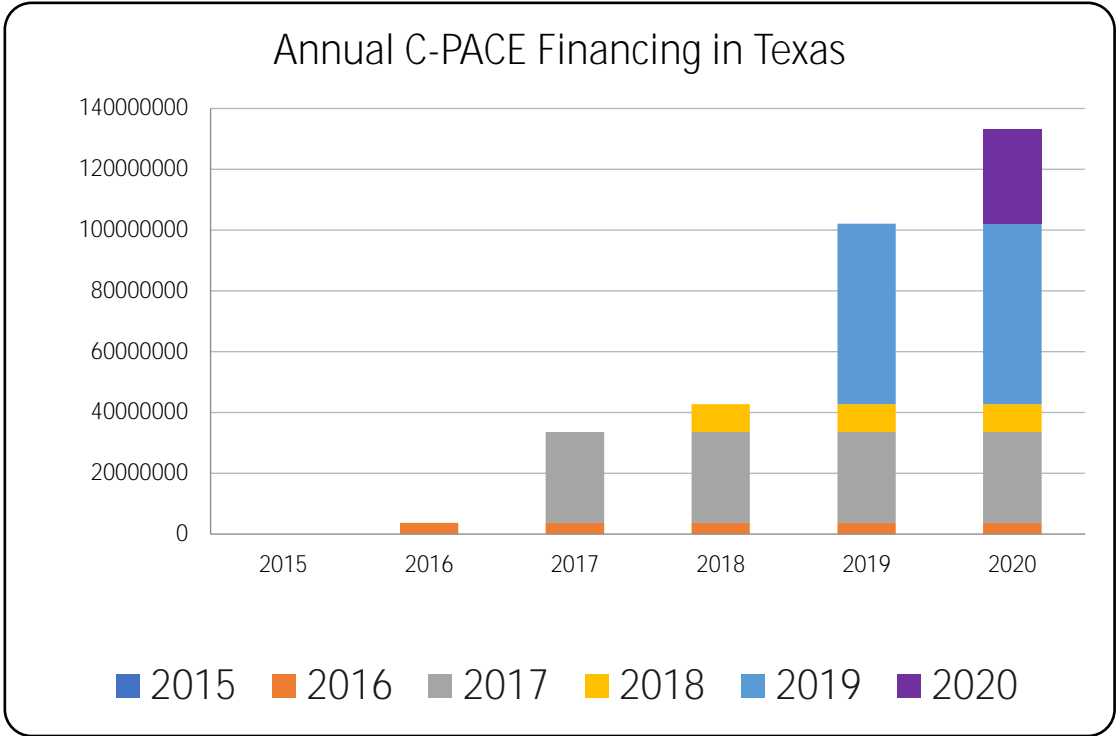


2,560 C&I projects
\$2,074 (MM) investment
24,000 jobs created

Energy efficiency 49%
Renewable energy 23%
Mixed 22%
Resiliency 7%



\$134 million of investment to date



Energy Efficiency: 55% / Water Conservation: 33% / Distributed Gen: 12%



PACE is for commercial properties only – hospitality, retail, office buildings, apartments

PACE is for only smaller projects – HVAC, lighting, etc

PACE can only be used for equipment – not design, engineering, installation and commissioning

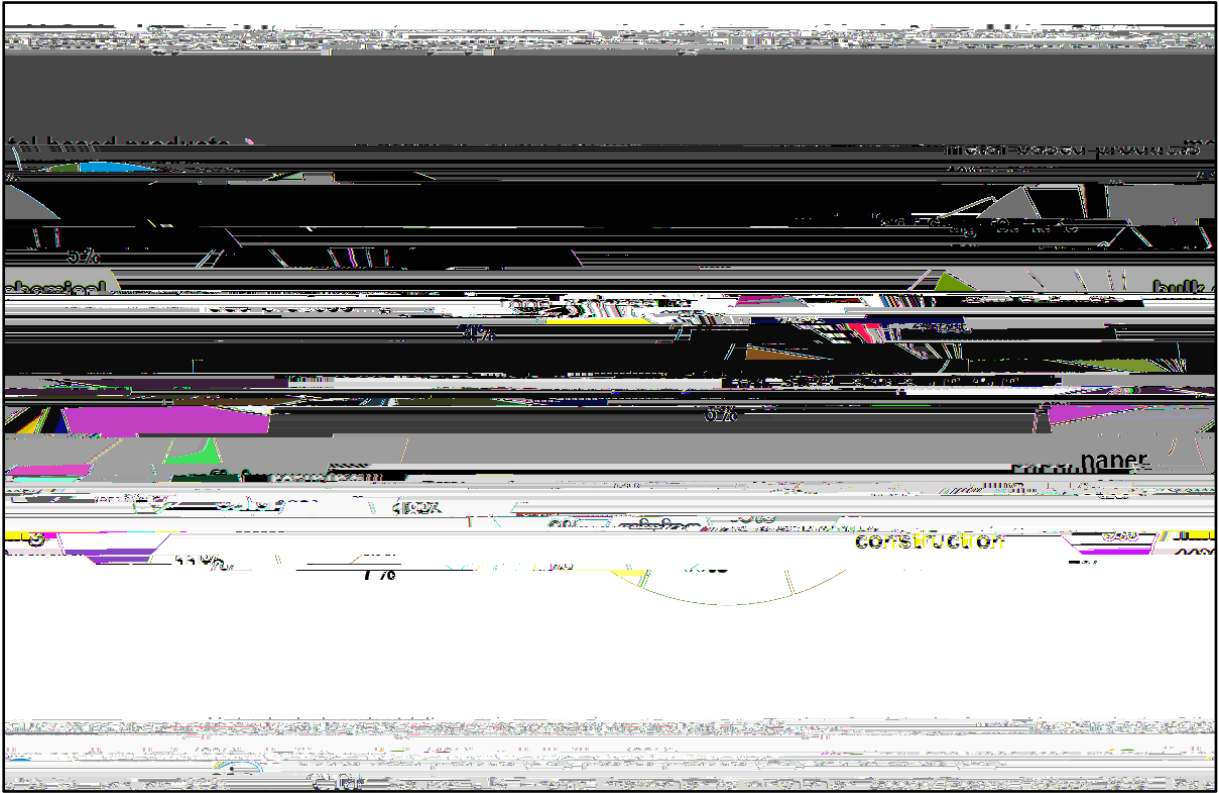
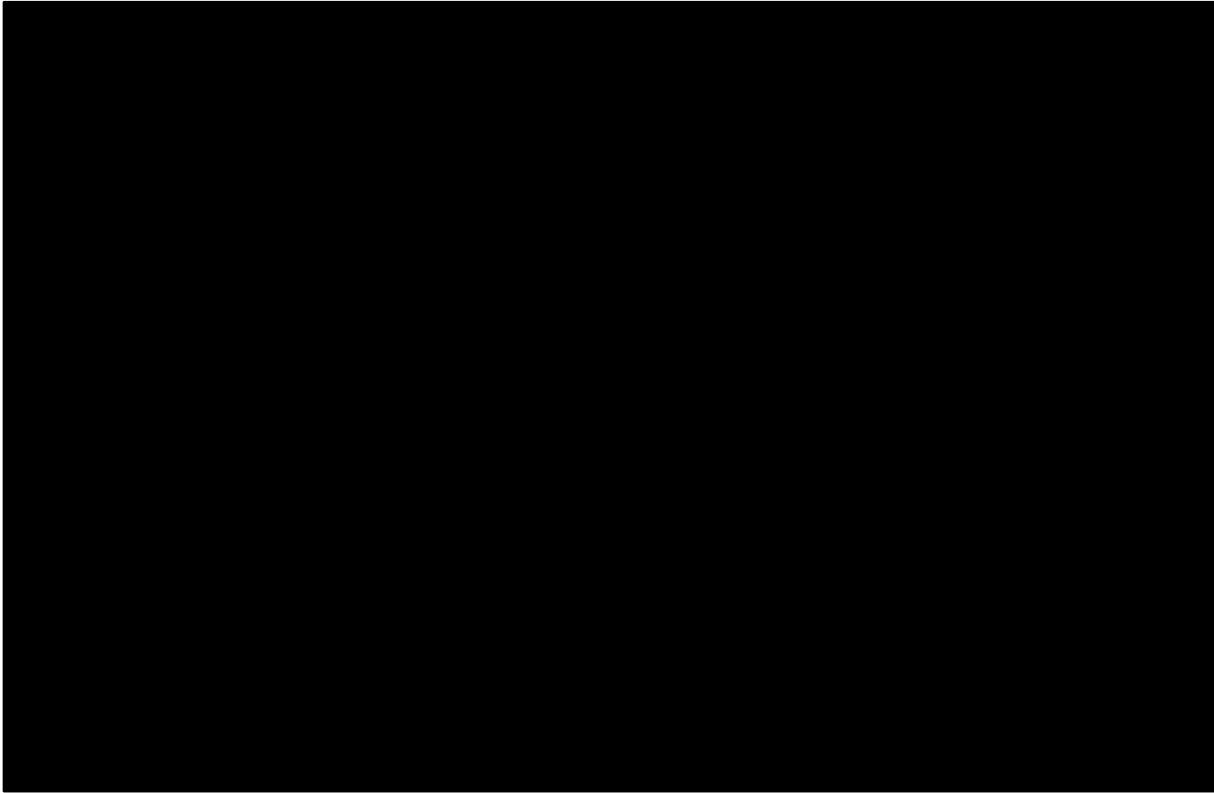
PACE uses government funding with strings attached

