

TEXAS PACE

AUTHORITY



2021 Annual Report

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President's Letter

TX-PACE promotes both environmental and economic public benefits for Texas communities by creating a voluntary, affordable way for businesses to stop wasting energy and water and start increasing operating income. The need to reduce natural resource demand in our built environment was painfully realized during the February 2021 storm, Uri. Investors’ and tenants’ environmental, social and governance (ESG) demands add increasing pressure to the commercial real estate industry’s growing focus on controlling operating costs and improving resiliency.

Six years of Texas PACE Authority’s long-term, servant leadership commitment forged a path for success at this junction of need and opportunity. As we enter our third year of the COVID pandemic, I remain encouraged by the resiliency of the Texas real estate market in the face of health, labor, supply, and other insecurities. 2021 reminds us that reducing energy and water demand in our commercial and industrial spaces results in essential year-round resiliency for these properties and frees up life-saving supply in their communities.

As 2021 demonstrated for the sixth straight year, the TX-PACE program works. Texas PACE Authority (TPA) continued to expand its service to additional local governments as more projects were successfully executed. Each additional project enhanced a local community with economic growth, environmental improvements, and a resulting reduction in natural resource demand. As market expansion and project growth continue at an increasing pace (pun intended), TPA aggressively continued its evolution from a startup nonprofit into a self-sufficient administrator of Texas PACE programs while maintaining transparent, high quality public service at the lowest possible cost.

This report looks back at these 2021 commitments and advancements. The Texas PACE Authority team looks forward to working with each of you in 2022 to make more Texas businesses and nonprofits more resilient to operational costs, power losses, droughts, and the evolving impacts of the pandemic through PACE property improvements that are also at the heart of the ESG movement.

Charlene Heydinger

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Texas PACE Authority Leadership



Steve Block, Secretary, retired; formerly Partner, real estate and banking law, Thompson & Knight, LLP



Carlton Schwab, President and CEO, Texas Economic Development Council



Michael Gromacki, Director, Global Wind and Composite Systems, Olin; formerly, President, Dixie Chemical



Hon. Penny Redington, retired; formerly ED, Texas Association of Regional Councils; Leg. Liaison, Texas Association of Counties; and Ellis County Judge



Hon. John Hall, President and CEO, Houston Advanced Research Center (HARC); formerly Associate VP, Environmental Defense Fund (EDF); and Chairman, Texas Water Commission and the Texas Natural Resource Conservation Commission (predecessor agencies to the Texas Commission on Environmental Quality)



Charlene Heydinger, President, Texas PACE Authority; formerly Executive Director, Topfer Family Foundation, VP & Washington Council, Capital Cities, ABC Inc.; and General Council to Hon. Robert H. Michel, US House Republican Leader



Patrick Worrall, VP Asset Marketplace, LevelTen Energy; formerly Interim Head of Debt Capital Markets, Sunnova Energy; S.V.P Finance & Strategy, Extol Energy, Principal, Scanden; and Director, Constellation Energy

Board of Directors



Charlene Heydinger, President



Autumn Radle, Program Manager



Dub Taylor, Chief Operating Officer



James Cargas, Counsel



Marina Badoian-Kriticos, Senior Program Advisor



Deborah Camp, Art Director



Amy Vanderbilt, Operations and Compliance Manager



Jonathon Blackburn, Technical Advisor

Texas PACE Authority Team

“Sustainability... is about creating a Texas where people, the economy, and the environment can thrive for the next 100 years and beyond. Clean air. Clean and available water. Thriving ecosystems. Responsible energy production. Equal opportunity for everyone,”

John Hall, Houston Advanced Research Center (HARC) President and CEO and TPA board member

Statement of Principles

What is PACE

Property Assessed Clean Energy (TX-PACE) is a proven financial tool that incentivizes Texas’ property owners to upgrade facility infrastructure with little or no capital outlay. Approved by State legislation in 2013 and established by local governments, TX-PACE programs enable owners to lower their operating costs and use the savings to pay for eligible water conservation, energy efficiency, resiliency, and distributed generation projects. Owners gain access to private, affordable, long-term (typically 10-20 years) financing that is not available through traditional funding avenues. Texas PACE Authority (TPA) administers PACE programs at no cost to local governments.

When businesses and nonprofit organizations make energy and water saving improvements to commercial, industrial, and multifamily properties, they not only reduce operating costs and increase property value, but they also contribute economic and environmental benefits to their communities, and help make these communities more resilient, healthy, and sustainable.

Who We Are

Texas PACE Authority (TPA) is a nonprofit organized under Section 501(c)(3) of the Internal Revenue Code. TPA was established exclusively to operate PACE programs for local governments across Texas, and now administers PACE programs for 71 Texas cities and counties.

In providing this outsourced governmental function, TPA offers the highest levels of service, transparency, and ethics at the lowest cost possible. TPA-administered PACE programs are revenue neutral to each local government it serves.

TPA's Experience

TPA’s team of policy, legal, technical, sustainability, and operations experts has an unmatched combined 68 years of public service employment at the local, state, and federal government levels. We know firsthand the challenges and expectations public officials face.

TPA’s expertise is respected nationwide and worldwide. As other states initiate and update commercial PACE programs, representatives often consult TPA for guidance. In 2021, this list included representatives from Alabama, Alaska, Illinois, Kansas, Louisiana, Maryland, Montana, North Carolina, Oklahoma, Oregon, Rhode Island, Tennessee, and Virginia. TPA also assisted representatives from India and Alberta, Canada.

TPA's Performance

At the close of 2021, TPA facilitated the cumulative investment of \$190 million through PACE financing across Texas. From its inception, TPA has strictly adhered to the guidance provided by Keeping PACE in Texas’ PACE in a Box Working Groups, found at <https://www.keepingpaceintexas.org/library/document-library>.

TPA follows a thorough and thoughtful project review process that is charted in the Texas [PACE Authority Program Guide](#)© provided in English and Spanish on the TPA Website for PACE project stakeholders and the local governments TPA serves.

Statement of Principles

TPA is User Friendly and Transparent

Texas PACE Authority provides uncompromised administrative oversight and does not compete in the marketplace it oversees on behalf of local governments. Stepping into the shoes of each local government, TPA will not serve as the lender, engineer, or any other party to the transaction. And no TPA affiliates or team members do so either. TPA is fully committed to ethics and transparency, engaging a firewall between TPA and the free market competition in project development. TPA acts neutrally in its interactions with market competitors – treating market stakeholders fairly and objectively.

TPA also serves the local government by providing education, outreach, and training. TPA is committed to ensuring that TX-PACE is available to all local businesses and organizations regardless of size or location. Educational materials are provided in English and Spanish, and TPA’s website can be translated into Spanish with the click of a button.

TPA Promotes Uniformity

All local governments establishing TX-PACE programs administered by TPA have uniform programs of best practices, benefiting stakeholders statewide. Property owners such as JMK5 Holdings LLC, and Simon Property Group, each using the TX-PACE program to update a half dozen properties in multiple jurisdictions, benefit from efficiencies stemming from uniform best practices and standardized documents.

