

# **CELC Webinar-** **Reinvesting in Communities and Preserving the** **Environment with PACE**

May 25<sup>th</sup> 2022

**CELC** City Efficiency  
Leadership Council



## About SPEER:

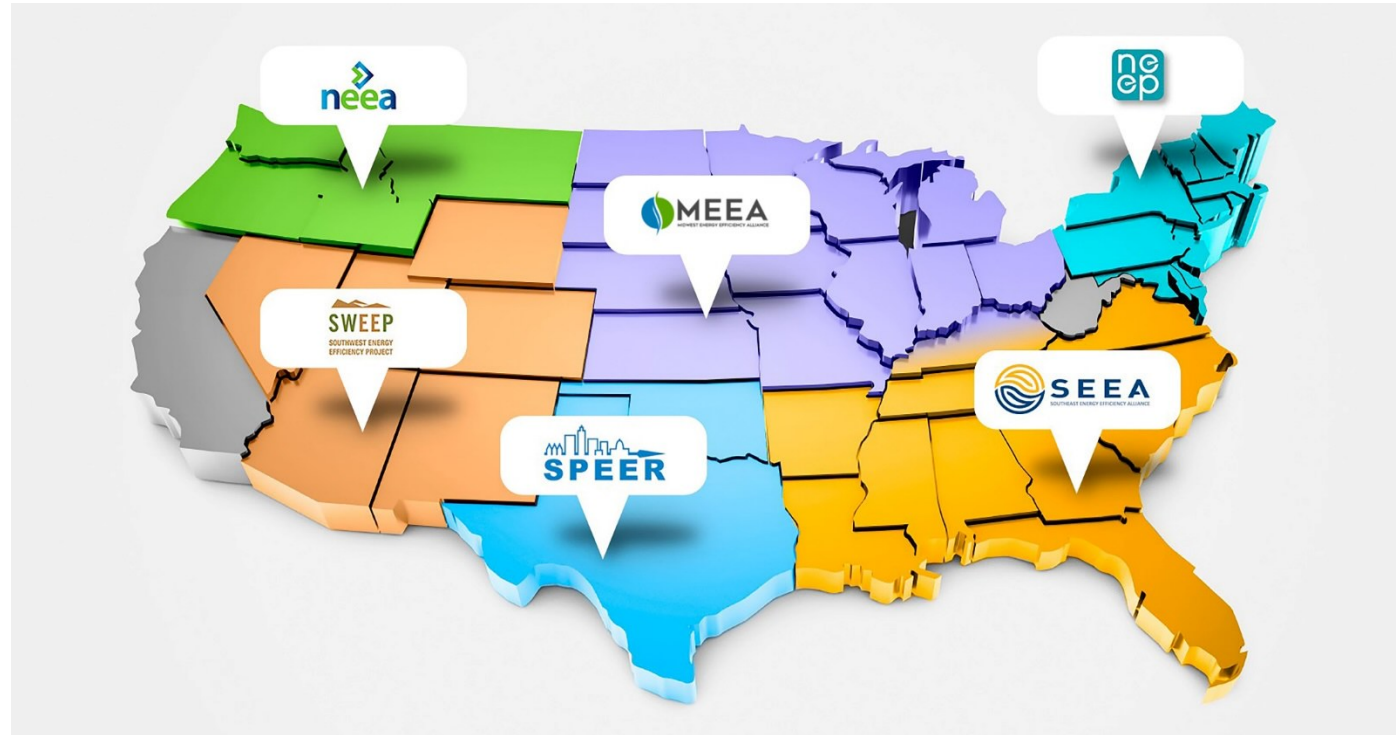
*SPEER's mission is to accelerate the adoption of advanced building systems and energy efficient products and services in the South-central US.*

### Our Work

- Policy
- Building Codes
- High Performance Buildings
- Local Government

### Our Members

- Advocacy Orgs
- Cities
- ESCOs
- Manufacturers
- Trade Associations
- Utilities



## What is the City Efficiency Leadership Council (CELC)?

A collaborative network of Texas cities, school districts, and other government entities engaged in partnership and resource exchange in an effort to expand the adoption of energy management best practices in the public sector.