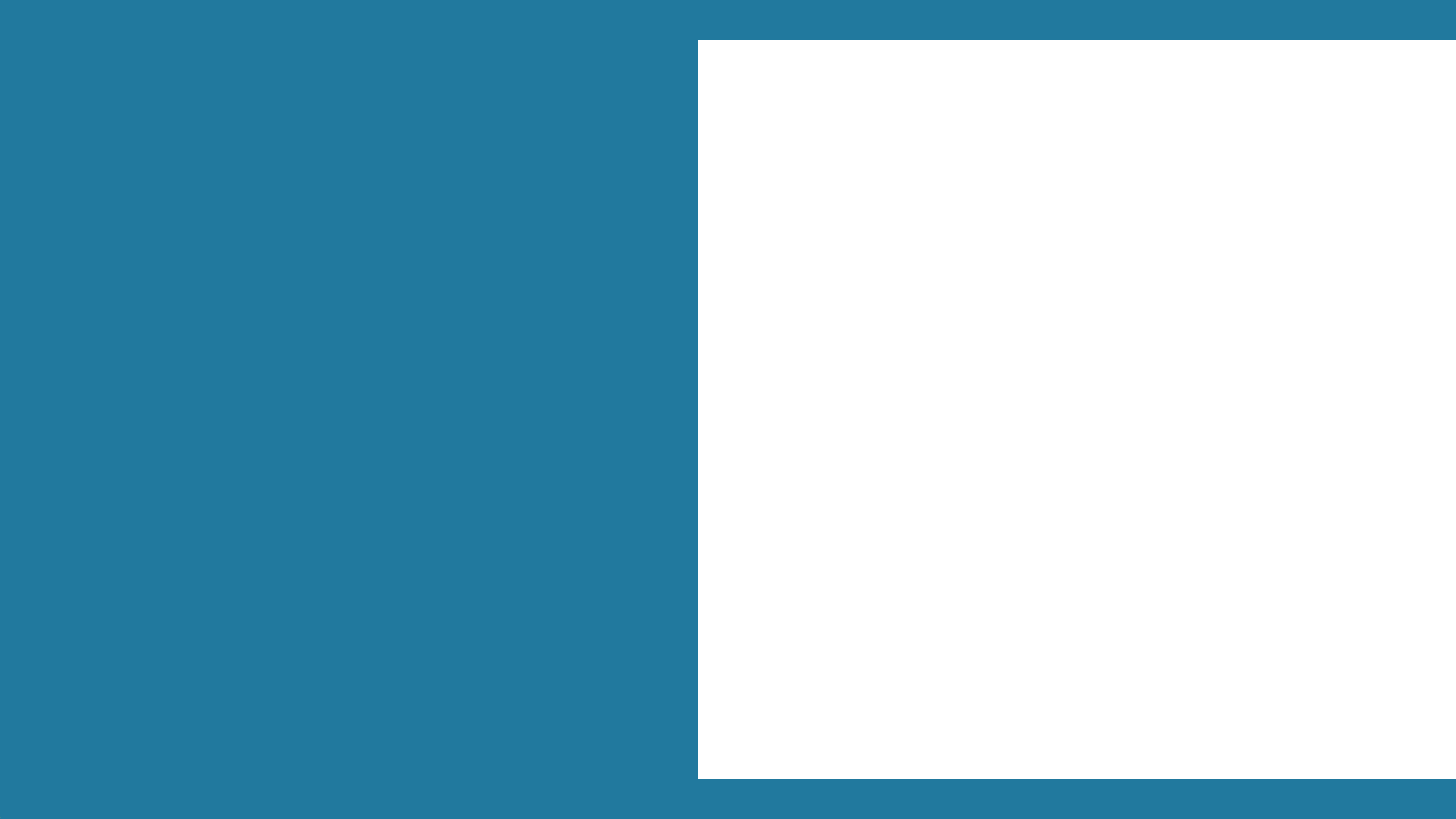
NYFNYgUb'i ddYf`]a]h'ic b'D5 7 9'Z]bUbW]b[

I must use contactors and capital providers from a list

PACE has deadline – WUbÑh'gmbWk]h\ 'H5 Fž'g\i hXck bg'