TPA is Scalable

The ability of Texas PACE Authority to use one common, efficient overhead structure to serve 70 local governments significantly reduces costs by avoiding unnecessary duplication of services. This scalability enables TPA to control costs and minimize administrative fees. The use of uniform processes and documents furthers TPA’s efficiency and effectiveness throughout the state. Scalability ultimately lowers transaction costs. Once contractors, capital providers, architects, property managers, and other stakeholders understand one local program, that knowledge base can be applied to all other TPA administered TX-PACE programs across the state.

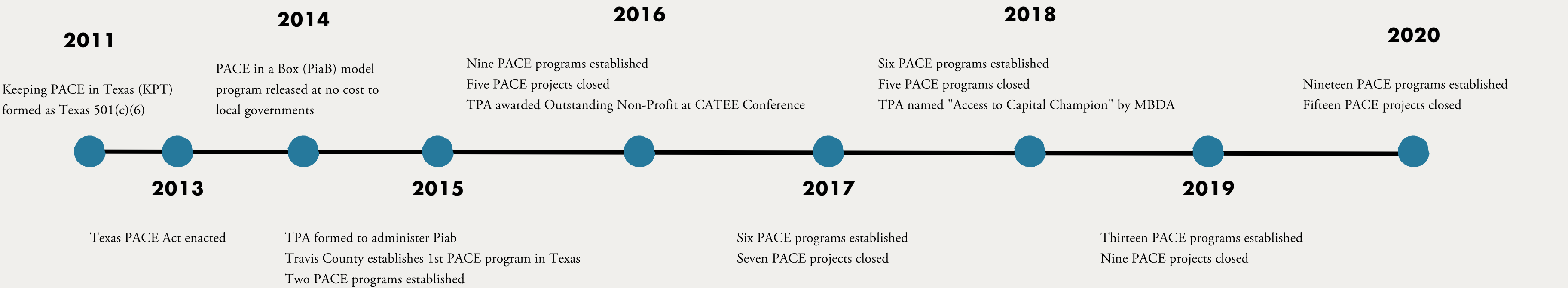
TPA is Sustainable

As a nonprofit, TPA has reduced its fees several times over the last five years and will continue to find operational efficiency and scaling opportunities, and then pass the savings on to the property owners. In this way, TPA offers the highest quality PACE administration at the lowest cost possible. Additionally, low transaction costs enable more stakeholders to participate, especially small and minority-owned businesses and nonprofits.

“The Texas PACE Program has been instrumental in allowing JMK5 Holdings to grow and develop at the rate in which it has. JMK5 Holdings specializes in repurposing old vacant buildings, and turning them into beautiful, energy efficient and thriving buildings, which house a myriad of businesses. The program, and specifically, the financing we have obtained through Greenworks Lending from Nuveen [now Nuveen Green Capital], has allowed our vision to come to fruition, and we are thrilled at what is to come. Thank you to the Texas PACE Program, Greenworks Lending from Nuveen, and all those involved in assisting JMK5 Holdings secure this imperative financing, that was instrumental in revitalizing deplorable buildings, bringing jobs to the community, and allowing JMK5 Holdings to grow.”

Jerome Karaam, President and CEO of JMK5 Holdings LLC

A Brief History of Texas PACE Authority



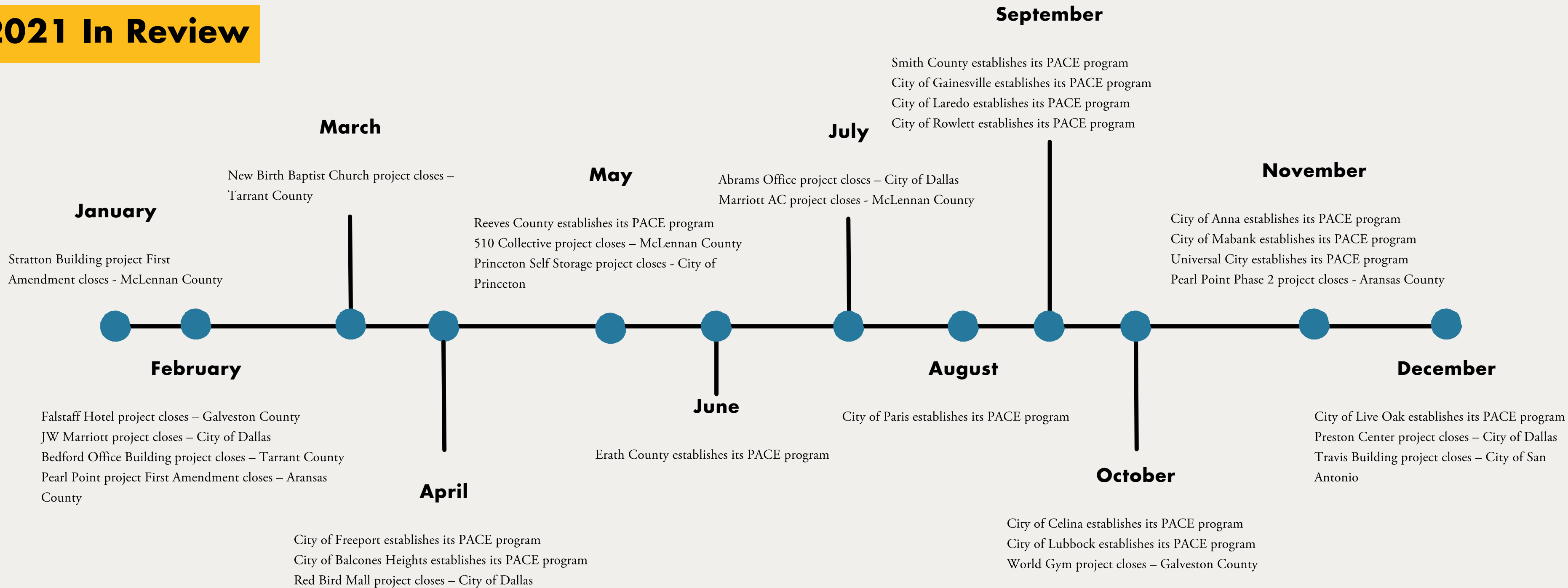
Travis County Tax Assessor/Collector Bruce Elfant signing a Notice of Assessment (2016)

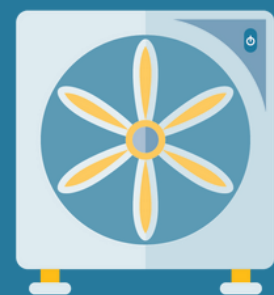
Left to Right: Commissioner Gerald Daugherty, Precinct 2; Tax Assessor/Collector Bruce Elfant; Craig Smith, Assistant County Attorney - Tax; Johnathon Blackburn, TPA; Charlene Heydinger, TPA



The Tarrant County Sinclair Hotel project closes in December, 2020 (Fort Worth)