## How can CELC support energy management in my city?

Regional Roundtable Luncheons, Webinars, City Best Practices Case Studies, City Efficiency Toolkit, Local Government Energy Reporting Assistance, Portfolio Baseline and Benchmarking, Technical Support

## How can my city get involved?

Contact SPEER to set up a brief intake interview OR Attend a regional roundtable luncheon

## Who can join CELC?

Open to staff of any public jurisdiction including city and county governments, public school districts, and other publically funded entities.

**Speaker:** Dub Taylor, Chief Operating Officer  
Texas PACE Authority





# REINVESTING IN COMMUNITIES AND PRESERVING THE ENVIRONMENT WITH PACE

SPEER-CELC Webinar  
May 25, 2022





# DUB TAYLOR – COO, TEXAS PACE AUTHORITY

- Joined the Texas PACE Authority in February 2020, after 21 years as the director of the Texas State Energy Conservation Office (SECO) – part of the Texas Comptroller of Public Accounts
- Managed engineering, technical assistance and energy/water efficiency loan programs for public entities
- Prior to public service, private sector experience was focused on commercial real estate, property appraisal and property tax consulting



# THE PROBLEM...

Business owners know they can save money over the long haul by investing in energy/water saving upgrades to their properties

- Even modest upgrades can be expensive
- Hard to pay those upfront costs given all their other expenses
- Failing equipment is replaced on emergency, piecemeal basis at a premium cost with no systems optimization
- New construction “value” engineering – targets less visible MEP
- Results in higher operating costs, lower building performance, lower asset valuation, indoor comfort challenges, lower productivity

# A SOLUTION...

## PACE = PROPERTY ASSESSED CLEAN ENERGY

Innovative financing tool that provides long term, low cost, 100% funding for energy efficiency, water conservation and distributed generation projects

- Private financing secured by a special property assessment in place over the financing term/useful life of the improvements
  - State Authorized – Local Gov't Code 399 (2013)
  - Local Government Enabled
  - Voluntary & Open Market

### Eligible Property

- Commercial (including non-profit)
- Multi-family (5+ units)
- Industrial (manufacturing/agricultural)





# PACE-ELIGIBLE IMPROVEMENTS

## Projects that reduce energy or water usage or generate energy onsite

### Energy

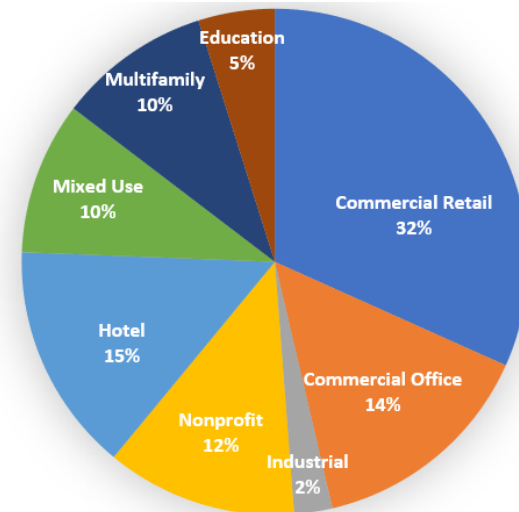
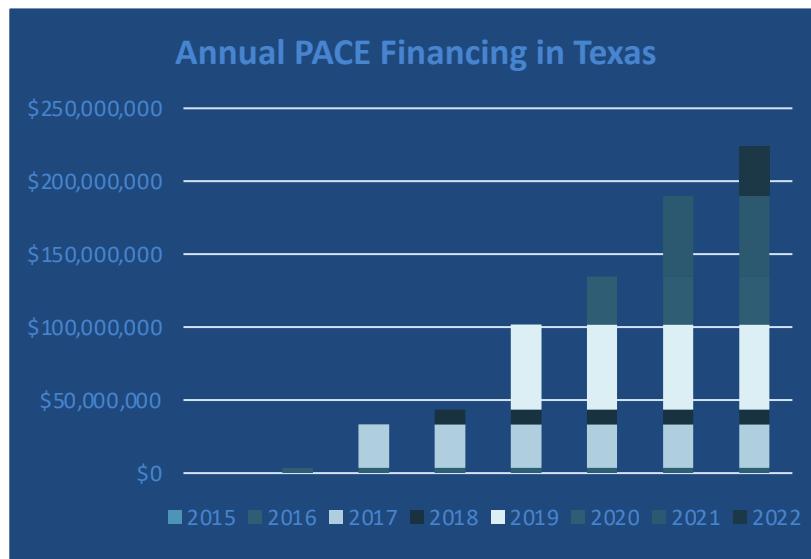
- High efficiency HVAC (AC/chillers, boilers, furnaces, air handlers)
- High efficiency lighting upgrades
- Energy management systems and controls
- Building envelope improvements
- Renewable/DG energy systems
- Mechanical system modernization
- Air cooled systems to water or geothermal cooled systems
- Fuel switching
- Combustion and burner upgrades
- Heat recovery and steam traps