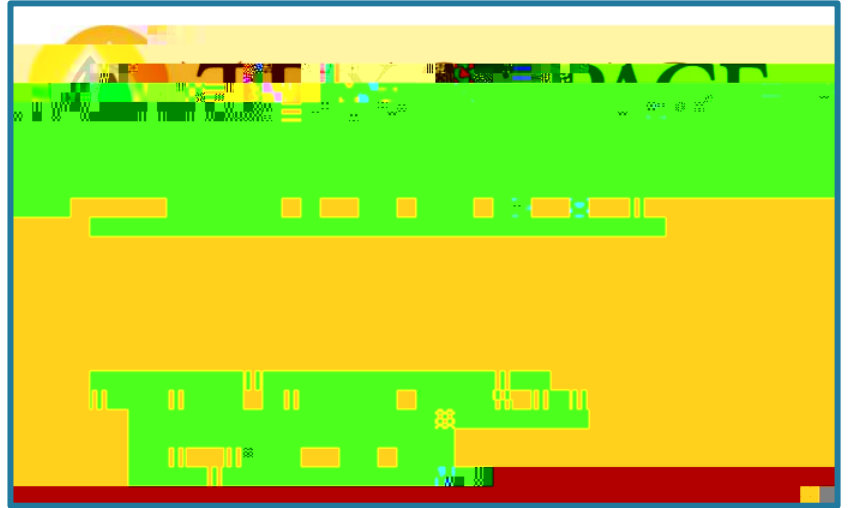
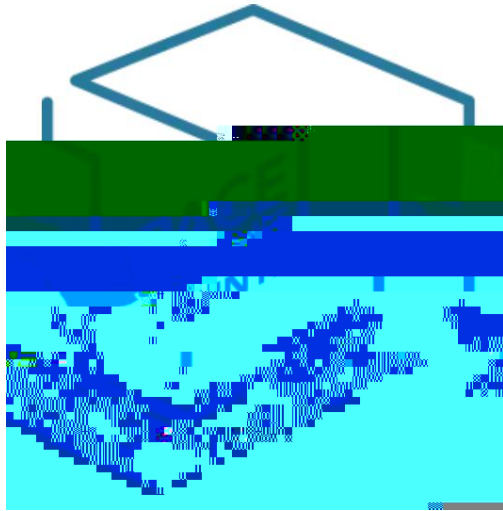
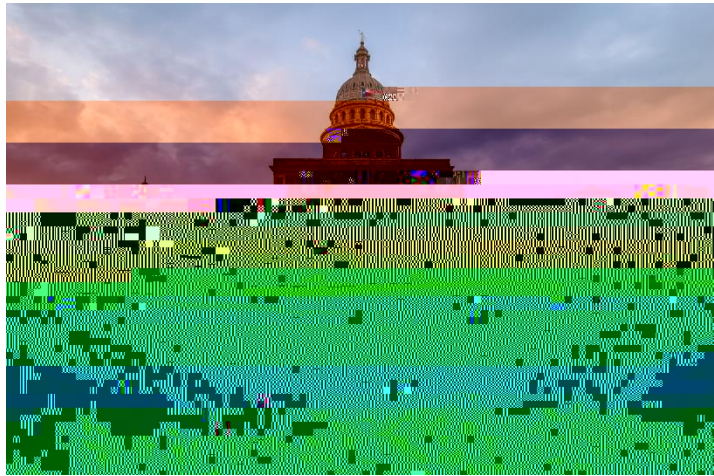
<https://www.spglobal.com/ratings/en/research/pdf-articles/190603-esg-industry-report-card-chemicals>



What is PACE? Where is PACE?

C&I Market Drivers/Challenges/Opportunities

Uniform Standards & Program Gu60 5R1(e)e5R1(e)e5R1(e)e5R1(e)e5R1(e)

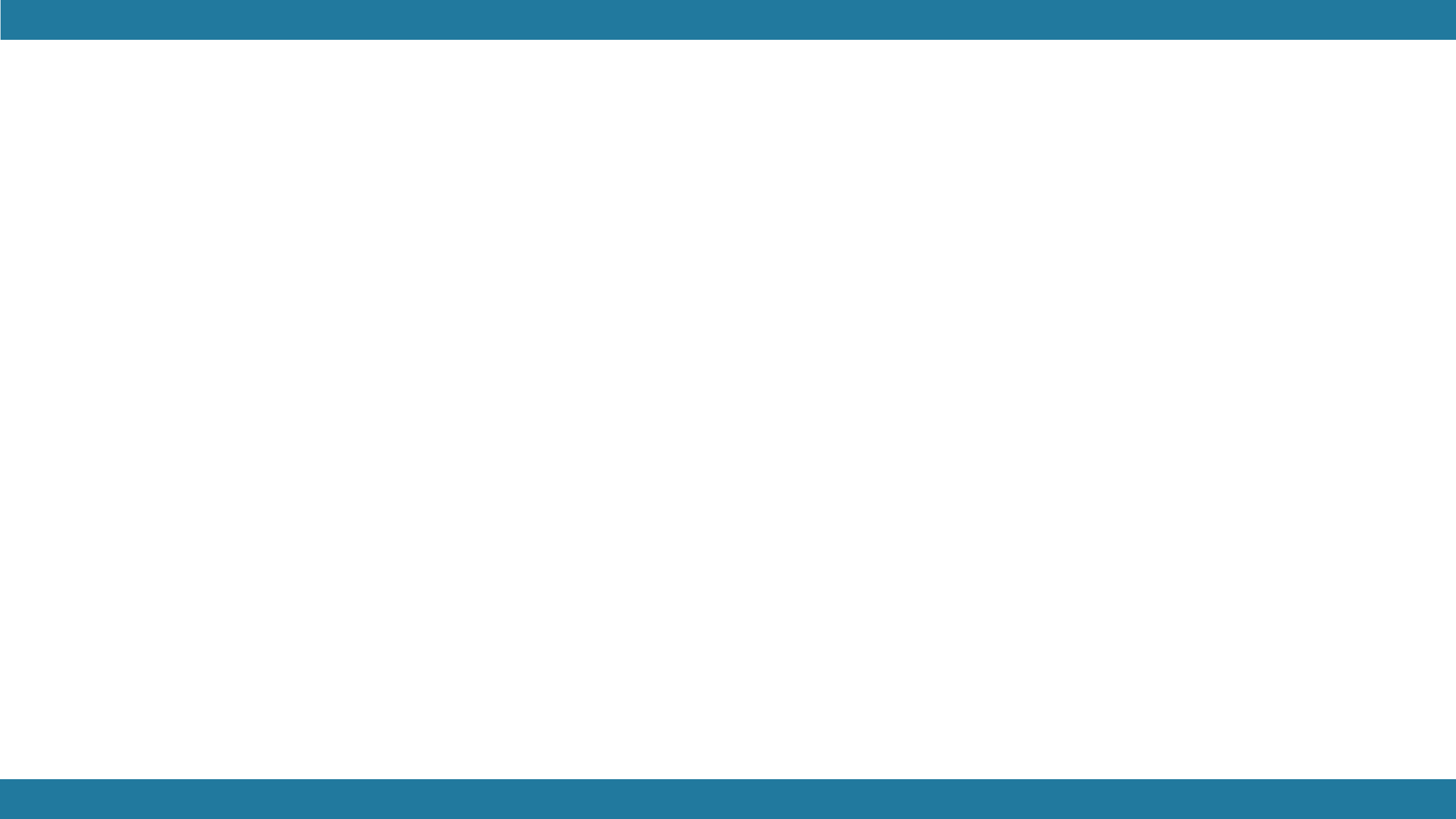


a permanent improvement fixed to real property and intended to decrease water or energy consumption or demand, including a product, device, or interacting group of products or devices on the customer's side of the meter that uses energy technology to generate electricity, provide thermal energy, or regulate temperature.

the installation or modification of a qualified improvement.

privately owned commercial or industrial real property or residential real property with five or more dwelling units.