2021 In Review

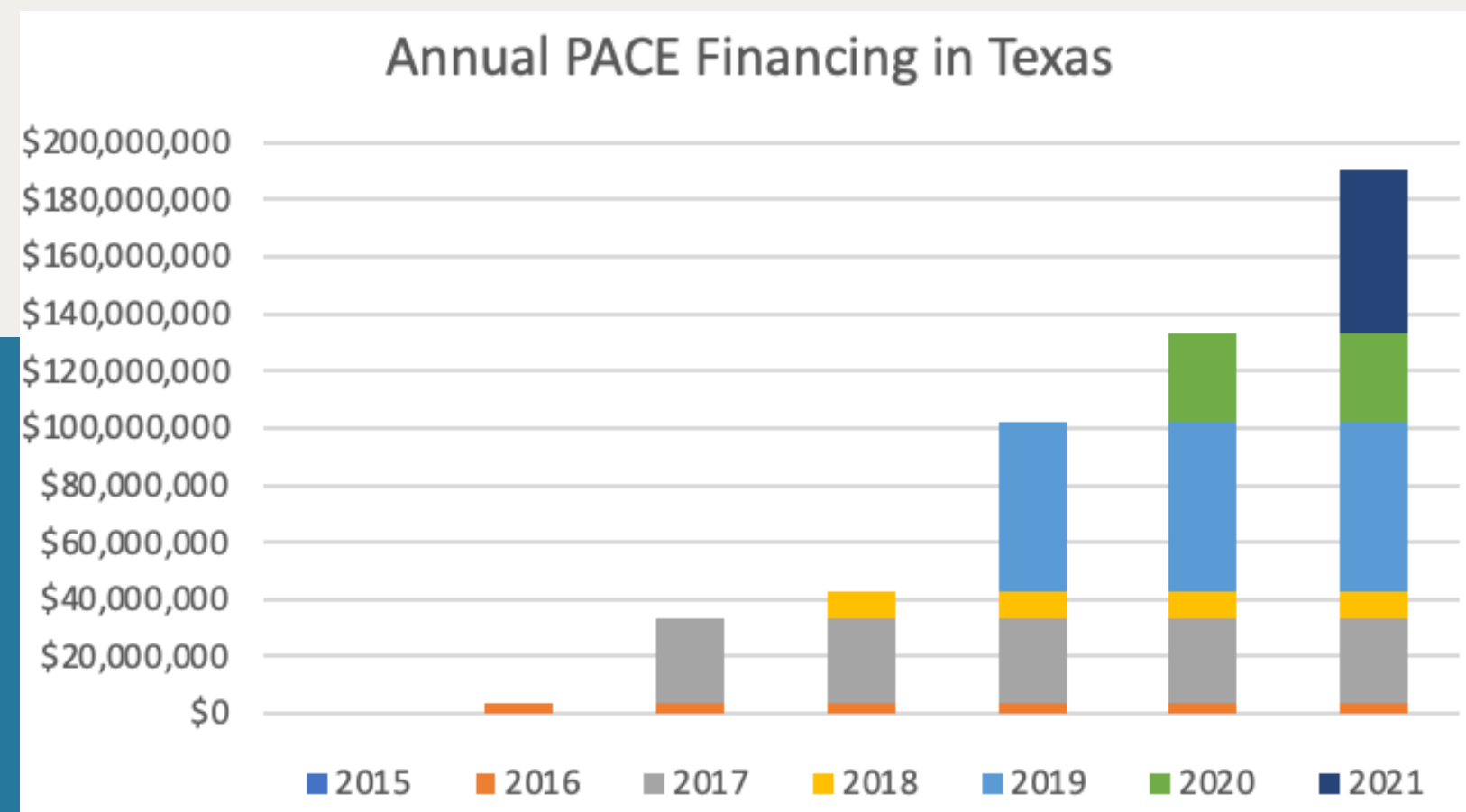




Cumulative Impact

Since its formation in 2015, TPA has facilitated more than \$190 million in clean energy and water saving investment in commercial buildings across the state. Projects range from \$70,000 to \$24 million and are located in urban and rural communities throughout Texas.

Seventy-one local governments have now established TX-PACE programs to enable their businesses and nonprofits to access TX-PACE financing for property upgrades resulting in energy and water efficiency, and onsite generation. These improvements reduce operating costs and often also increase property resiliency and safety. Local communities benefit from economic growth, reduced energy and water demand, and redevelopment of older buildings.



Despite a two-year pandemic, the Texas PACE market continues to grow. In 2021, nine communities benefited from 15 PACE-financed energy and water saving investments totaling \$56,843,340 in property improvements benefiting a wide variety of property types.

“With thousands of people moving to Texas every week, the state’s water challenges are not going away. Water reuse has proven it can play a key role in meeting future water needs, but only if we find ways to scale these projects exponentially. PACE financing is key to bringing water reuse to scale across the state.”

Sharlene Leurig, CEO, Texas Water Trade



2021 Impact Projects

Aransas County

Pearl Point Phase I, First Amendment (Rockport)

- Multifamily
- PACE Assessment: \$4,000,000
 - Original in 2020: \$2,754,944;
 - Additional in 2021: \$1,245,056
- Qualified Improvements: Building Envelope, Lighting, Water
- Annual Benefits:
 - Energy Savings: 925,680 kWh
 - Water Savings: 3,226,000 gallons
 - Avoided CO2: 482 tonnes



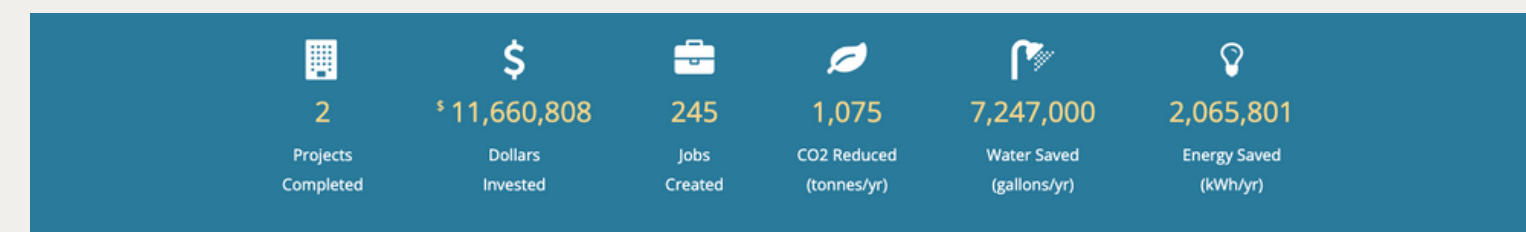
Pearl Point Phase I

Pearl Point Phase II (Rockport)

- Multifamily
- PACE Assessment: \$7,660,808
- Qualified Improvements: Building Envelope, Lighting, Water
- Annual Benefits:
 - Energy Savings: 1,140,121 kWh
 - Water Savings: 4,021,000 gallons
 - Avoided CO2: 593 tonnes



Pearl Point Phase II



Aransas County cumulative PACE project impact

City of Dallas

JW Marriott

- Hospitality
- PACE Assessment: \$5,059,884
- Qualified Improvements: Building Envelope, HVAC, Lighting, Plumbing, Elevator
- Annual Benefits:
 - Energy Savings: 448,135 kWh
 - Water Savings: 577,000 gallons
 - Natural Gas Savings: 350,000 BTU
 - Avoided CO2: 252 tonnes



JW Marriott

Red Bird Mall

- Mixed Use
- PACE Assessment: \$3,350,000
- Qualified Improvements: Lighting, HVAC, Plumbing
- Annual Benefits:
 - Energy Savings: 673,784 kWh
 - Water Savings: 3,420,000 gallons
 - Avoided CO2: 351 tonnes
- [Case study available here](#)



