



TEXA|TECH

Engineering solutions you can trust

Process Automation • Process Design • Drafting • Electrical

Flexible engineering. Experience that delivers.

At **Texa-Tech**, we provide **comprehensive engineering** services for **all industries**, delivering reliable, efficient, and **results-driven** technical solutions.



**+ 15 years of
combined
experience**



International Presence

- United States
- Europe
- Colombia
- Mexico



¿Why Texa-Tech?

- Engineering rigor
- Operational flexibility
- Field experience
- International presence



Industries

- Energy
- Oil & Gas
- Manufacturing
- Food & Beverage
- Pharmaceutical
- Mining

- Electrical and instrumentation drafting services
- As-built CAD drawings
- Mechanical drafting (2D and 3D)
- Structural fabrication drawings
- 3D plant model development
- Isometric drawings
- Architectural drafting
- Civil drafting
- CAD conversion services



Experience in different design and modeling software such as





Systems Integration

- Engineering to transform manual systems into automated systems.
- Engineering to update/modify existing systems.
- Migrations

Specialized Services

- Advanced Process Control (APC)
- Functional Safety IEC61511
- Consulting



Instrumentation & Control Engineering

- Conceptual, Basic, and Detailed Engineering

Design and fabrication of control panels

- Panels for PLCs.
- Remote I/O panels.
- Communications panels.
- Operating stations and HMIs.
- Instrumentation panels.
- FAT and SAT support.
- PLC, SCADA, and HMI programming.

Experience in PLC, DCS, SCADA, and SIS control systems from leading brands such as

Siemens • Rockwell • Emerson • Honeywell • ABB • Schneider Electric • Yokogawa

Renewable Energy

- Power plant design
- Feasibility studies for interconnection
- V-I curve validation tests
- Thermography with drones
- 3D modeling with LiDAR sensor
- Design of grounding systems in wind farms and photovoltaic parks

Power quality and grid code

- On-site measurements
- Power quality analysis
- Reactive compensation and harmonics
- Studies for grid code compliance
- Supply of active and passive filters
- Supply of capacitor banks
- Load balancing analysis

Design Engineering

Conceptual, Basic, and Detailed Engineering High, Medium, and Low Voltage

- Plans and Diagrams • Equipment and Panels • Equipment Sizing
- Electrical Calculations

Studies

- Modeling
- Load Flow
- Short Circuit
- Protection Coordination
- Electric Arc

Experts in electrical power simulation software management

PSS\IE • Digsilent • Neplan • ETAP • EMTP • DSATools • ASPEN

Energy Efficiency

- Telemetry
- Energy assessment and audit
- Leak detection
- Savings strategies
- Machine control and monitoring panels
- Identification of consumption patterns
- Feasibility and return on investment analysis
- Simulation of savings strategies