Materials and labor necessary for the installation of a qualified improvement/equipment

Changes to the existing property that are incidental to the installation

Design, project development and engineering costs

Permit fees & inspection fees

Commissioning costs

Independent Third-Party Review fees, including verification fees

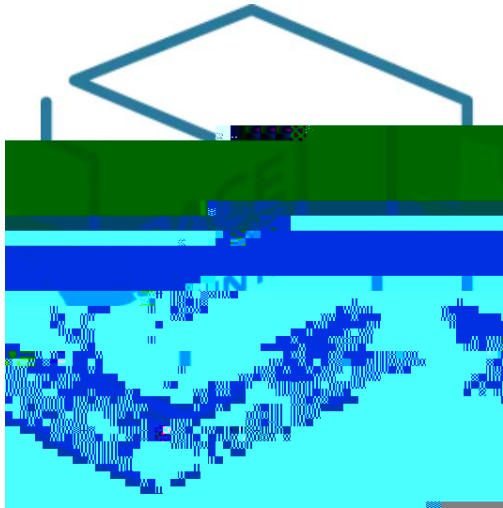
Legal, consulting and other fees on an actual cost basis

@YbXYfNjZYYg

Program application and administrative fees

Any other fees or costs that may be incurred by the property owner incidental to the installation, modification, or improvement





- 1) Program Design
 - 2) Program Underwriting Standards*
 - 3) Funding Platform
 - 4) Education, Marketing and Training
 - 5) Technical Standards*
-

*Under review/update now



American Society for Testing and Materials (ASTM)
International Performance Measurement and
Verification Protocol (IPMVP)
American National Standards Institute / Building
Owners and Managers Association (ANSI / BOMA)
American Society of Heating, Refrigerating &
Air-Conditioning Engineers (ASHRAE)
National Institute of Standards and Technology (NIST)

Texas-licensed Professional Engineer with
energy/water 17* nnsional Engineer with



$$\text{SIR} = \text{Savings} / \text{Investment}$$

Savings Ì Total energy/water \$ savings over the life of the project/assessment

Investment Ì Total amount of assessment (financing amount)

Example: Pumps, motors, controls

Project Cost - \$1,000,000 (including financing costs)

(Utility Incentives - \$50,000)

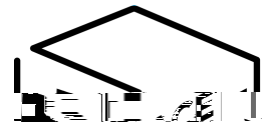
Project Savings - \$950,000 over 20-year period

$$\begin{array}{l} \text{Savings} \\ \text{Investment(net)} \end{array} \quad \begin{array}{l} \underline{\$950,000} \\ \$950,000 \end{array} = \text{SIR } 1$$

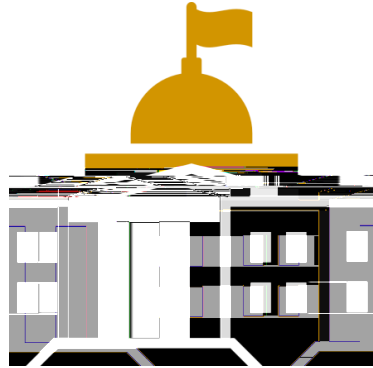




- 1) Post *Report* on how PACE program will work
- 2) Public briefing/discussion (optional)
- 3) Pass *Resolution of Intent* to establish PACE program
- 4) Public hearing (required)
- 5) Pass *Resolution to Establish* PACE program
- 6) Select administrator



Local Governments



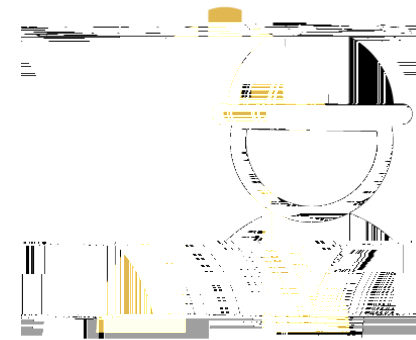
Property Owners



Native Texan 501(c)(3)