Red Bird Mall



City of Dallas cumulative PACE project impact

Abrams Office Building

- Office
- PACE Assessment: \$496,383
- Qualified Improvements: HVAC
- Annual Benefits:
 - Energy Savings: 596,499 kWh
 - Avoided CO2: 310 tonnes

Preston Center

- Mixed Use
- PACE Assessment: \$2,925,880
- Qualified Improvements: Building Envelope, HVAC, Lighting, Plumbing
- Annual Benefits:
 - Energy Savings: 1,813,002 kWh
 - Avoided CO2: 943 tonnes

2021 Impact Projects

Galveston County

Falstaff Hotel (Galveston Island)

- Hospitality
- PACE Assessment: \$5,622,500
- Qualified Improvements: Building Envelope, Electrical/Lighting, HVAC, Plumbing
- Annual Benefits:
 - Energy Savings: 952,039 kWh
 - Water Savings: 1,022,000 gallons
 - Avoided CO2: 495 tonnes



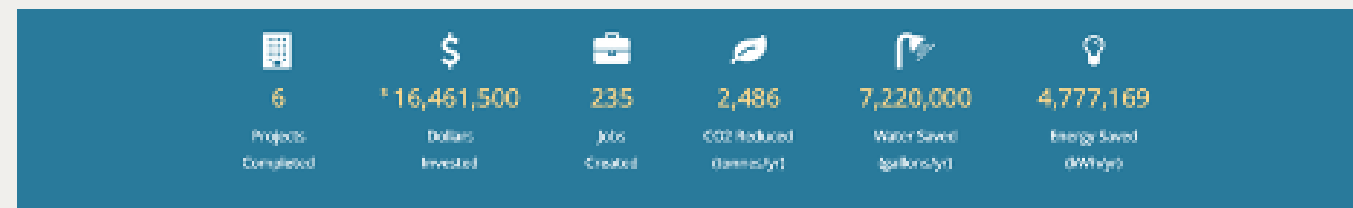
Falstaff Hotel

World Gym (Texas City)

- Retail
- PACE Assessment: \$3,075,000
- Qualified Improvements: Building Envelope, Electrical/Lighting, HVAC, Plumbing
- Annual Benefits:
 - Energy Savings: 1,216,885 kWh
 - Water Savings: 1,266,000 gallons
 - Avoided CO2: 633 tonnes



World Gym



Galveston County cumulative PACE project impact

McLennan County

Stratton Building First Amendment (Waco)

- Mixed Use
- PACE Assessment: \$1,625,000
 - Original in 2020: \$1,300,000;
 - Additional in 2021: \$325,000
- Qualified Improvements: Mechanical, Lighting, Roofing, Water
- Annual Benefits:
 - Energy Savings: 561,203 kWh
 - Water Savings: 292,000 gallons
 - Natural Gas Savings: 162 BTU
 - Avoided CO2: 301 tonnes



Stratton Building



Marriott AC

510 Collective (Waco)

- Office
- PACE Assessment: \$2,442,815
- Qualified Improvements: Building Envelope, HVAC, Lighting, Elevator, Plumbing
- Annual Benefits:
 - Energy Savings: 327,162 kWh
 - Water Savings: 1,469,000 gallons
 - Natural Gas Savings: 664,000 BTU
 - Avoided CO2: 205 tonnes
- [Case study available here](#)



510 Collective

Marriott AC (Waco)

- Hospitality
- PACE Assessment: \$16,000,000
- Qualified Improvements: Lighting, Roof, Insulation, Windows, HVAC, Plumbing, Elevators, Solar Panels, Commercial Equipment/Appliances
- Annual Benefits:
 - Energy Savings: 2,442,349 kWh
 - Water Savings: 869,000 gallons
 - Natural Gas Savings: 2,361,000 BTU
 - Avoided CO2: 1,396 tonnes



McLennan County cumulative PACE project impact

2021 Impact Projects

City of Princeton

Princeton Self Storage

- Warehouse
- PACE Assessment: \$2,895,206
- Qualified Improvements: Building Envelope, Mechanical/HVAC, Electrical, Plumbing
- Annual Benefits:
 - Energy Savings: 109,708 kWh
 - Avoided CO2: 99 tonnes



Princeton Self Storage

City of San Antonio, part of the AACOG Regional PACE Program

Travis Building

- Mixed Use
- PACE Assessment: \$5,092,684
- Qualified Improvements: Building Envelope, Roof, Electrical/Lighting, HVAC, Plumbing
- Annual Benefits:
 - Energy Savings: 396,298 kWh
 - Water Savings: 702,000 gallons
 - Natural Gas Savings: 233,000 BTU
 - Avoided CO2: 219 tonnes

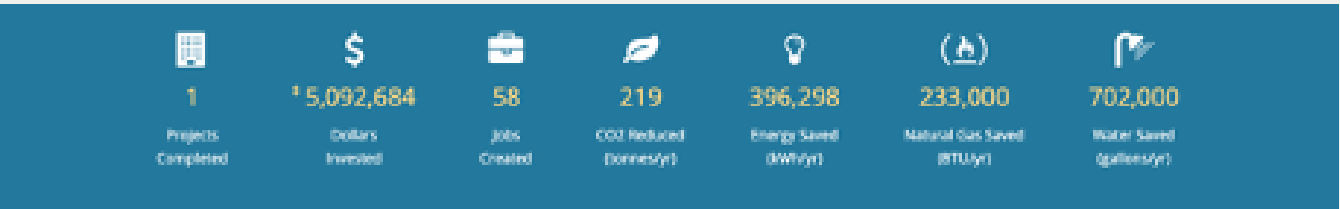


Travis Building

“This first PACE project aligns with SA Climate Ready. In fact, City Council’s establishment of PACE was one of the first strategies implemented from that plan. We’re thrilled that the TX-PACE program is in San Antonio and that we have our first project on the books.”

“PACE provides our business community with new opportunities to finance retrofits and implement sustainable practices in a manner that saves money and creates jobs. This is an imperative step in building a city that is competitive, resilient, and most importantly, climate ready.”