### Water

- High efficiency water heating systems
- Water conservation systems
- Wastewater recovery and reuse systems
- Alternate, on-site sources of water (A/C condensate, rainwater, RO reject water, foundation drain water, etc.)
- On-site improvements to accommodate reclaimed water use
- Water management systems and controls (indoor and outdoor)
- High efficiency irrigation equipment

# TEXAS PACE BY THE NUMBERS

➤ \$223 million of investment to date



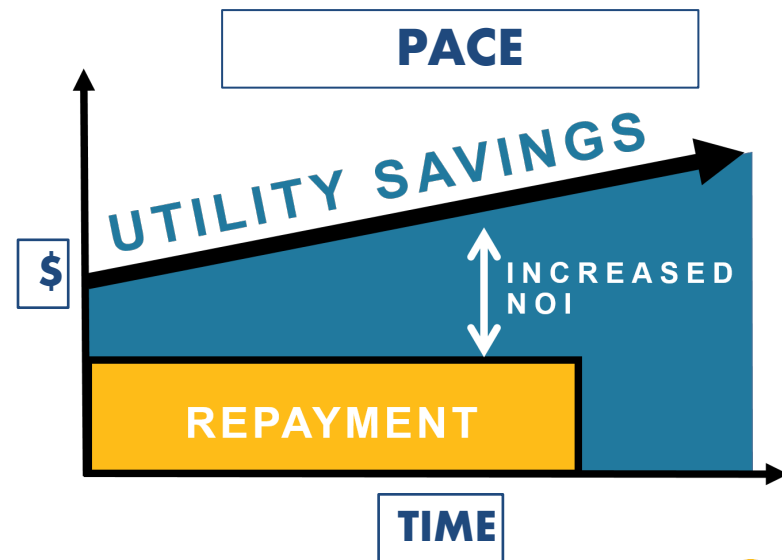
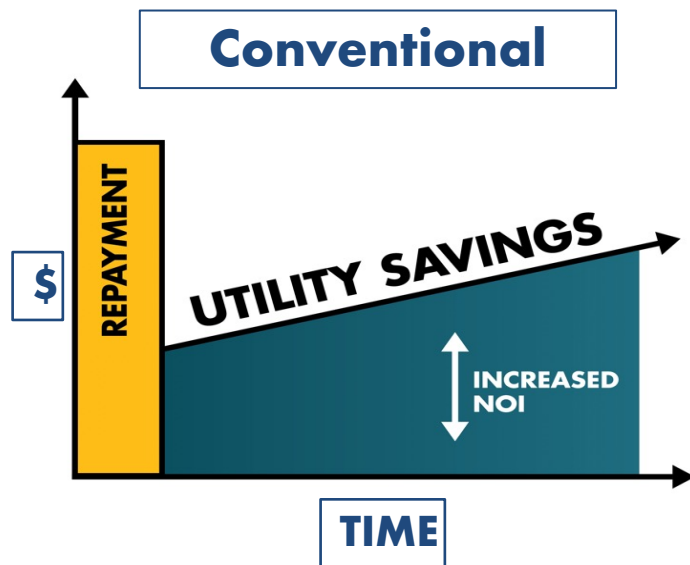
## MEASURE TYPE

