



TIEEN Webinar

2:00-3:30 pm Central, Wednesday April 12, 2023

Industrial Energy Efficiency in a volatile, high price energy market

Introducing the TIEEN Team

The [Texas Industrial Energy Efficiency Network \(TIEEN\)](#) is a network of publicly supported industrial energy-efficiency organizations. TIEEN is funded through a grant from the State Energy Conservation Office (SECO).

SPEER – The South-central Partnership for Energy Efficiency as a Resource – Austin, TX based

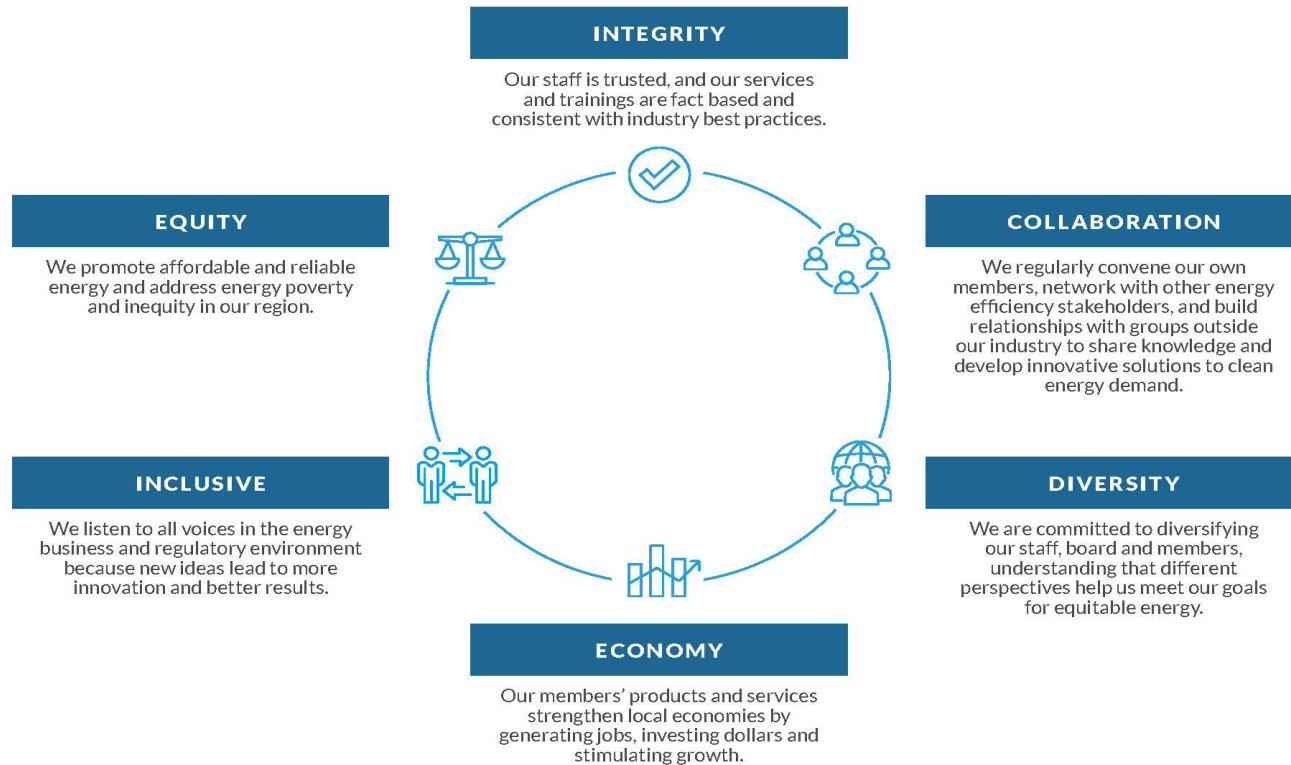
SPEER'S MISSION IS TO ACCELERATE THE ADOPTION OF ENERGY EFFICIENCY PRODUCTS AND SERVICES IN TEXAS AND OKLAHOMA. WE WILL ACCOMPLISH OUR MISSION BY:

- ✓ • BUILDING AND LEADING DIVERSE PARTNERSHIPS AMONG ALL STAKEHOLDERS;
- ✓ • PROVIDING SCIENCE-BASED RESOURCES AND TRAININGS FOR OUR MEMBERSHIP AND PARTNERS; AND
- ✓ • PROMOTING POLICIES THAT ADVANCE ENERGY EFFICIENCY TECHNOLOGY, RESEARCH AND OTHER INNOVATIONS.