Capital Providers



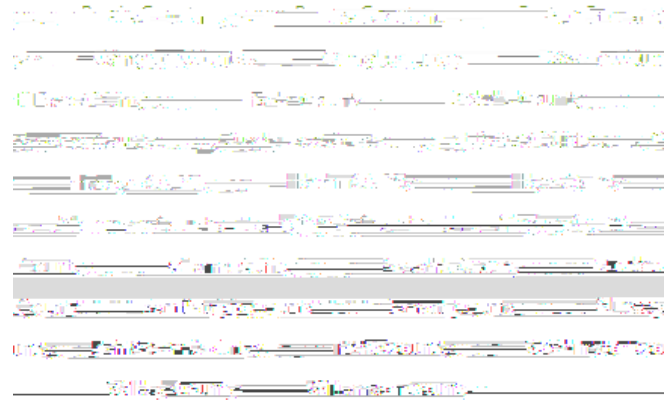
Service Providers

COUNTIES

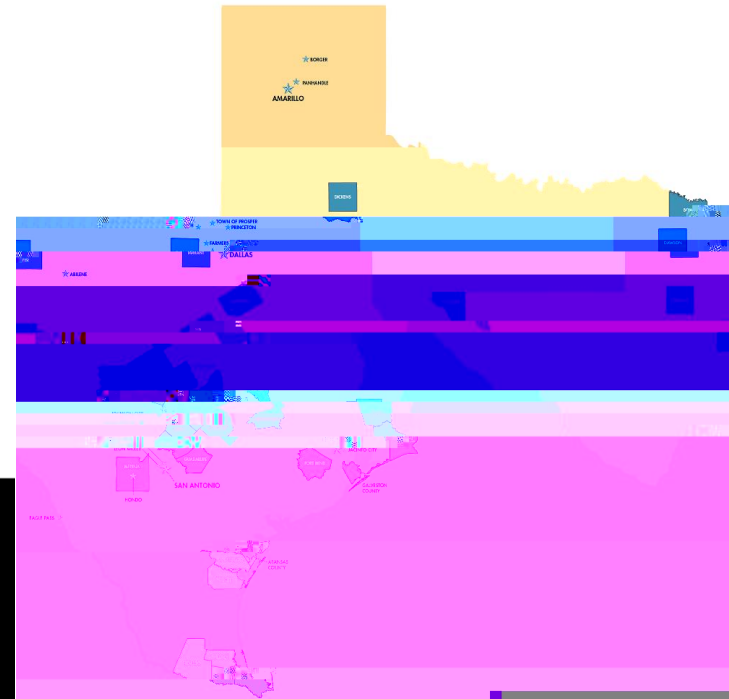
Aransas County

Bastrop County

Bell County

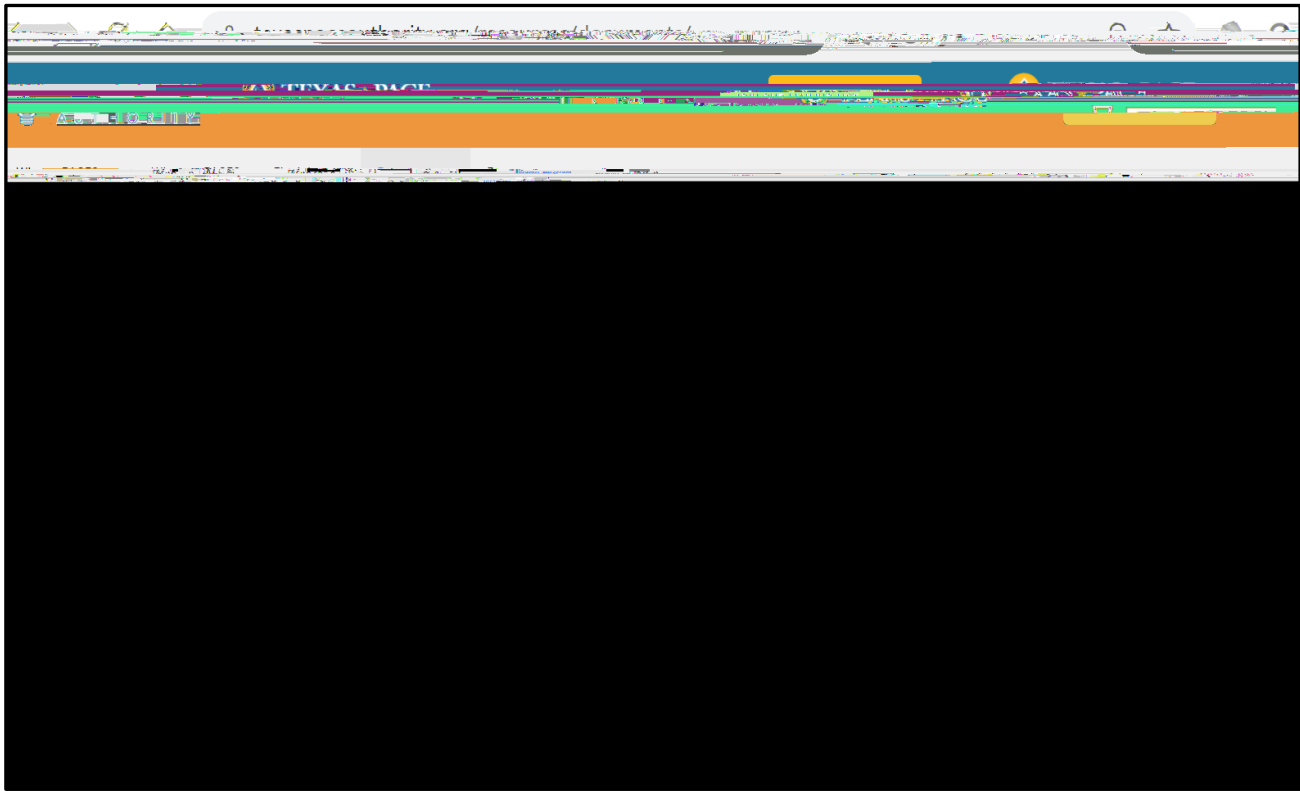
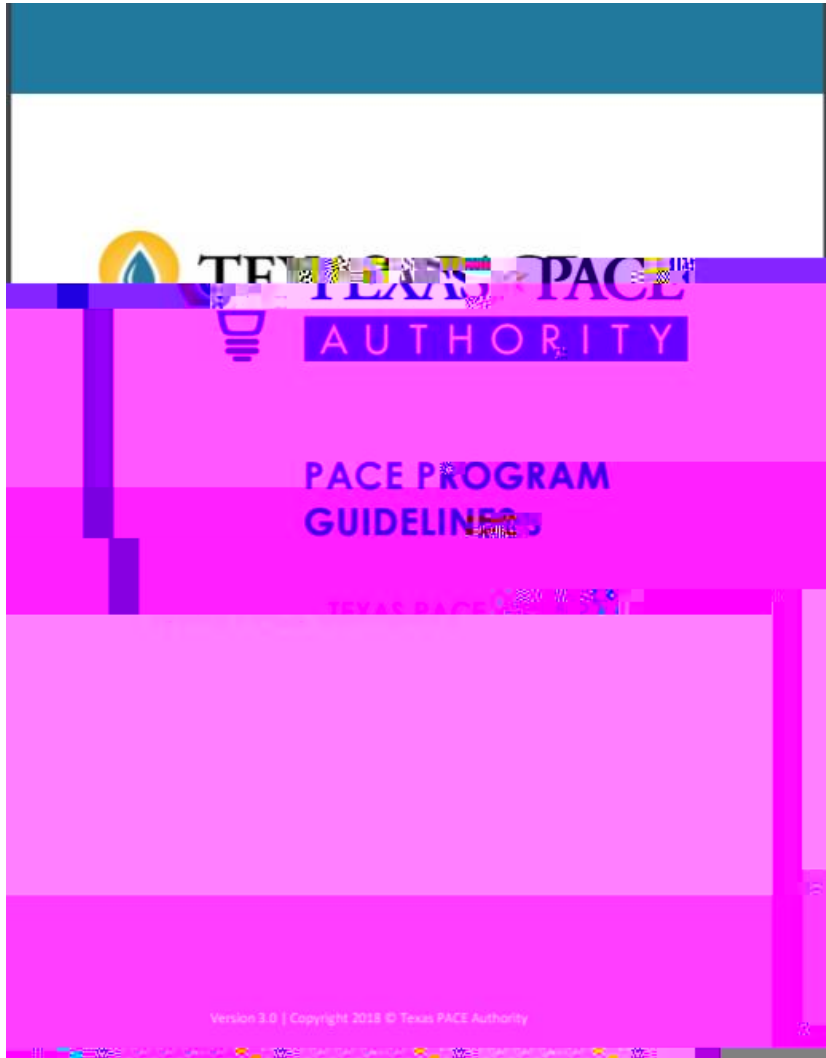


CITIES



55 PACE local programs
60 % of state population covered





What is PACE? Where is PACE?