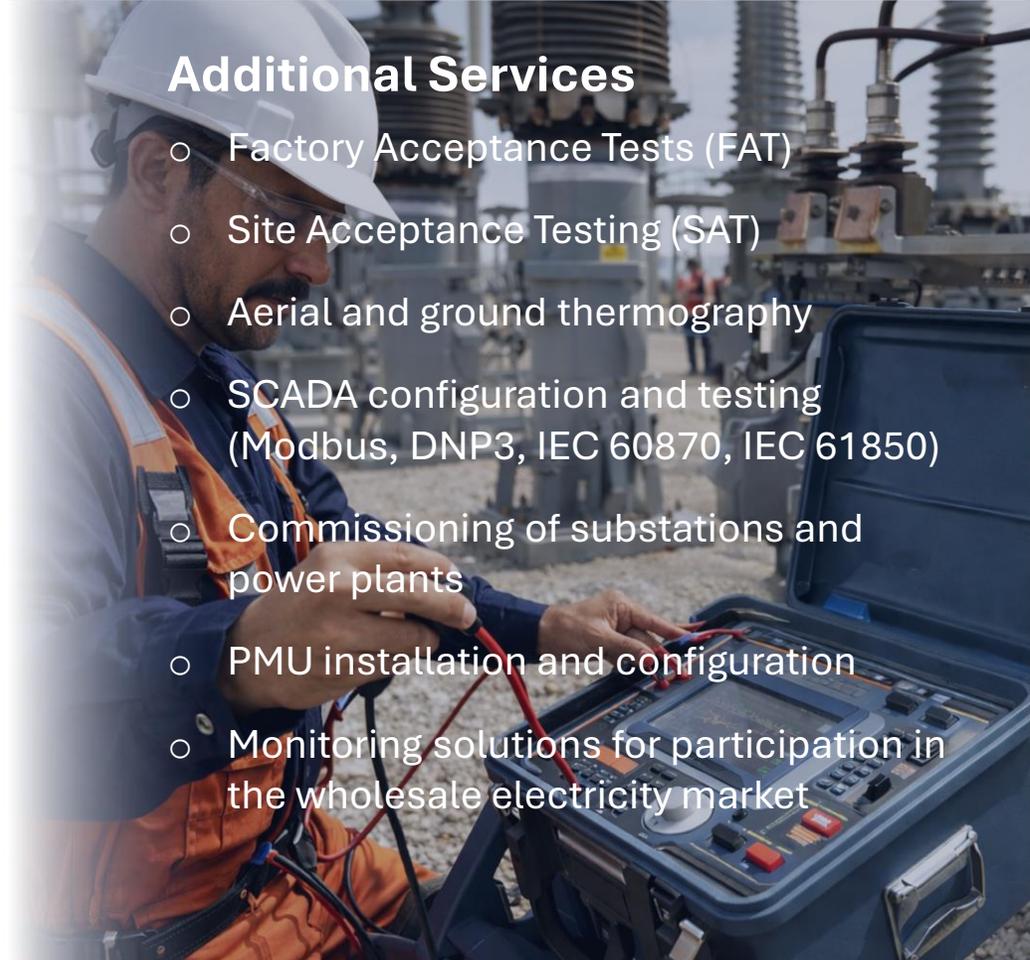
Applications and Graphical Interfaces

- CFE billing validation
- Real-time monitoring
- Business intelligence
- Historical data management
- Asset management

Primary and Secondary Equipment Testing

Additional Services

- Factory Acceptance Tests (FAT)
- Site Acceptance Testing (SAT)
- Aerial and ground thermography
- SCADA configuration and testing (Modbus, DNP3, IEC 60870, IEC 61850)
- Commissioning of substations and power plants
- PMU installation and configuration
- Monitoring solutions for participation in the wholesale electricity market



Rental of specialized testing and diagnostic equipment

Power quality measurement • Test equipment • Tellurium meter • Thermal imaging cameras • Cable diagnostic equipment



ELECTRICAL TRACING SERVICES

HELOC, Chromatrace, or Computrace.

- Insulation thickness selection.
- Heat trace cable selection for different temperature ranges (SR, MI, BPL).
- Isometric drawings based on field surveys (redlines).
- Bill of materials (BOM) for heat tracing components.
- Load table/panel schedule.
- Designs based on P&IDs, plot plans, and Navisworks models.
- Interpretation of HT audit reports (MegTest).

Heat loss calculations in pipes using software such as



HELOC • Chromatrace • Computrace

At Texa-Tech, we develop process engineering solutions focused on **safety, operational efficiency, and reliability**, accompanying our clients from the conceptual phase through to commissioning.

- Process Conditions
- Process Design
- Process Simulation
- Equipment Sizing and Design
- Piping Design
- Control and Optimization
- Cost Estimates
- Conceptual, Basic, and Detailed Engineering



Experience in process simulation systems



COMBINED PROJECT EXPERIENCE

Experience provided by the leadership of TEXA-TECH and its engineering collaborators, with prior and subsequent track records to the company's founding



ExxonMobil

INSTRUMENTATION & CONTROL | FUNCTIONAL SAFETY

Advanced Recycling Venture | Refineries USA/Canada/Europe - Instrumentation & Control

Conceptual study, Basic engineering, Detailed engineering, Commissioning and Start-up

Blue Ammonia | New Baytown Plant - Instrumentation & Control

Conceptual study

Wireless Gas Detectors | Refinery Baytown

Conceptual study, Basic engineering, Detailed engineering, Commissioning and Start-up

Houston Automation Lab Control System Modernization

Design, supply and installation of Triconex CX and 3009, Orbit 60 and HIMA systems

Modernization of Furnace in Olefin Plant - Functional Safety

SHEVDU SIS and HMI updates to comply with IEC61511 standards.

IEC61511 Audit Team Leader - Functional Safety

Identifying design gaps, developing engineering solutions to mitigate those gaps, and providing support during implementation.



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ELECTRICAL TRACING



Targa East Drive – Conceptual study and design of electrical tracing



Plant McIntosh – Electrical Trace Design



BC Smith Cooling Tower – Electrical Trace Design



Colorado Springs Utilities- Electrical Traceability System Audit



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TECHNICAL DRAWING



Hickory Run – Development of 115 isometric drawings of pipes with complete labeling.

Meag Power – Development of the plot plan for heat tracing systems.



3D modeling and development of manufacturing plans for structural components for a drilling rig.

**ARANGO INGENIEROS
SAS**

Parcelación Industrial LAS PALMAS – Development of architectural plans.



Sede Deportiva ACOFUTPRO – Development of architectural plans.

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ELECTRICAL ENGINEERING | RENEWABLE



Study of protection coordination and commissioning of 3 TM2500 35 MW turbines.



El Mezquite Wind Farm - Basic engineering for resizing the grounding system.



El Junco Photovoltaic Plant – Electrical modeling, short circuit analysis and protection coordination.



Tests Protection Scheme 500 kV Line – Commissioning of the 500kV online protection scheme.

SAT tests SE Alferez 230 kV - Testing and programming of Hitachi relays for the commissioning of the Alferez 230kV Substation expansion.

Dos Bocas Refinery – Commissioning of medium voltage switchgear and electrical protection systems according to IEC 61850 standard.



**REFINERÍA OLMECA
DOS BOCAS**

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Electrical Studies for Guayama 300 MW Power Plant – Port

Electrical modeling, short circuit analysis, protection coordination, and arc flash assessment.

MEM Measurement System – Installation of a communication system for remote communication to MEM ION energy meters.

SCADA System – Engineering design, supply, commissioning testing and integration of the SCADA system for substation monitoring system.

Photovoltaic Park – Primary, civil and secondary detailed engineering for the interconnection of the Rovira 3.5MVA Solar Park.



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THANK YOU!