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

OUR VALUES

SPEER integrates the following values into everything we do to meet the needs of our members, local communities, staff and board.



Our vision is to position SPEER as the regional leader in the education and promotion of energy efficient building systems and distributed energy resources that strengthen local economies, improve health and quality of life, and protect the environment.

Our Focus:

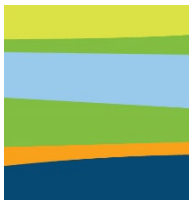
- Building Tech Optimization
- Local Governments
- Code Enhancements
- Heat Pump Adoption
- Workshops/Trainings

Our Mission

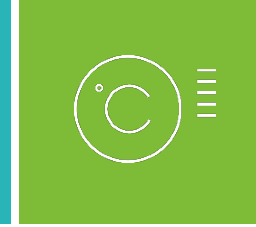
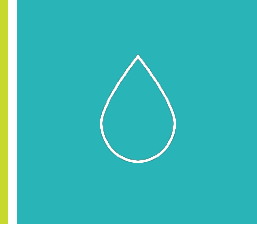
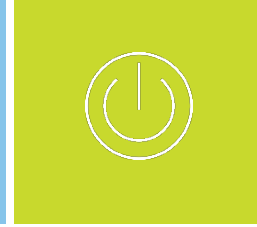
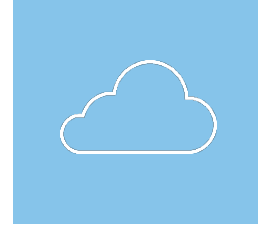
TMAC's mission is to accelerate profitable growth and competitiveness of Texas manufacturers by developing and improving profit, products, processes, technologies and people.



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HARC



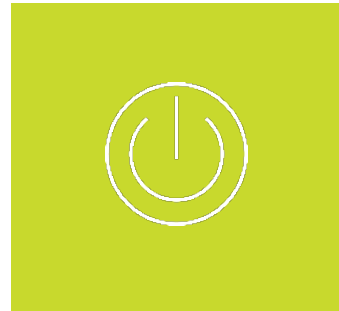
HOUSTON ADVANCED RESEARCH CENTER (HARC)

Our **mission** is to provide independent analysis on energy, air, and water issues to people seeking scientific answers and to operate as a research hub finding solutions for a sustainable future.