C&I Market Drivers/Challenges/Opportunities

State Authorization, Local Adoption Model

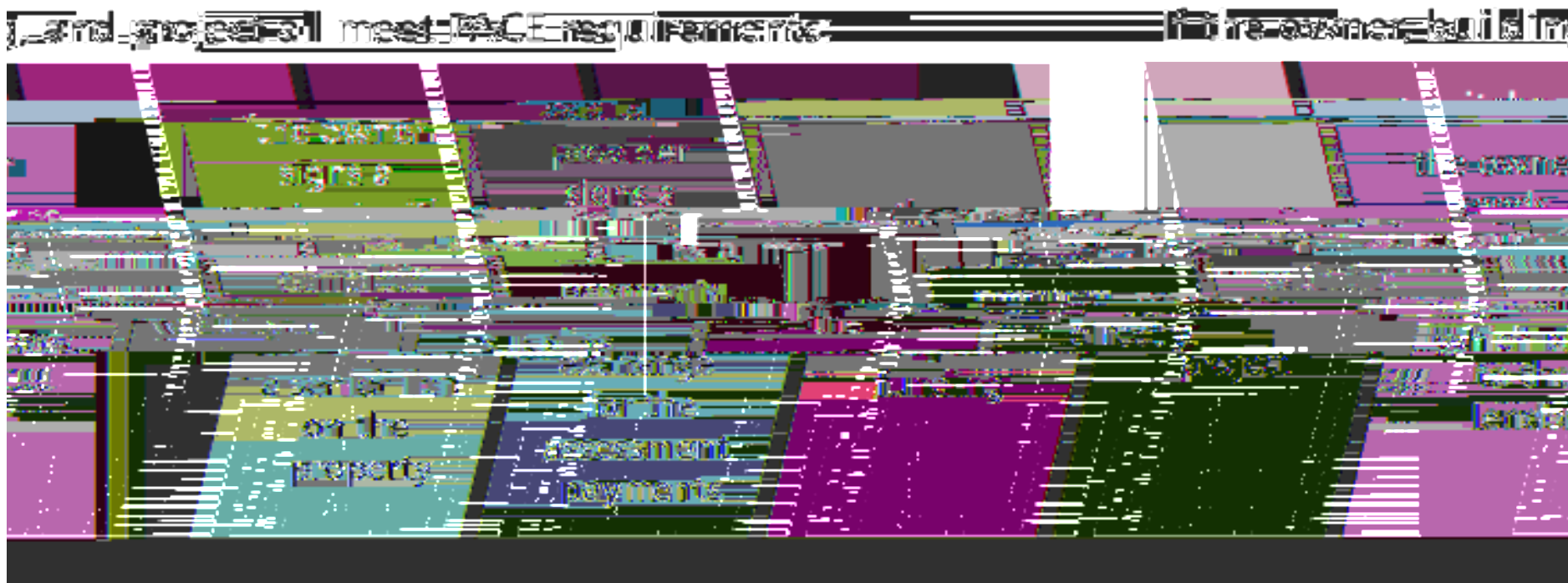
Uniform Standards & Program Guidelines

Case Studies

Resources



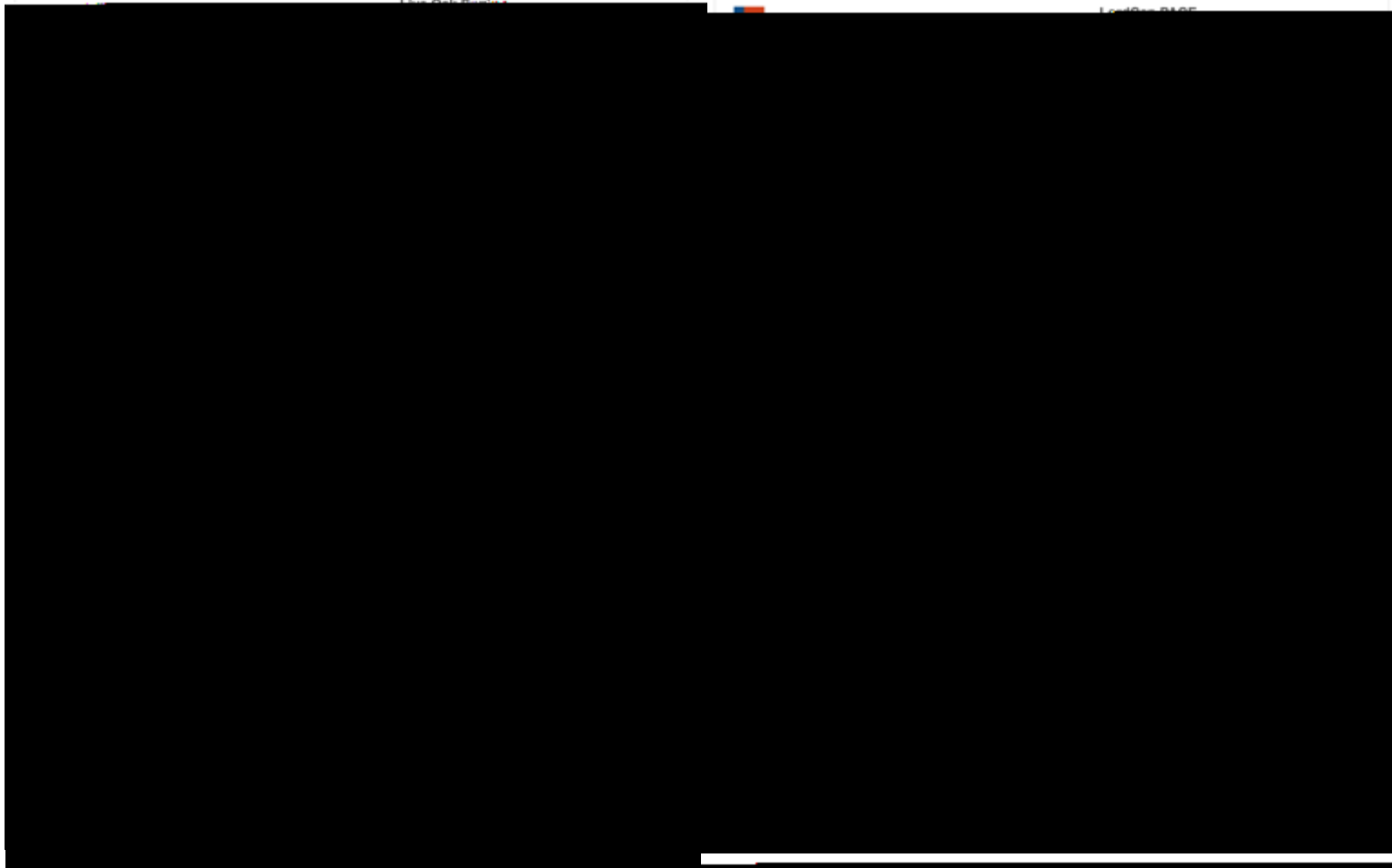
How It Works



Greenworks Lending
 Preferred Financing Range: \$100K - \$500K
 Types of Projects: Any Eligible Technologies and Properties
 Geographic Coverage: All of Texas
 Contact: info@greenworks.com
www.greenworks.com

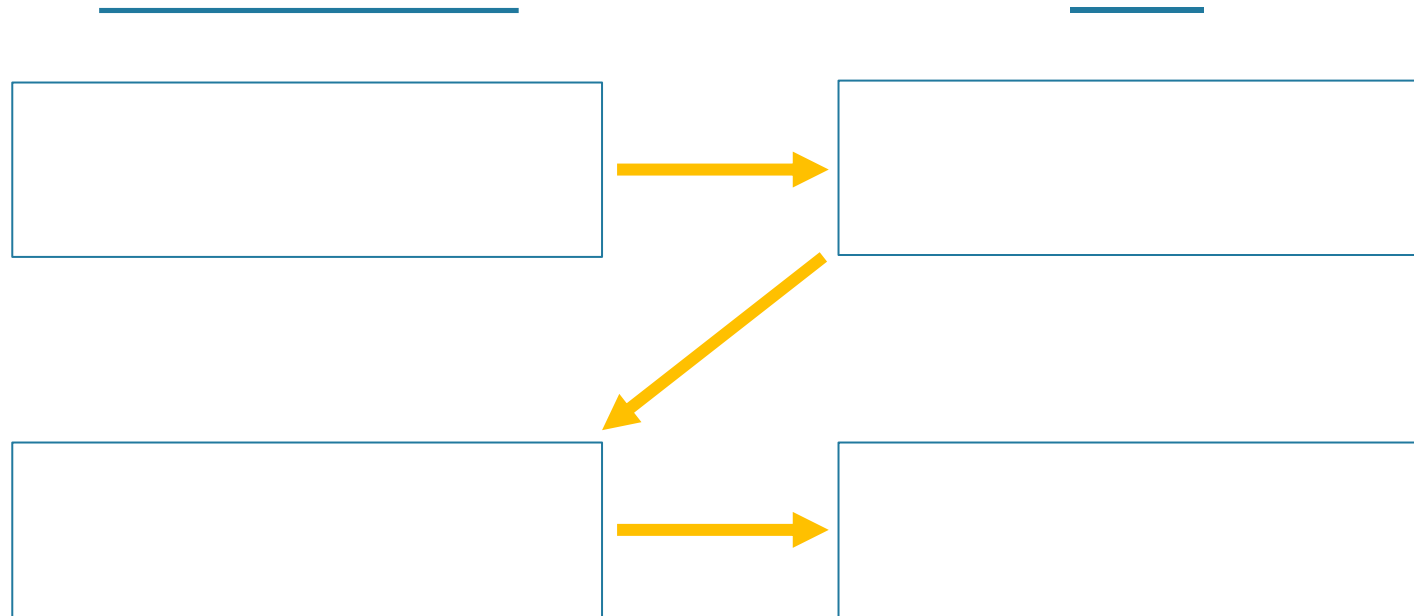
STONEHILL
 Preferred Financing Range: \$100K - \$500K
 Types of Projects: Any Eligible Technologies and Properties
 Geographic Coverage: All of Texas
 Contact: Connor Murch
www.stonehillpace.com