Doug Melnick, City of San Antonio Chief Sustainability Officer



San Antonio cumulative PACE project impact

Tarrant County

Bedford Office Building (Bedford)

- Office
- PACE Assessment: \$499,994
- Qualified Improvements: HVAC, Building Controls, Lighting,
- Annual Benefits:
 - Energy Savings: 83,753 kWh
 - Avoided CO2: 44 tonnes



Bedford Building

New Birth Baptist Church (Fort Worth)

- Religious Nonprofit
- PACE Assessment: \$152,130
- Qualified Improvement: Solar PV
- Annual Benefits:
 - Energy Savings: 71,448 kWh
 - Avoided CO2: 37 tonnes



New Birth Baptist Church



Tarrant County cumulative PACE project impact



City of Princeton cumulative PACE project impact

2021 Impact: Market Growth

Fifteen local governments established new TX-PACE programs in 2021 and selected TPA as program administrator. This continued growth brings TPA’s public servant leadership to seventy local governments. Each local government served by TPA has its own unique landing page on the TPA website that tracks local PACE project impact and other local PACE information.TPA welcomes the following local governments establishing new TX-PACE programs in 2021:



Counties

- Erath County, June 2021
- Reeves County, May 2021
- Smith County, September 2021

Cities

- Anna, November 2021
- Balcones Heights (AACOG), April 2021
- Celina, October 2021
- Freeport, April 2021
- Gainesville, September 2021
- Laredo, September 2021
- Live Oak (AACOG), December 2021
- Lubbock, October 2021
- Mabank, November 2021
- Paris, August 2021
- Rowlett, September 2021
- Universal City (AACOG), November 2021



Graphics courtesy of Deborah Camp

Above: All cities and counties with established PACE programs

Right: Evolution of Texas PACE programs

2021 Impact: Market Growth

Regional TX-PACE Impact and Working with TCEQ

Regionally, TPA is proud to partner with the Alamo Area Council of Governments (AACOG) <https://www.aacog.com/735/Texas-Property-Assessed-Clean-Energy-PAC> in providing PACE services to 13 of AACOG's member local governments. In December, the first AACOG regional PACE program project closed in San Antonio.

"PACE is a critical aspect of our regional approach to energy efficiency and clean air. The interest our property owners have expressed in having an innovative financing tool that enables them to improve their buildings and increase energy efficiency has been tremendous."

Diane Rath, Executive Director, Alamo Area Council of Governments

The Lower Rio Grande Valley Development Council (LRGVDC) serves its three member counties.

With the help of the Texas Commission on Environmental Quality (TCEQ), TPA was able to collaborate with four councils of government along the border with Mexico to promote TX-PACE in virtual forums:

- Lower Rio Grande Valley Development Council (LRGVDC),
- South Texas Development Council (STDC),
- Middle Rio Grande Development Council (MRGDC), and
- Rio Grande Council of Governments (RGCOG).

TCEQ also provided funding for the translation of 2021 flyers and case studies found at <https://www.texaspaceauthority.org/resources/education> and <https://www.texaspaceauthority.org/resources/case-studies-marketing>.

On September 7, 2021, the City of Laredo became the 6th border community to establish a TX-PACE program.

This avenue for expanding TX-PACE to more Texans is currently being explored by the North Central Texas Council of Governments (NCTCOG), which represents local governments in the populous DFW area.



2021 Capital Provider Market Development Impact

Two significant acquisitions in the commercial PACE capital provider space in 2021 demonstrate how attractive the PACE projects are for long-term investors. In February 2021, Nuveen, a leading global investment manager, announced its decision to acquire Greenworks Lending, a national Commercial Property Assessed Clean Energy (C-PACE) capital provider. In December 2021 Athene, an industry-leading financial services company focused on retirement savings solutions, purchased Petros PACE Finance. Both acquisitions are steps in the development of a vibrant, mainstreamed secondary market for TX-PACE financing projects financed by local lenders. TPA is committed to supporting the maturing and securitization of PACE financing through its consistent, transparent, rigorous yet streamlined review process that investors find essential to stable markets.

2021 was a year of internal development and opportunity for TPA. As the market advances both geographically and in project volume, TPA stepped up to the challenges of administering more programs, approving more projects, and improving the quality and sophistication of its services as it matures as an organization all in step with its public service ethic.

Austin Technology Incubator, Venture Mentoring Service

TPA grew immensely as an organization in 2021 with the guidance and high level expectation setting of highly successful mentors in the Texas Venture Mentoring Service under the umbrella of the [Austin Technology Incubator \(ATI\)](#).

Founded in 1989, ATI is a deep tech incubator affiliated with The University of Texas at Austin that serves student and faculty entrepreneurs and community founding teams to explore deep technology solutions that address the world's challenges. Through deep engagement and deep connections, we help our member companies commercialize their breakthrough innovations – contributing to The University of Texas at Austin's promise of "what starts here changes the world." With ATI's assistance, 300 startup companies raised more than \$1.7 billion with an economic impact exceeding \$3 billion.

TEXVMS Mission Statement:

TEXVMS is an organization formed to support entrepreneurial activity within the UT Austin community and the Central Texas region and, thereby, to further the educational mission of UT Austin. TEXVMS believes that the active support of entrepreneurial activities improves the education of those in both the UT Austin community, and the Central Texas regional community, strengthens UT Austin's role as a world leader in innovation and broadens UT Austin's academic, teaching, research, and public service missions.

Despite TPA's nonprofit status, the organization was selected by ATI to participate in its [Venture Mentoring Service \(TEXVMS\)](#). After a presentation to the highly successful business executives who make up the TEXVMS volunteer pool, TPA was honored to be selected and gain access to an amazing cadre of mentors. TPA's purpose to support business investment in making property more energy and water efficient is a good, if unique, fit with ATI's purpose. TPA's success can vastly expand the ability of businesses and nonprofits throughout Texas to become efficient and resilient while reducing operating costs.

In December 2020, The ATI VMS team held its inaugural meeting with TPA. Over the year, the VMS team learned about TPA and began to increase the sophistication of its counsel and its level of expectation to guide TPA in analyzing its growth requirements for success and to marshal the necessary resources on all levels while keeping true to its commitment to provide TX-PACE administration as a public service at the lowest possible cost.

2021 TPA Organizational Impact

Environmental, Social, and Governance (ESG)

The relevance of the TX-PACE program only increases as real estate investors address the risk of climate change, the impacts of COVID on real estate, and the increasing prominence of environmental, social, and governance (ESG) requirements of investors and tenants.

Energy and water conservation and onsite generation enabled via increased cash flow through the TX-PACE program makes TX-PACE an ESG tool without comparison. TPA's transparent and public service model in the delivery of PACE to Texas property owners makes tremendous sense - once property owners discover PACE benefits. TPA will continue to work with local governments, sustainability professionals, and economic development experts and organizations to make the TX-PACE program a top of the list solution and resource.

Education and Outreach

Keeping with COVID health protocols, TPA continued to provide virtual education and outreach events as listed in the Community Engagement section. Stakeholders can now view a multitude of topics on the [TPA YouTube Channel](#), which currently contains 34 educational videos. TPA's Third Thursday at Two Training (T5) Workshops provide monthly educational training and outreach on the third Thursday of the month.

The Amarillo Barfield Hotel PACE Forum was a day-long, in person event showcasing the Amarillo PACE program through presentations, workshops, and a tour of the historic Hotel with its owner. The October Forum highlighted the outcomes of the \$7.3 million PACE assessment that filled out the capital stack necessary to bring the vacant, historic building back to life as the Barfield Hotel, an energy and water efficient jewel in the Texas panhandle.



Implementation of 2021 Keeping PACE in Texas’ PACE in a Box Underwriting and Technical Guidance

The Texas Legislature in 2013 enabled cities and counties to establish TX-PACE programs. Because there was no designated regulatory agency to establish rules, a group of 130 volunteers established a model program of best practices for local governments called PACE in a Box. These volunteers broke into five working groups and invested more than a year in volunteer time and expertise to create the uniform model program of best practices. The program requires a regular feedback and improvement process to address evolutionary programmatic improvements and market changes.