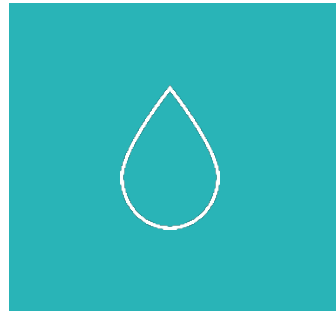
Programs & Competencies



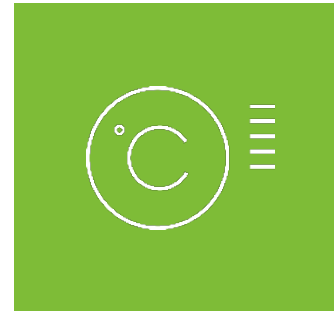
**Air
Quality**



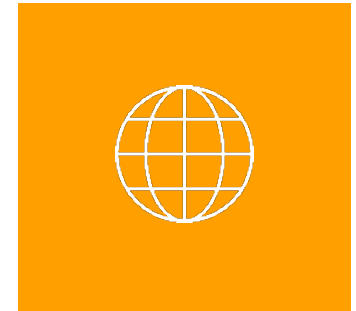
**Clean
Energy**



**Water
Resources**

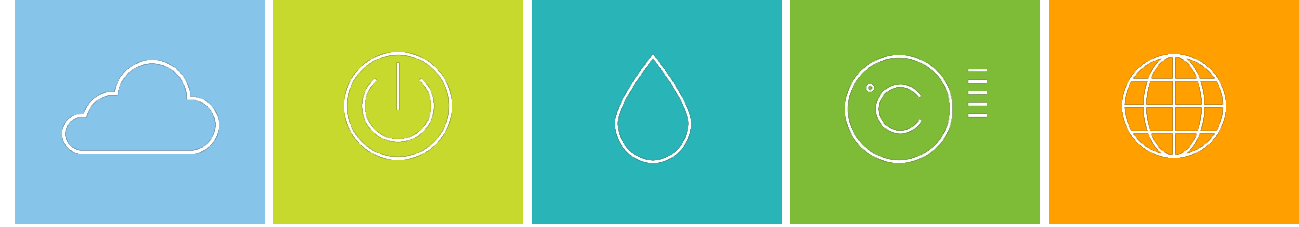


**Climate
Risk**



**Geospatial
& Analytics**

HARCresearch.org



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Introduction to IAC Program



- *TAMU IAC Info*

- ✓ No-cost energy conservation studies
- ✓ Quantify savings and implementation costs
- ✓ Staff professional assisted by 4 – 6 students
- ✓ DOE criteria for manufacturing plants
 - Sites less than:
 - 500 employees, annual sales \$100MM
 - Energy costs between \$100 K ~ \$3.5 MM/year
 - No on-site staff energy manager