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



# WHY PACE?

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



# PACE HELPS OVERCOME INVESTMENT BARRIERS

Investment Barrier	TX-PACE Solution
Upfront capital	No upfront capital needed
Short financing term / long ROI	Funded up to life of equipment (20 years+)
Lack of funding	100% financing – not a personal or business loan
Landlord / tenant split incentives	Can be passed to tenants
Short-term ownership	Stays with the land - is transferred upon sale

# THE GROWING TEXAS PACE MARKET

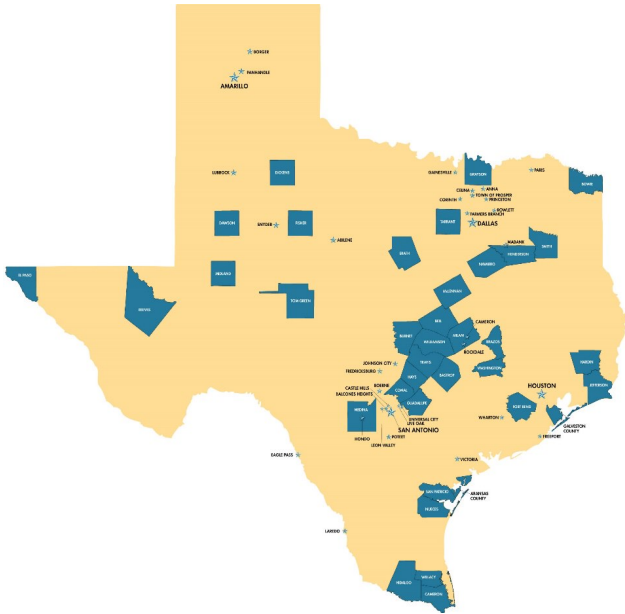
78 local PACE programs    72% of Texas population covered

CITIES THAT HAVE ADOPTED PACE PROGRAMS

Abilene	Alamo Heights	Amarillo	Anna	Balcones Heights	Boerne
Borger	Cameron	Castle Hills	Celina	Corinth	Dallas
Eagle Pass	Farmers Branch	Fredericksburg	Freeport	Gainesville	Hondo
Houston	Jacinto City	Johnson City	Laredo	Leon Valley	Live Oak
Lubbock	Mabank	Panhandle	Paris	Poteet	Port Lavaca
Princeton	Prosper	Red Oak	Rockdale	Rowlett	San Antonio
Snyder	Universal City	Victoria	Wharton		

COUNTIES THAT HAVE ADOPTED PACE PROGRAMS

Aransas	Bastrop	Bell	Bowie	Brazos	Burnet
Cameron	Dallas	Comal	Dawson	Dickens	El Paso
Erath	Fisher	Fort Bend	Galveston	Grayson	Guadalupe
Hardin	Hays	Henderson	Hidalgo	Jefferson	Medina
McLennan	Midland	Milam	Navarro	Nueces	Reeves
San Patricio	Smith	Tarrant	Tom Green	Travis	Washington
Willacy	Williamson				



# LOCAL GOVERNMENT ADOPTION MUNICIPALITY OR COUNTY



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





# PACE – LOCAL GOVERNMENT BENEFITS

- Workforce and economic development
- Improve building stock
- No local government obligation
- Minimal staff support
- Business retention