The Keeping PACE in Texas board of directors called on the Underwriting Working Group and the Technical Standards Working Group to review provisions of PACE in a Box and to revise as necessary. TPA is honored to participate in this effort and grateful for this ongoing volunteer work. TPA remains committed to following the spirit and the letter of the law and the PACE in a Box best practices. Accordingly, TPA adopted the PACE in a Box 2021 guidance and the Technical Standards Manual v3 as soon as they were issued. These updates, applied as best practices in all 71 local governments served by TPA, can be found in the Keeping PACE in Texas Document Library at: <https://www.keepingpaceintexas.org/library/document-library>.

Service Provider Directory

TPA developed and published a searchable service provider list on its website in 2021. The list includes category buttons and participation stamps for each organization involved in a successful TX-PACE project.

The directory includes TX-PACE capital providers, and three new categories:

- Service Providers (contractors, architects, engineers, and installers and suppliers) who have attended a TPA service provider training workshop;
- Independent Third Party Reviewers (ITPRs) – the Texas Licensed Professional Engineers who have attended a TPA service provider training workshop; and
- Purveyors of helpful services and specialties who have attended a service provider training workshop.

The directory can be searched by company name, PACE project experience, geographic coverage, contact information, services offered, and location.

2021 TPA Organizational Impact

e-Filing: Keeping Safe and Getting Efficient

Approximately one-half of the PACE closings TPA administers require TPA to file a Notice of Contractual Assessment Lien with local county clerk offices. The other half are filed by local title companies. In Texas, this often means staff traveling long distances. With the restrictions on travel and many county clerks limiting walk-in filings, or switching to extremely slow mail-only options, TPA invested in the ability to file its notices electronically in almost every county in Texas. Originally, this was done to limit travel and keep TPA staff safe during the pandemic. However, the ability to obtain near instant filing of these important public documents is something that TPA will embrace long after this virus goes away.

Addressing COVID Supply Costs

In response to COVID supply chain issues and the havoc they are raising on PACE projects, TPA responded creatively by allowing PACE property owner applicants a 5% variance on supply and equipment cost provided the programmatic requirements can be met. The policy will be reviewed every 6 months until the supply chain returns to normal.

2021 National and State Recognition

TPA celebrates the recognition of three members of the TPA team and honors one retirement during 2021.

PACENation 2021 PACE Champion – Hon. John Hall

PACENation, the national association representing the Property Assessed Clean Energy community, announced its second year of annual awards at the 2021 PACENation Summit on June 23. One of three national PACE Champion awards was given to the Honorable John Hall, one of TPA’s valued board members. John received national recognition in part because he was instrumental in bringing commercial PACE to Texas. John was also recognized for dedicating his extraordinary career in public and nonprofit service to environmental advocacy and environmental justice. The wisdom and experience John brings to the board is foundational to TPA’s effective public service.



DOE’s 2021 C3E Education and Advocacy Award – Marina Badoian-Kriticos

On October 29, U.S. Department of Energy Secretary Granholm congratulated 9 female recipients of national Clean Energy Education and Empowerment (C3E) Initiative awards. The awards recognize mid-career women who have demonstrated outstanding leadership and accomplishments in clean energy.

TPA team member, Marina Badoian-Kriticos was awarded the national C3E Education and Advocacy award for her career’s work focusing on the intersection of energy, climate, resilience, natural resource policy, and program adoption and implementation, and strategies that advance environmental, social, and corporate governance (ESG) integration and sustainability performance. Marina is collaborating with the Houston ASHRAE chapter to apply her \$8,000 award to the development of a program that improves the pipeline of female students to clean energy jobs.

TPA is very fortunate to have Marina lead the PACE project approval process.



The Texas Energy Managers Association Lifetime Achievement Award – Dub Taylor

The Texas Energy Managers Association (TEMA) honored Dub Taylor, TPA’s Chief Operating Officer, with a Lifetime Honorary Membership at the 2021 Awards Luncheon in September. Dub was instrumental in the development of TEMA. His more than 20 years of energy and water efficiency expertise as director of the State Energy Conservation Office is instrumental to advancing TPA’s organizational development and statewide impact.



2021 National and State Recognition

TPA celebrates the recognition of three members of the TPA team and honors one retirement during 2021.

TCEQ Recognizes Hon. John Hall

TCEQ released a video on February 25, 2021, entitled [Celebrating Black History Month: A Conversation with John Hall](#). TCEQ also interviewed John about why he established the Mickey Leland Scholarship program 30 years ago.



“Mickey Leland was a friend of mine. I had met him several years before he was killed on the way back from a hunger mission in Africa. I had always been encouraged by his commitment to environmental issues and so it was a memorial to him. I had always been encouraged by his commitment to improving the quality of life for people of color as well as low-income persons, while at the same time being very committed to addressing environmental issues during his tenure at the United States Congress. And so, I did it as a memorial to the influence he had in the minority community in Texas and beyond and the fact that at the time he was one of the few minority leaders in the state and the country who was highlighting the importance of effectively addressing environmental issues...my hope was that we could start an internship program as a way to introduce persons of color and women to the environmental profession, and thereby, encourage them to pursue careers in these areas.”

Hon. John Hall, [TCEQ Blog](#)

Retirement – TPA Recognizes Craig Smith, Esq

In 2015, as Assistant Attorney – Tax, for Travis County, Craig Smith helped establish the first PACE program in Texas. Craig’s work on the inaugural TX-PACE program documents, program design, and implementation laid the foundation for the Travis County PACE program and all that follow. When Craig retired from Travis County in 2017, he joined the TPA team, providing legal review of PACE projects and providing TPA with local government expertise and policy development. On his 75th birthday this past fall, Craig put his foot down (after being talked several times into another year of service to TPA) and retired in earnest. Craig and his wife Mary Ann continue their environmental volunteerism as master gardeners and lifelong environmental advocates in Central Texas.

Craig leaves a permanent mark on Texas PACE Authority and the statewide TX-PACE program. Craig’s example of ethical public service and his wise contributions of solid legal principles and local public service are embedded in TPA’s mission and DNA.



2021 Community Engagement

Statewide

Outreach Events

- Mitchel Foundation/Energy Foundation meeting, January 13, February 23, June 10, October 29
- AIChE-STS First Friday Webinar: PACE for Industrial Properties, January 15
- Texas Industrial Energy Efficiency Network (TIEEN) Spring Energy Forum/STS-AIChE, March 4
- Picking up the PACE in Texas webinar, AIA Houston, USGBC, TPA, May 25
- Rapidly Scaling Water Reuse Across Texas using PACE, National Wildlife Federation, Texas Water Trade, TPA, Austin Water webinar, October 19
- Collaboration with Morningstar re: C-PACE secondary market factors in Texas, June 4
- Gulf Coast Power Association Virtual Forum, June 17
- Texas Oklahoma Council of Governments (TCOG – Cooke, Fannin, & Grayson Counties) PACE presentation, June 23
- Texas Solar Energy Society - June 2021 Solar Reflector PACE article, June 30
- Texas State Energy Conservation Office (SECO) Programs and No-Cost Resources webinar, September 16
- Energy Services Coalition (ESC) 9th Annual Market Transformation Conference, September 20 - 22
- Texas Energy Managers Association (TEMA) 2021 Conference, September 23