Hall Structured Finance
 Preferred Financing Range: \$15MM - \$50MM
 Types of Projects: Hospitality, Multi-Family, Office, Retail, Warehouse
 Geographic Coverage: All of Texas
 Contact: connor@hallstructured.com
 214-209-2400



CLEARFUND
 Preferred Financing Range: \$1MM - \$100MM
 Types of Projects: Any Eligible Technologies and Properties
 Geographic Coverage: All of Texas
 Contact: info@clearfund.com
www.clearfund.com

www.texaspaceauthority.org/home/capital-provider-list/



*Owner-selects Contractor and ITPR



Performed by Contractor or Engineer

7 c bZc fa g'hc 'HD5 ÑjHY W b]WU``GhU bX UfX g

2 Key Components:

- Baseline Analysis

- Projected Savings Analysis

Uses Energy/Water Assessment Report Template



Independent Third-Party Reviewer (ITPR)

Texas-licensed PE with relevant experience/certifications

ITPR review has 2 parts:

- 1) Review of baseline, savings projections + site visit (photos)
- 2) Verification that project is installed and operating as intended (site visit photos)



What is PACE? Where is PACE?

C&I Market Drivers/Challenges/Opportunities

State Authorization, Local Adoption Model

Uniform Standards & Program Guidelines

Project Roles and Participants

Resources



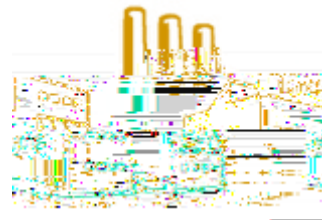
Urban and rural

Office, mixed-use, non-profit, hospitality, multi-family, parking garage, retail

Energy efficiency, water conservation, distributed generation & demand reduction/resiliency projects

Project sizes: \$68,000 - \$24,000,000

All received 100% financing



Houston

HVAC

BAS

LED lighting

\$30,000

\$1,304,352

38% Annually



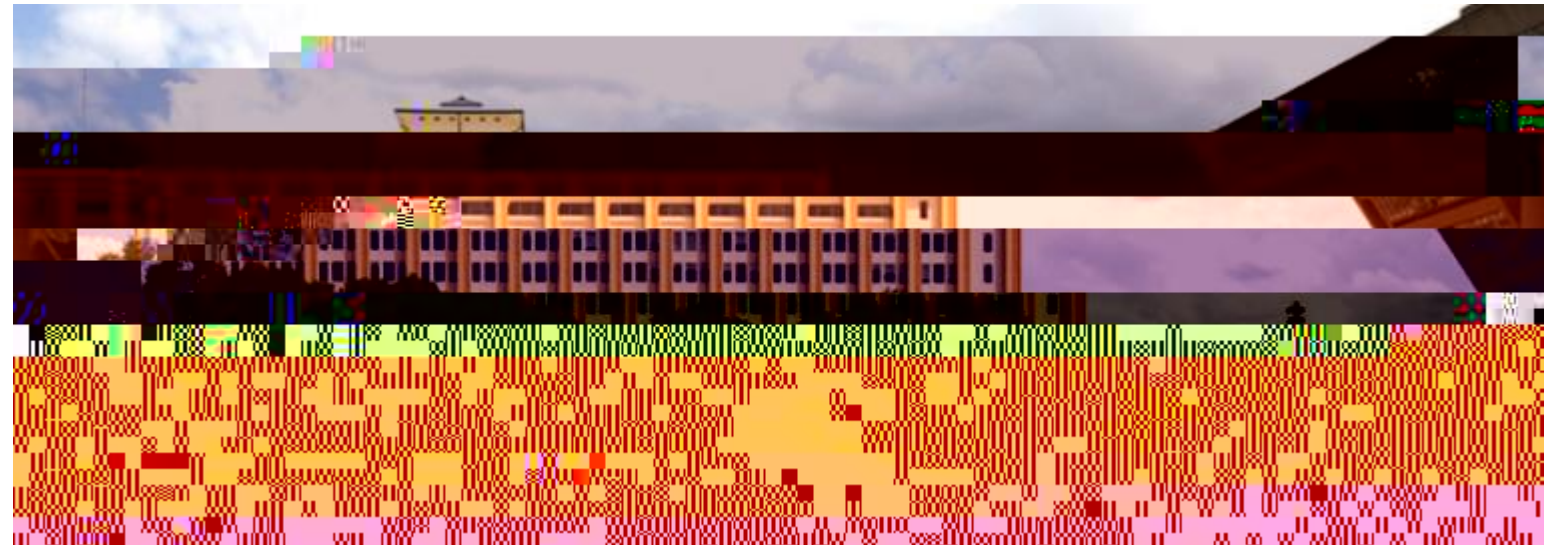
HVAC
Lighting
Insulation, roof
Windows
Plumbing fixtures