**Municipalities  
Counties**



**TEXAS PACE  
AUTHORITY**  
501(c)(3)



Governmental

Private



**Capital Providers**



**Property Owners**



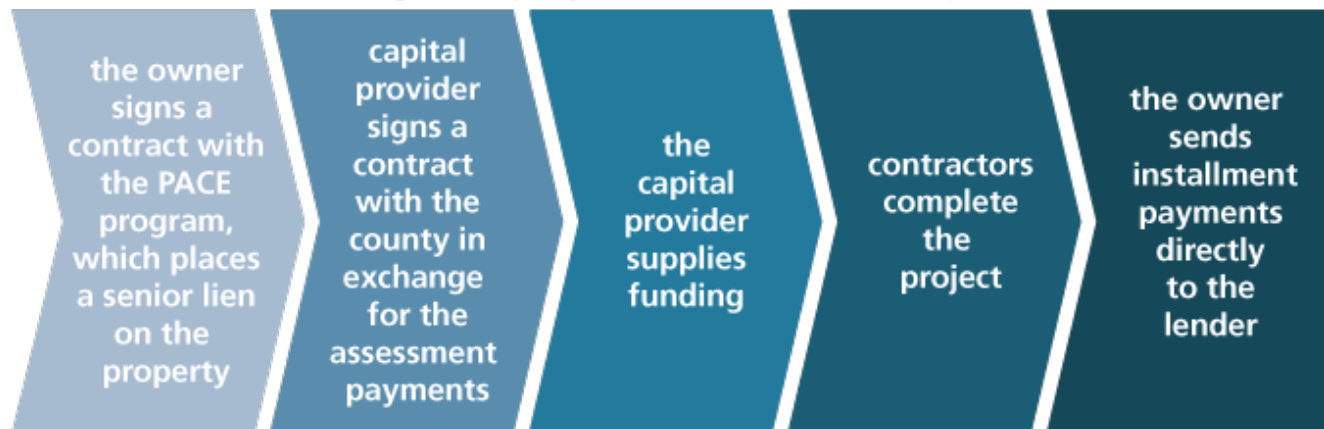
**Service Providers**

# How It Works

## A Building Owner:

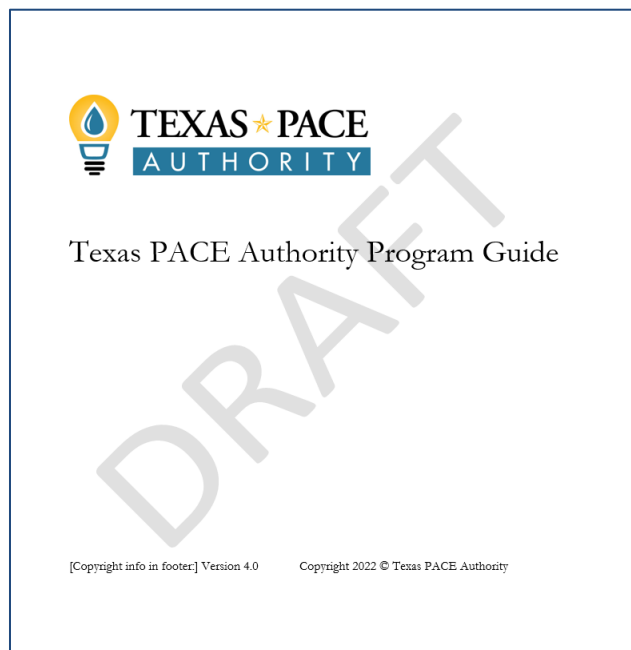
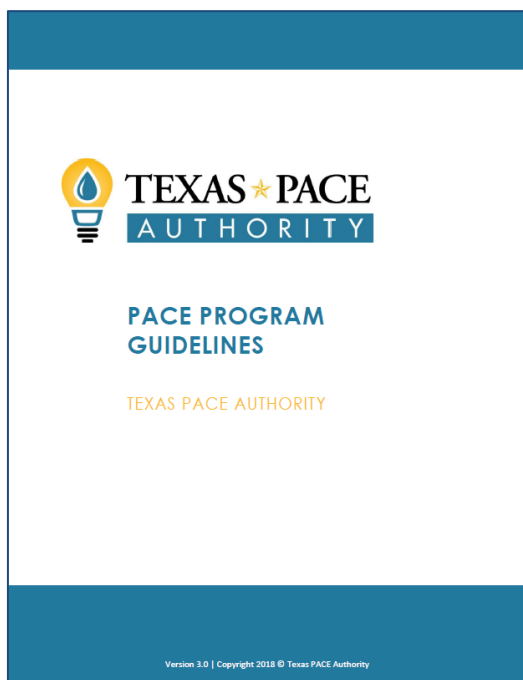


