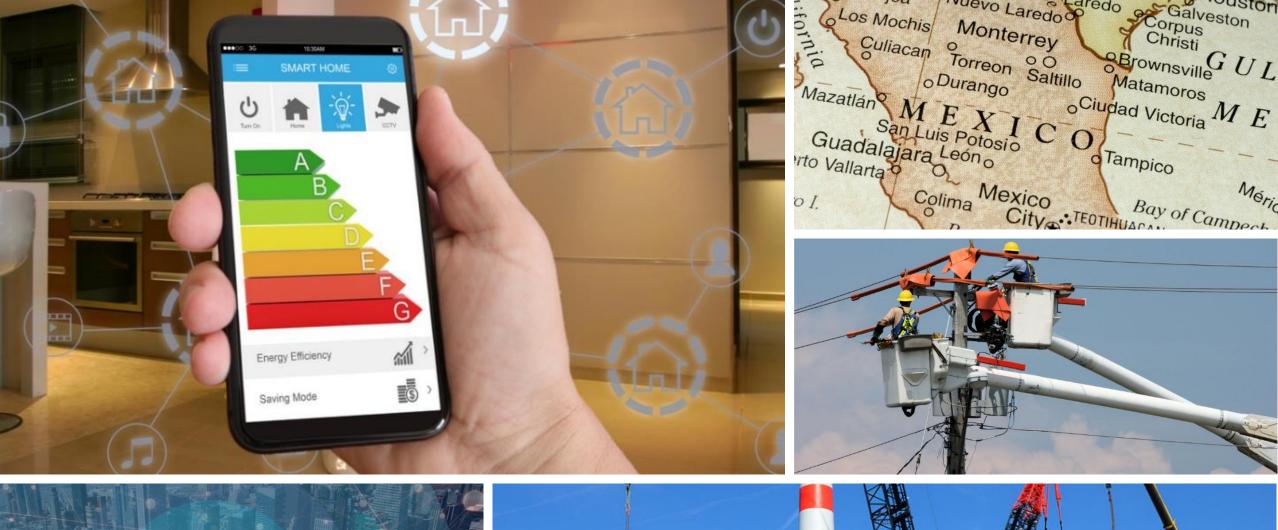






The Leading Energy
Consulting Firm in Mexico











## History and Experience

MEXICO ENERGY PARTNERS LLC

Founded to provide honest, independent, and ethical consulting solutions to multinational private companies, project developers, and other stakeholders in Mexico.

- Formed in 2015 by seasoned professionals in engineering, project finance, renewable energy and construction management
- Technical team with over 100 years of energy construction management and pipeline experience in Texas, Alaska, and Mexico
- Differentiated consulting firm with a **focus on electricity, natural gas, and power** markets
- Strong relationships with government regulators, energy ministers, and trade associations

#### **Full-service consulting solutions including:**

- Technical and engineering, project management, and pipeline services
- Risk and strategy assessments for energy procurement
- Permitting and regulatory for development projects

## Independent Expertise in Mexico's Energy Sector

#### KIJANA A. MACK, DIRECTOR

Cross-Border Corporate Strategy

Power Purchase Agreements

Corporate Governance

Legal Risk Management

Capital Markets

#### PAOLA MORENO, DIRECTOR

Renewable Energy Policy

Power and Electricity Markets

**Energy Efficiency** 

**Project Finance Risks** 

Regulatory Affairs

#### GABRIEL VIGUERAS, DIRECTOR

RealWear Market Representative

Corporate Strategy

Technology and Innovation

**Industrial Efficiency** 

Software Solutions

## Consulting and Advisory



## **Energy Procurement in Mexico**

Businesses and other organizations use 76% of the energy produced in Mexico and they are increasingly interested in procuring renewable energy. Over 1,500 firms already use renewables, and demand continues to rise.



- As the number of market participants rises and the depth of the market increases, renewable power becomes more reliable and cost-effective.
- A market with more depth can be more complex and intimidating for new entrants.
- Examining the market participants, analyzing the agreements available for off-site energy, and looking at on-site energy options are crucial for procuring renewable energy.

The energy reform in Mexico introduced Power Purchase Agreements (PPAs) as one of the primary ways to trade energy.