\$21 million
Historic Tax Credits

\$23.9 million

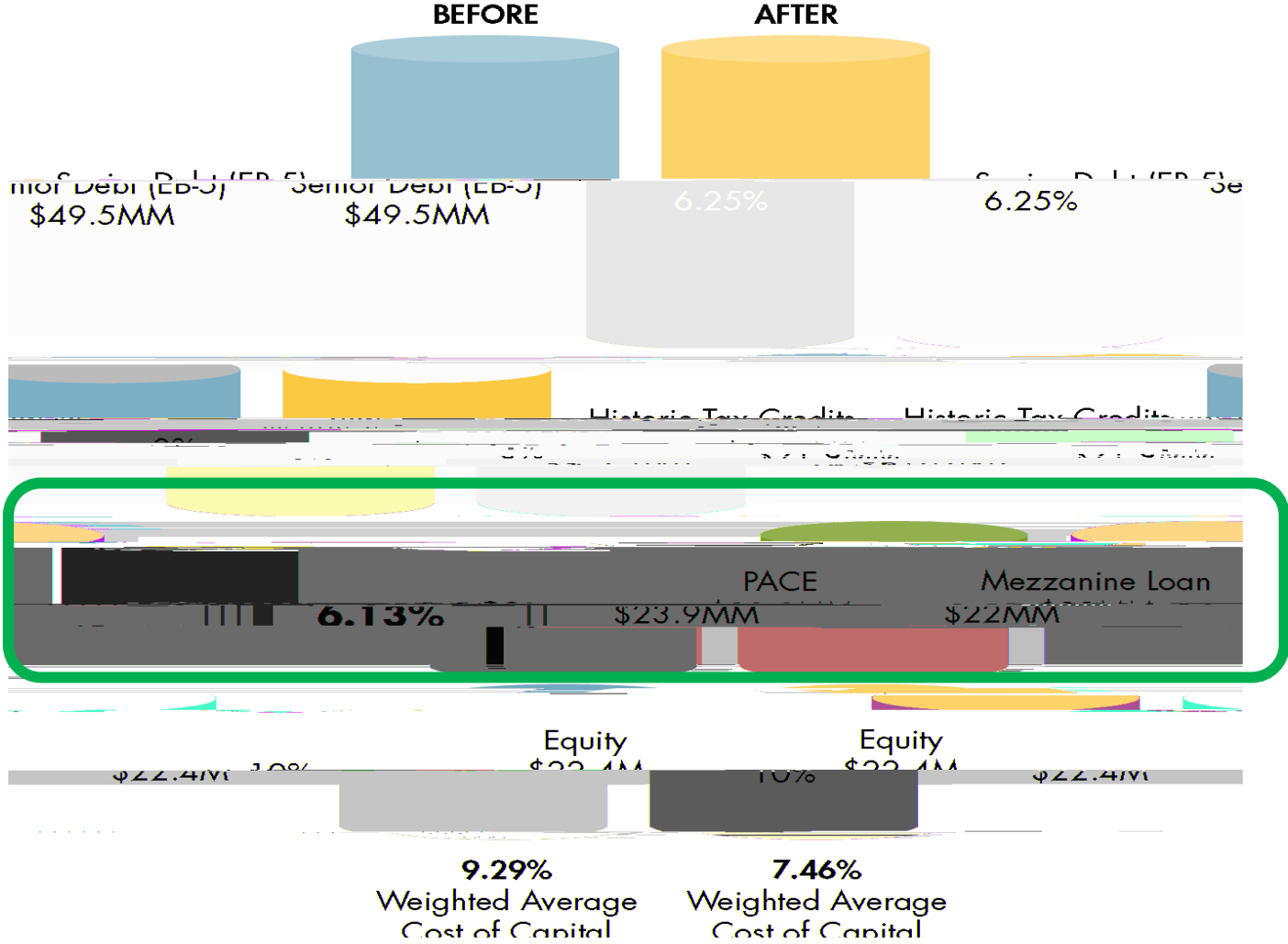
40%

Electric: 6.6 million kWh
Water: 700K gallons

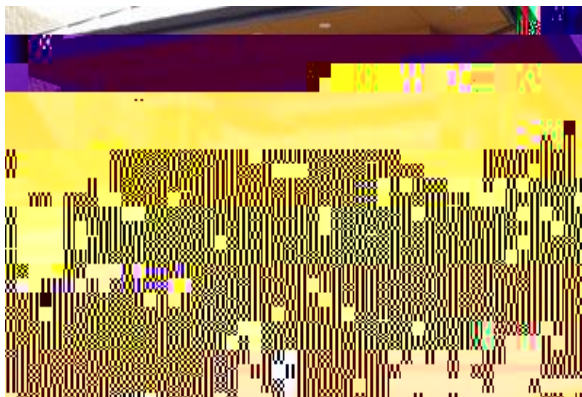


\$116M
 9.29% cost of capital

w/\$24M PACE loan
 \$118M
 7.46% cost of capital (-20%)



El Paso County, Hays County, Travis County, Williamson County, City of Houston



HVAC
Lighting
Water

\$9 Million



What is PACE? Where is PACE?

C&I Market Drivers/Challenges/Opportunities

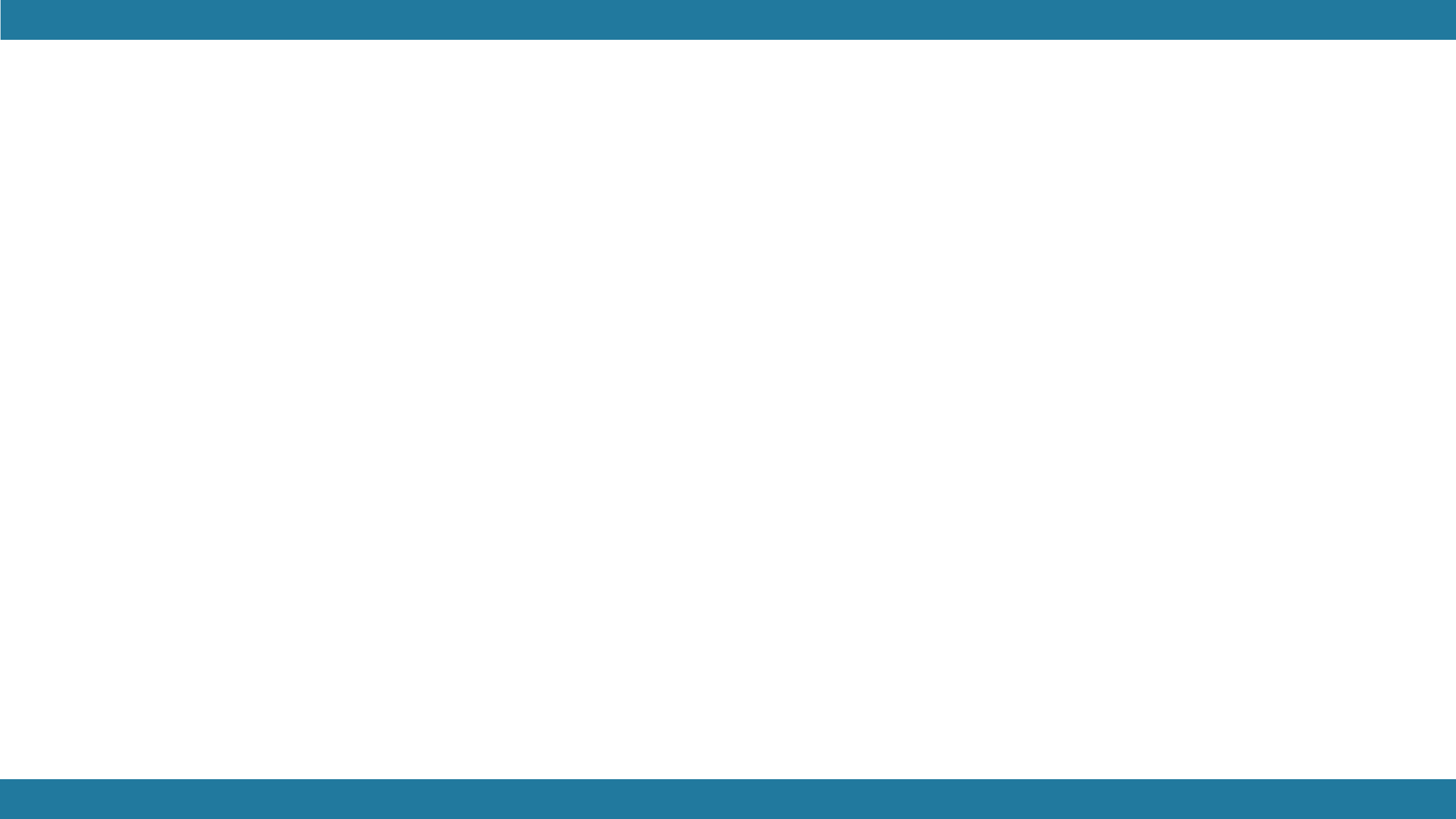
State Authorization, Local Adoption Model

Uniform Standards & Program Guidelines

Project Roles and Participants

Case Studies





FINANCIAL

is not a balance sheet liability (land secured assessment)

XcYgpÑh]Y`i d`U`Wca dUbmÑg`]bY`cZ`WfYX]h`

increases a d`UbhÑg value/performance/environmental

XcYgpÑh`Uj Y`hc`VY`dU]X`cZZ`UhgU`Y`ì tied to land

can be paid for over a longer time

life of equipment versus typical bank 5-year term

cash flow positive day one

PROGRAMMATIC

There are resources to help both the contractor and the customer through the process

Not on you own with unfamiliar paperwork

Communities across Texas are looking to PACE to spur property upgrades, achieve air quality and environmental goals, and enhance economic development

PACE can open doors to conversations with new and existing customers that lead to new business



, COO

Texas Pace Authority

dub@texaspaceauthority.org



www.TexasPACEAuthority.org