## If the owner, building, and project all meet PACE requirements:



# TPA PROGRAM GUIDE

## UPDATES TO 2018-VERSION 3.0



# TPA PROGRAM GUIDE – VERSION 4.0

## ➤ SECTION I - TPA's PROJECT



# TPA PROGRAM GUIDE – VERSION 4.0

## ➤ SECTION I - TPA's PROJECT DEVELOPMENT PROCESS

### ➤ Key Updates

- Redevelopment
- Lookback
- LTV now 25%
- SIR  $\geq$  50% savings energy/water related



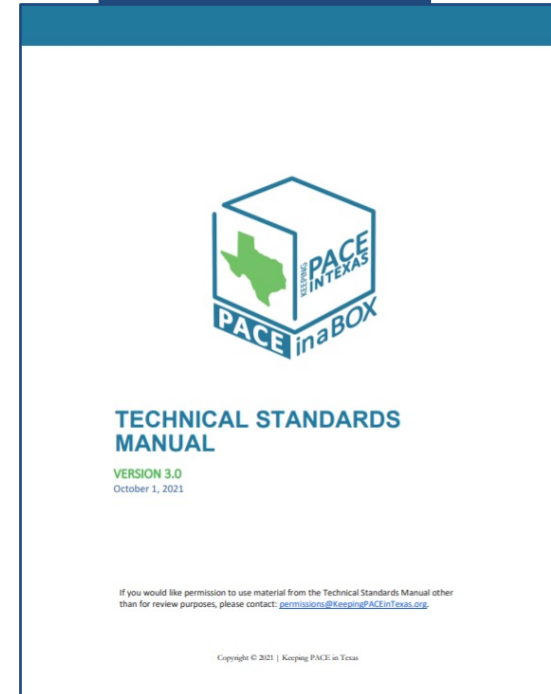
# TECHNICAL STANDARDS

- **Based on Nationally Accepted Standards**

- 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)

- **Independent Third Party Reviewer (ITPR) - Qualifications**

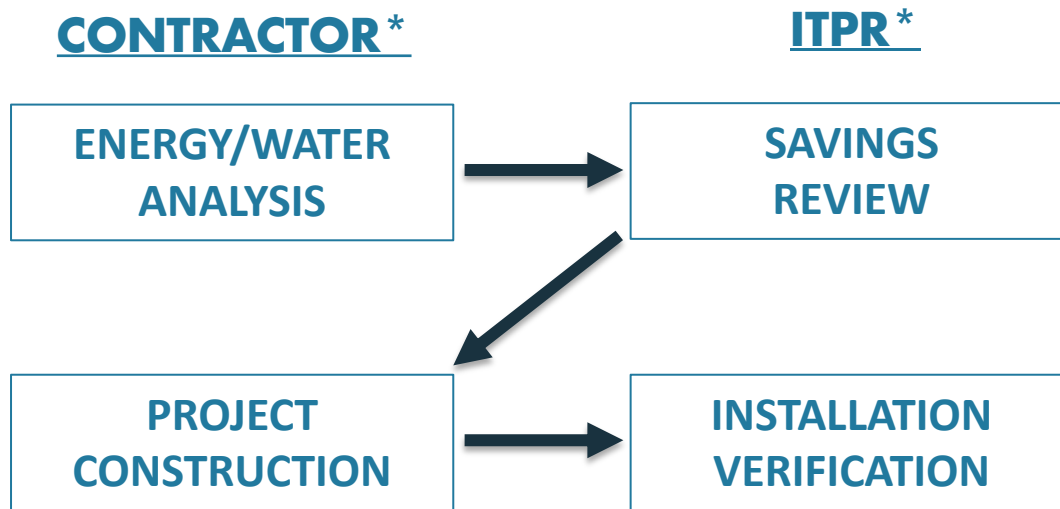
- Texas-licensed Professional Engineer with energy/water efficiency experience
- Preferred certifications: ASHRAE, AEE, Building Commissioning Association