T5 Training Webinars

- PACE for Commercial Solar, March 25
- Cashing in on Industrial Efficiency with TIEEN, April 15
- PACE for Industrial Energy, Water, and Environmental Projects, May 20
- 2021 Legislative Review: Energy Efficiency, June 17
- Keeping PACE in Texas Technical Standards Update, August 19
- Leveraging Non PACE Financing and Credit Mechanisms, September 16
- TPA Program Guide Updates, November 18
- USGBC Best Practices APP, December 16

Service Provider Virtual Training Workshops

- LRGVDC Service Provider Training Workshop (webinar), January 14
- Special Service Provider Training Workshop (webinar), December 15

Regional

- North Central Texas Council of Governments (NCTCOG) Rise Coalition, participation, January 11, April 26, October 15
- Lower Rio Grande Valley Development Council (LRGVDC) Regional PACE Forum (webinar), Cameron, Hidalgo, & Willacy Counties, January 12
- Economic Development Opportunities with PACE in Tarrant County Webinar, February 4
- North Texas Chapter Association of Energy Engineers (AEE) meeting, monthly
- Austin, San Antonio Chapter, AEE meetings, monthly
- NCTCOG Renewable Natural Gas (RNG) Regional Stakeholder Meeting, March 24
- 2021 North Texas Climate Change Symposium, April 16
- Economic and Environmental Opportunities in the Rio Grande Council of Governments (RGCOG) Region with EDA, SECO's LoanSTAR, and TX-PACE for Brewster, Culberson, Doña Ana, El Paso, Hudspeth, Jeff Davis, Presidio counties and the Tribal Nation of Ysleta del Sur Pueblo, webinar, April 27
- Middle Rio Grande Development Council (MRGDC) PACE Forum, webinar, May 19
- NCTCOG Regional PACE Program for Local Governments Roundtable, May 3
- Alamo Area Council of Governments (AACOG) Economic Development Week PACE Presentation, May 4
- North Central Texas Economic Development District Zoom PACE presentation, June 7
- South Texas Development Council (STDC – Jim Hogg, Starr, Webb, and Zapata Counties) Virtual PACE Forum, June 24
- Capital Area Council of Governments (CAPCOG) Capital Area Development Council virtual PACE presentation for Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano, Travis, and Williamson counties, August 20
- High Ground of Texas Annual Conference – PACE presentation and tour of the Barfield AC Hotel, October 20
- North Texas Facilities Expo, October 20 & 21
- CAPCOG PACE Workshop, December 15

Local

Anna Community Engagement

- Anna City Council PACE workshop, October 26

Arlington Community Engagement

- Tarrant County PACE program presentation to Arlington City Manager, Economic Development Director and constituents, September 15
- Hotel construction site visit, September 22

Amarillo Community Engagement

- PACE & Texas Energy Services Outreach Event, May 19
- Barfield Hotel site visit, May 19
- Barfield PACE Forum, October 21

Athens Community Engagement

- Henderson County Judge and staff PACE presentation, September 8
- Henderson County Commissioners Court PACE Workshop, November 16

Austin Community Engagement

- Austin Hispanic Chamber of Commerce meeting, April 29
- SPEER meeting re: city and county energy efficiency, June 1
- Austin Energy Coalition networking, June 3, September 13, and December 16
- Austin American Statesman Opinion, Water Reuse is helping meet needs, but we can do better by Sharlene Leurig and Jennifer Walker, September 22
- Travis County Commissioners Court contract extension, September 28
- Austin American Statesman Opinion, PACE Program May Provide Pandemic Lifeline to Business, Nonprofits, and Private Schools, by Hon. Brigid Shea, Travis County Commissioner, Precinct 2 and Hon. Bruce Elfant, Travis County Tax Assessor/Collector October 1
- Austin Large Scale Solar Conference meeting, December 10

Brenham Community Engagement

- PACE presentation to Brenham Economic Development Staff, August 16
- Brenham Chamber of Commerce PACE article included in December issue of ChamberWorks

2021 Community Engagement

Local, Continued

Corpus Christi Community Engagement

- Corpus Christi Regional Economic Development Corporation (CCREDC) Regional Economic Development Forum, April 16
- Nueces County Economic Development Commission meeting, April 16
- CCREDC meeting, April 19
- Nueces County services agreement extension approved, April 20
- Corpus Christi Black Chamber of Commerce virtual PACE presentation, April 26
- Nueces County Commissioners Court Annual PACE Report presentation, virtual April 27
- Nueces County Economic Development Commission PACE presentation, May 18
- CCREDC meeting, December 10

Dallas Community Engagement

- Dallas 2030 District, member participation, monthly
- City of Dallas Code Enforcement, webinar presentation, March 12
- City of Dallas Office of Environmental Quality, CECAP and PACE webinar presentation, March 18
- City Council approval of TPA contract, October 13

Denison Community Engagement

- Denison Economic Development Alliance, TCOG PACE discussion, September 7
- Denison Economic Development Alliance and Grayson County staff meeting, September 27

El Paso Community Engagement

- Introductory call with new County Economic Development Director, April 20

Fort Worth Community Engagement:

- Tarrant County Commissioners Court update presentation June 22
- PACE update with Fort Worth Economic Development Director, June 22

Freeport Community Engagement

- Freeport Economic Development Corporation, presentation, March 9
- Freeport City Council presentation and resolution of intent, March 15
- Freeport City Council hearing and resolution to establish, April 4

Local, Continued

Gainesville Community Engagement

- Gainesville Economic Development Corporation, presentation, May 20
- Gainesville City Council resolution of intent, August 17
- Gainesville City Council hearing and resolution to establish, September 7

Galveston Island Community Engagement

- Vision Galveston introductory meeting, October 25

Gun Barrel City Community Engagement

- PACE discussion with Mayor and EDC director, August 16
- PACE discussion with Mayor, EDC director, City Attorney, August 29

Gunter Community Engagement

- TCOG PACE introduction for Gunter economic development official, August 16

Houston Community Engagement

- Webinar - Houston Climate Action Plan: The Role of Public-Private Partnerships, February 24
- What Does the Energy Capital of the Future Look Like? – stakeholder discussion, March 10
- Houston SBA Regional Office Director, virtual meeting, April 23
- Houston Renewable Energy Alliance virtual meeting, April 28 and August 17
- City of Houston Building Optimization Working Group - Climate Action Plan, August 12
- Clean Energy Fund of Texas collaboration meeting, September 21
- Presentation to the City Council Regulatory and Neighborhood Affairs Committee, December 14

Laredo Community Engagement

- Laredo Economic Development Advisory Committee PACE Presentation, May 6
- Laredo City Council presentation and resolution of intent, June 26
- Laredo City Council hearing, August 16
- Laredo City Council resolution to establish, September 7

Local, Continued

Lubbock Community Engagement

- PACE Presentation to Lubbock City Manager and staff, April 6
- PACE Presentation to Lubbock City officials, August 13
- CH Foundation virtual PACE introduction, September 2
- Lubbock City Council PACE workshop, September 14
- Buddy Holly Hall PACE tour, September 14
- Presentation to Buddy Holly Hall donors and PlainsCapital Bank, September 14
- Lubbock City Council resolution of intent, October 12
- Lubbock City Council hearing and resolution to establish, October 26