## **Energy Procurement**

**POWER PURCHASE AGREEMENTS** 

Our efficient and comprehensive RFP process enables companies to lower energy costs in Mexico's newly-deregulated energy market.

- We help clients navigate the rapidly changing power sector in Mexico.
- Our consultants manage the entire energy procurement process for global multi-national corporations.
- We manage the Qualified User and asset registration process.
- Legal experts manage negotiation and signing of power purchase agreements and energy supply contracts.





## Comprehensive RFP process

Procurement of independent supplier to purchase electricity on the wholesale markets

- Identify all viable suppliers and perform pre-qualification process
- Perform a comprehensive RFP process with high-quality suppliers
- Contracting, negotiation, and PPA signing
- Registration of assets and installation of transformers and meters
- Start of new supply in the MEM market



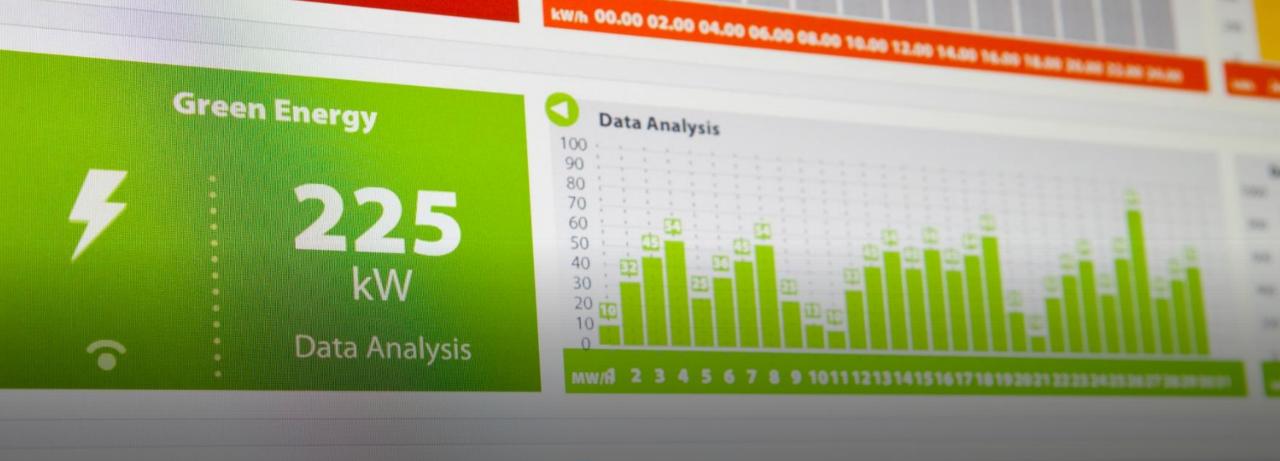
## **Energy Contracts**

POWER PURCHASE AGREEMENTS

We are specialists in reviewing power purchase agreements and mitigating risks with counterparties.

Key areas we analyze in energy supply contracts:

- Financial Risk of Suppliers
- Counterparty/Joint Default Analysis
- Fuel Supply Risks
- Customer Concentration
- Market Risks
- Regional Market Dynamics
- Rate/Tariff/Price Risk Analysis
- Transmission and Interconnection Risks
- Accidents and Safety
- Corporate Governance



## Energy Efficiency

# Energy efficiency for industrial plants

Mexico has been one of the Latin American countries who has embraced climate change action. In March 2015, it submitted a climate action plan to the UN Framework Convention on Climate Change (UNFCCC), being the first developing country to do so.

- Our consultants develop energy efficiency solutions for customers that offer fast ROI
- Deploy technologies to Improve profitability and asset values
- Identify solutions to mitigate risks with regulatory compliance and business perception

AMLO is for strengthening the state-controlled CFE, and improving the performance of Mexico's electrical grid is a priority.