<https://www.texaspaceauthority.org/Documents/Program%20Guide.pdf?dl=0>



# THE PACE PROCESS – PROJECTS



\* Owner-selects Contractor and ITPR

# SERVICE PROVIDER TRAINING - Preview

## ➤ **Online Training Modules**

- 1) About PACE
- 2) Standards and Guidance
- 3) Assembling a Project

## ➤ **Recorded Video for Each Module**

## ➤ **Training Quiz – 25 questions**

- 80% = Passing
- Trained Service Provider Listing and Logo/Badge



# TX-PACE PROJECT DIVERSITY

- 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



# CONGREGATION BETH ISRAEL

## Austin / Travis County



### Measures:

- HVAC
- BAS controls
- Window film

**Utility Incentives:**  
\$11,000

**Assessment Total:**  
\$452,105

**Utility Savings:**  
20% Annually



# 1225 NORTH LOOP WEST

## Houston



### Measures:

- HVAC
- BAS
- LED lighting

### Utility Incentives:

\$30,000

### Assessment Total:

\$1,304,352

### Utility Savings:

38% Annually





# BUTLER BROTHERS BUILDING - DALLAS



## Measures:

- HVAC
- Lighting
- Insulation, roof
- Windows
- Plumbing fixtures

## Incentives:

\$21 million

Historic Tax Credits

## Assessment Total:

\$23.9 million

## Annual Utility Savings: 40%

Electric: 6.6 million kWh

Water: 700K gallons



# PEARL POINT APARTMENT HOMES

## Rockport / Aransas County



### Measures:

Above-code

- Lighting
- Plumbing fixtures
- Building envelope
  - Windows
  - Wall insulation
  - Roof insulation

### Assessment Total:

\$2.75 million

### Annual Utility Savings:

Electric: 926,000 kWh

Water: 3.2 million gallons



# BARFIELD BUILDING

## City of Amarillo

### Measures:

- Ductless VRF HVAC
- Low voltage LED lighting
- Building envelope
- Water efficiency
- Domestic water heating

### Historic Tax Credit financing:

\$9,050,551

### Assessment Total:

\$6,471,443

### Total Savings:

Electric: 73%

Gas: 79%

Water: 60%

MARRIOTT  
BONVOY



BARFIELD  
AUTOGRAPH COLLECTION  
HOTELS

TEXAS PACE  
AUTHORITY

**SPEER**   
The South-central Partnership for Energy Efficiency as a Resource

# PACE is a WIN-WIN-WIN (WIN-WIN)

- ✓ **Property Owners** – lower utility bills, energy independence, energy efficiency, property value increase
- ✓ **Contractors** – source of increase in business, more local hiring, best practices, keeping up with technology advancements
- ✓ **Lenders** – new loans, steady & stable process, fully collateralized, Tax Assessment lien position, improved asset value
- ✓ **State of Texas** – reduced peak demand, enhanced grid reliability, distributed generation as resilient power source, improved air quality, water resource conservation
- ✓ **Communities** – increased economic development and jobs, improved building infrastructure, more appealing building stock and plants

# RESOURCES

- **Texas PACE Authority:** [www.texaspaceauthority.com](http://www.texaspaceauthority.com)
- **TX-PACE Program Guide and Technical Standards**  
[www.texaspaceauthority.org/Documents/Program%20Guide.pdf?dl=0](http://www.texaspaceauthority.org/Documents/Program%20Guide.pdf?dl=0)
- **Events and Training – (Online Contractor Training Soon!)**  
[www.texaspaceauthority.org/event-directory](http://www.texaspaceauthority.org/event-directory)
- **Case Studies**  
[www.texaspaceauthority.org/resources/case-studies-marketing/](http://www.texaspaceauthority.org/resources/case-studies-marketing/)
- **Service Provider Directory**  
<https://www.texaspaceauthority.org/service-provider-directory/>

# QUESTIONS?

**Dub Taylor, COO**

[dub@texaspaceauthority.org](mailto:dub@texaspaceauthority.org)



[www.texaspaceauthority.org](http://www.texaspaceauthority.org)



# Questions

- Shaun Auckland,
  - Local Government Program Manager, SPEER
  - [sauckland@eepartnership.org](mailto:sauckland@eepartnership.org)

# Resources

- SPEER [YouTube Channel](#)

- CELC Upcoming Events

[www.eepartnership.org](http://www.eepartnership.org)



The South-central Partnership for Energy Efficiency  
as a Resource

**CELC** City Efficiency  
Leadership Council