Mabank Community Engagement

- Mabank City Council PACE workshop and resolution of intent, October 26
- Mabank City Council hearing and resolution to establish, November 16

Pecos Community Engagement

- Reeves County Commissioners Court PACE presentation, April 26
- Reeves County Commissioners Court PACE presentation, resolution of intent, May 10
- Reeves County Commissioners Court hearing and resolution to establish, May 24

Port Lavaca Community Engagement

- PACE Workshop for City staff, November 17

Red Oak Community Engagement

- PACE presentation for City staff, December 2

Rowlett Community Engagement

- Rowlett Economic Development Advisory Board PACE Presentation, July 20
- Rowlett City Council Work Session PACE presentation, August 17
- Rowlett City Council hearing and resolution of intent, September 7
- Rowlett City Council hearing and resolution to establish, September 21
- Rowlett Lakeshore Times, Rowlett Joins Clean Energy Program, September 24

2021 Community Engagement

Local, Continued

San Antonio Community Engagement

- Alamo Area Regional Council of Governments (AACOG) virtual PACE presentation to Western Urban, February 5
- AACOG & TPA virtual presentation to Loopy, Ltd., March 3
- AACOG & TPA presentation to LiftFund, March 15
- DOE C-PACE Market Potential Analysis for San Antonio, development call, March 31
- AACOG and TPA virtual presentation to Lone Star Brewery developers, June 22
- AACOG and TPA PACE presentation to City of San Antonio Economic Development Office, August 19
- AACOG and TPA virtual presentation to Credit Human, September 13
- San Antonio 2030 District meeting, September 15
- San Antonio Express Article: Keeping PACE with Water Reuse: Underused Financing Tool Can Help Buildings Buy Less Water, October 15
- San Antonio Express Article: Historic Travis Building getting a \$5 million Sustainable Upgrade, December 18
- ReWorks program, City Solid Waste Dept. PACE presentation, October 15
- CPS Energy, Energy to Business AACOG and TPA PACE presentation, October 29
- AACOG and TPA presentation to Texas Star Bank, November 8

Sinton Community Engagement

- Annual Report Presentation to the San Patricio Commissioners Court, April 19

Stephenville Community Engagement

- Stephenville Economic Development Corporation, meeting, April 8
- Erath County Commissioners Court Workshop, April 12
- Erath County Commissioners Court Workshop, May 3
- Erath County Commissioners Court resolution of intent, May 24
- Erath County Commissioners Court hearing and resolution to establish, June 14

Tulia Community Engagement

- Tulia City Council PACE presentation, May 11

Local, Continued

Tyler Community Engagement

- Smith County Commissioners Court PACE workshop and resolution of intent, August 31
- Smith County Commissioners Court hearing and resolution to establish, September 7

Wharton City Community Engagement

- City staff virtual PACE presentation, November 1
- City Council presentation and resolution of intent, December 13

Wichita Falls Community Engagement

- Wichita Falls, Wichita County Commissioners Court PACE workshop Presentation, January 15

International

- Alberta Canada – PACE legislation assistance, educational call, June 3 & 14
- Swiss – US Energy Innovation Days, 2021, virtual, June 16, 17
- Indo-American Chamber of Commerce, East India Council Virtual Presentation, July 9

National

- PACENation Member call, monthly
- PACENation presentation, HUD and C-PACE, webinar, April 4
- PACENation Summit, June 21, 22, & 23
 - TPA facilitated virtual panel on bank perspectives, June 21
 - 2021 PACE Champion Award presented to Hon. John Hall, TPA Board member, June 23
- PACE Administrator Alliance call, monthly
- C-PACE Alliance webinar Texas PACE presentation, January 26 & September 9
- Alabama – PACE legislation assistance, educational call, May 21
- Alaska – Fairbanks PACE program legislative update educational call, October 5
- Chicago, PACE program development assistance, educational call, March 5
- Kansas Nature Conservancy – PACE legislation assistance, educational call, May 14, October 10, & board presentation, October 25
- Louisiana – PACE legislation assistance, educational call, January 13, February 12
- Montana Facility Finance Authority - PACE Program design assistance, August 24
- North Carolina – PACE legislation assistance, educational call, January 18 & 19, March 17
- Oklahoma, ULI PACE webinar, presentation, February 25
- Oregon – PACE program development assistance, educational call, January 28
- Rhode Island Infrastructure Bank – Program educational call, April 29
- Tennessee – PACE Program development assistance, educational call, June 7
- Virginia and Maryland – Program development educational call, August 9

2021 Community Engagement

Professional Development

- PACENation Unconscious bias awareness training (webinar), January 26
- National Association of State Energy Officials (NASEO) webinar: Challenges to Green Banks and C-PACE During COVID-19, February 23 and August 2
- UT Kay Bailey Hutchison Center, Carbon Capture, Utilization, and Sequestration Webinar, February 24
- Winter Storm Webinar: What Went Wrong in Texas? And how do we Fix it? February 24
- Dallas 2030 District Webinar: Bldg. Sys. & Ops thru Pandemic, February 26
- UT McCombs Energy Initiative: Exploring Tradeoffs in the Texas Energy System, March 1
- CDFA-Bricker PACE Webinar Series, March 30, September 28, & November 30
- Nationwide Solar PII Transparency from NREL Analysis, March 31
- NARUC-NASEO Microgrids State Working Group Webinar, April 7
- UT Energy Week, participant, April 13
- NREL Data Viewer and Best Practices Roundtable, webinar, April 14
- 2021 TIEEP Virtual Water Forum, May 6
- PACENation CLE webinar, June 16
- El Paso Hispanic Chamber of Commerce (EPHCC) 17th International Women's Conference, June 25
- UT Austin/PUCT Academic Study on February Texas Blackouts webinar, July 13
- EPA 2021 Border Outreach Initiative Introductory Virtual Workshop, August 5
- Energy Foundation ERCOT / Demand Reduction Webinar, August 24
- Needs-Driven Innovation Virtual Workshop with Dr. Rush Bartlett, September 10
- 6 Months Later: The Texas Winter Storm & Energy Crisis Webinar, September 15

Professional Development, Continued

- EPA Webinar GHG Emissions for Commercial Real Estate: Deep Dive Part 1, September 16
- Operationalizing ESG for Sustainability Success, webinar, September 16, Part 2 – September 30
- TX Tech. Law School CLE, Renewable law for owners & Developers, September 20
- State. Bar of TX CLE - Future of Professionalism webinar, October 6, Civility in law practice CLE Webinar, November 4
- Public Utility Commission of Texas & Energy Efficiency Webinar, November 12
- Conservative Energy Network webinar - Voter Attitudes on Clean Energy and Infrastructure, December 15

Allied Engagement

- PACENation
 - Board member
 - Board Program and Policy, member
 - Organization member
 - HUD Working Group, member
 - SBA Working Group, member
 - Awards Committee, member
- South Central Partnership for Energy Efficiency as a Resource (SPEER), board member
- TX-Energy Services Coalition Education Subcommittee, member
- Texas Industrial Energy Efficiency Network, organization member, leadership
- Texas Industrial Energy Efficiency Program, member
- Texas Solar Energy Society, board member

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