# HEATING 21,0° Current Temperature 4

## Energy Assessments and Automation

INSIGHTS AND TECHNOLOGIES THAT LOWERS OPERATING COSTS

#### **Our Services**

- Corporate energy efficiency assessments for industrial plants and large buildings
- Assessments are based on the LEED Green Building standards in the United States
- Analysis of utility bills, power consumption, and optimization and trend analysis
- Clean Energy Certificates (CEL)
- Buildings Automation Systems (BAS) Optimization
- Building and HVAC systems monitoring
- Vendor selection for energy efficiency projects



## LEED Green Building

#### COMPREHENSIVE ASSESSMENTS TO IMPROVE ASSET VALUES

- Consultants use proprietary software to optimize future energy spending.
- Identify and rank order our findings to optimize the efficiency and savings versus anticipated capital spending and operating expenses.
- Final project recommendations are carefully mapped according to the overall strategic needs of the building or plant.

#### We specialize in energy optimization for:

- ✓ Air handling units
- ✓ Air compressors
- ✓ Water pumps
- ✓ Industrial cooling fans
- ✓ Windows
- Escalators







## Project Management Consulting

- Project Management
- Construction Management
- Scoping and Bid Package assembly
- Estimating
- Contractor Management
- QA/QC Support (CWI-API)
- Planning and Scheduling (P6)
- I/E Contractor Management/ Tech Services
- Turn Around Management
- Construction Coordinators







## Pipeline Services and Inspections











#### General Services

Inspection/Engineering Specialty Welding and Exotic metals repairs Field Machining/Valve

Field Machining/Valve Rebuild

PSV/POV Field/Shop Test

Pipeline Construction and Maintenance

Pipeline Pigging (Unpiggables)

Line Drying, Hydrotesting, Gauging

(ILI) Electronic X,Y,Z and manual Gauging

#### **Advanced Services**

API UPA Certified Manual & Encoded Ultrasonic Phased Array

**AUT Corrosion Mapping** 

HIC Hydrogen Induced Cracking Inspection

TOFD Time of Flight Diffraction

Digital / Flash / Real Time radiography

**EMAT Inspections** 

Guided Wave Inspections (GUL)

#### **Remote Visual Services**

3D Remote Visual data Verification

Remote Visual Piping & Vessel Inspection

3D/2D Laser and Visual

#### Robotics/ UAV (Drones)

Remote Visual Crawlers

Laser and Structured Light-based Inspection

Infrared Gas Detection (UAV, Robotic)

Robotic Welding, Automatic Welding

Automated Ultrasonic Robots, Tank Robots

Arial Surveillance (Drones)

#### **Visual Services**

API, AWS, NACE Certified Inspection Personnel

SNT TC 1A Certified NDE Technicians

Turnaround, Capital Project & Reliability Inspection

Vendor Surveillance/ Shop Inspection

Process Safety Management Expertise

Mechanical Integrity Procedures, Programs & Expertise

# Use of innovative technology and engineering solutions to give better results faster

- Using certified inspectors trained in planning to assist Project and T/A
   Teams
- Use of Pre-Activity Detailed Inspection Planning (Developing IOW, DIP, etc.)
- Radiography minimization utilizing PAUT (Phased Array Ultrasonics)
- Pre-Turnaround Flange Face Phased Array TOFD (Time of Flight Diffraction)
- Turnaround Phased Array testing of welds
- Pipe to pipe Phased Array
- Pipe to Fitting Phased Array married with TOFD
- Wet Magnetic Particle and ACFM minimization utilizing
- SECT (Surface Eddy Current Testing)
- Remote Visual Inspection in lieu of internal inspection (Risk Reduction)
- Use of a mobile, wireless device/software to perform real time inspections
- Capturing data without the need to complete reports later
- Capture of valuable analytics for lessons learned (KPI)

### How we create value



Do more, with less

Optimize the best and most efficient technologies, structure of crews, etc.



Integrate Engineering, Innovation & Inspection

Utilize engineering mindsets and processes when planning and executing inspections



Assistance from the office We only employ the best, with vast experience and knowledge and always ready to respond only one call away



Synergy

Sole Point of Contact (SPOC) — Integrate team that can combine Planning, Scheduling, and Cost Controls



The Leading Energy Consulting Firm in Mexico

30 Wall Street, 8<sup>th</sup> floor New York, NY 10005 +1 212 901 8601 (US) +52 55 3906 4093 (Mexico) Contact Kijana Mack, Director kmack@mexicoenergypartners.com