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PACE

A new financing
option for industrial
energy, water and
environmental
projects



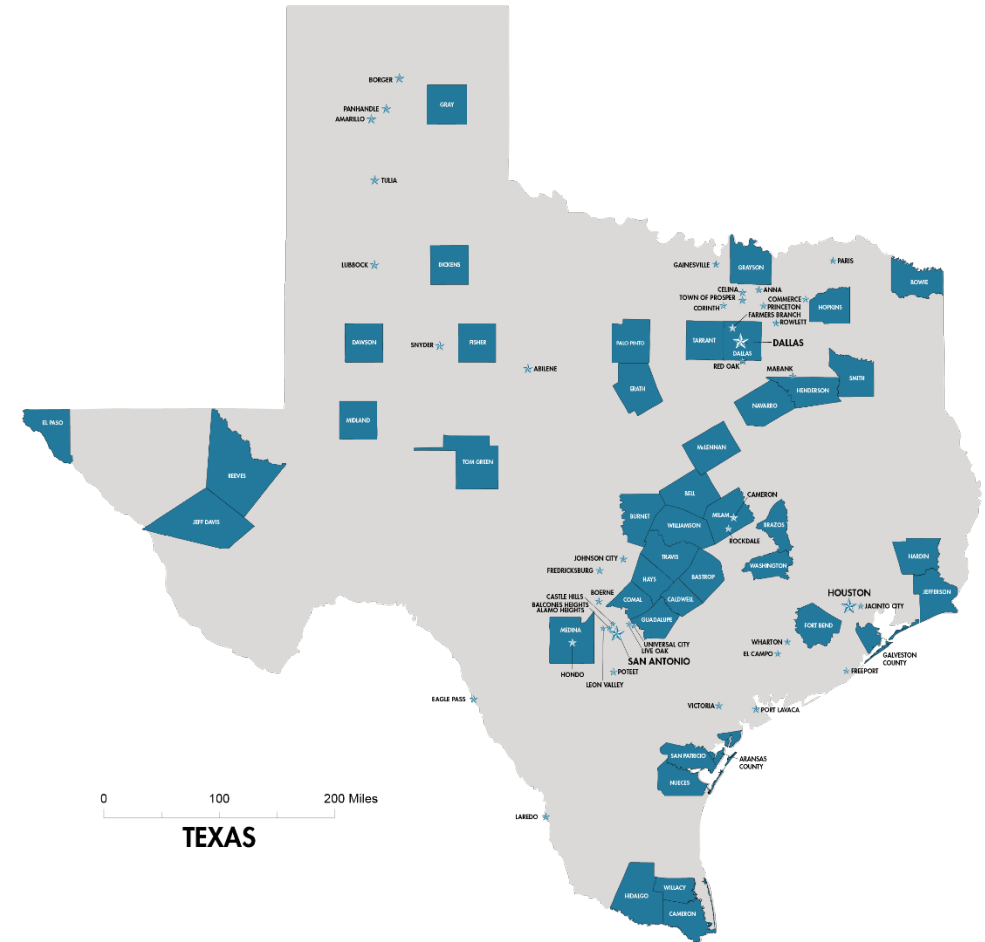
TEXAS PACE AUTHORITY

Who is TPA?

- 7-year-old Texas non-profit
- Administer 85 local PACE programs
- Covers 73% of Texas' population

What is PACE?

- Property Assessed Clean Energy
- Energy efficiency, water conservation and distributed generation projects
- Financing structure: long term, low cost, budget neutral, 100% private funding
- Secured by local property assessment



PACE-ELIGIBLE PROJECTS

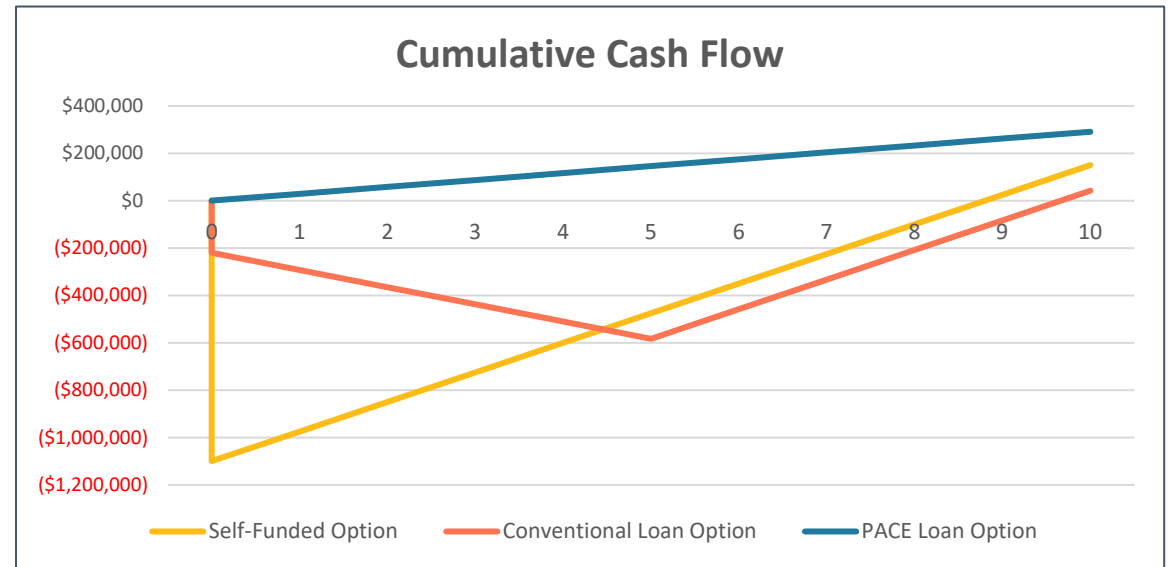
Projects that reduce energy or water usage or generate energy onsite

Energy

- High efficiency heating/cooling (chillers, cooling towers, boilers, furnaces)
- Energy management systems and controls
- Mechanical insulation
- Combustion and burner upgrades
- Heat recovery and steam traps
- Renewable/CHP/DG energy systems

Water

- High efficiency water heating systems
- Water conservation systems
- Reclaimed water use
- Wastewater recovery and reuse systems



- Increases property value with no capital investment by owner
- Generates positive cash flow immediately – $SIR \geq 1$