

**Complete Engineering Solutions** 





# **Company Profile**

Pre-Commissioning and Commissioning

Carbon Capture, Utlisation, Green Hydrogen

Sustainable Energy Systems



## Experience and Capabilities

#### Pre-Commissioning and Commissioning within the Oil and Gas Industry



From the inception of the Point Lisas industrial estates, nationals of Trinidad and Tobago have built up an impressive base of engineering expertise working alongside other international professionals in the development, design, construction, commissioning and operating of the 34+ industrial plants located within the Point Lisas industrial estates. Our engineers are recognized globally for their professional engineering skills and commissioning management within the oil and gas industry.

At FarmChem we are well aware of the following factors that continue to drive growth in the chemical and petrochemical industries:

- Monetizing of existing stranded gas reserves.
- Energy companies keen to gain access to new gas resources.
- Market demand for cleaner fuels and new, cheaper chemical feedstocks.
- Rapid technology development by existing and new players.

#### Green Engineering & Sustainable Development



FarmChem has a calculated approach assuring a return on the investments in expansion and generation of electricity from renewable sources of energy in Trinidad and across the Caribbean. Our diverse team of progressive sustainable professionals in FarmChem can design construct and operate renewable power generation utilities on any scale.

Our pre-commissioning and commissioning works on the NiQuan GTL plant in Trinidad allows us to lay the path into this sustainable energy journey, through the production of zero-sulphur diesel on the facility.

We at FarmChem see that significant changes are underway, and are actively involved in the adaptation of our knowledge and skillsets in order to play a qualified role in the spearheading of this transition. FarmChem has a key interest in the carbon capture and hydrogen industries, as vehicles for change, and we have already begun to invest in our knowledge practices and strategies while aligning with our sustainable energy partners. FarmChem has a calculated approach assuring a return on the investments in expansion and generation of electricity from renewable sources of energy in Trinidad and across the Caribbean. Our diverse team of forward thinking Engineers and progressive sustainable professionals in FarmChem can design and operate renewable power generation utilities on any scale.

#### Green Power (Methanol Generator 8.4Mega Watts)

FarmChem's 'One Stop Shop' of operational services enhance and complement our Engineering Services to our clients hence, FarmChem also installs and supplies up to 8.4Mega Watts of Green Power via our Methanol Generator. In the generation and management of this industrial power supply FarmChem operates and maintains a 24/7 support service which includes a stores and warehouse facility for operational works.

#### **Renewable Energy**

FarmChem Sustainable Energy and Development Team is heavily invested in Green Hydrogen, Solar and Wind Technologies, including Carbon Capture Utilization Storage.

FarmChem having a keen interest in sustainability globally is working as a catalyst in guiding and assisting companies to transition away from fossil fuels to sustainable energy solutions. FarmChem's goals are to improve both new and existing facilities through sustainable initiatives.

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### **Experience and Capabilities**

#### **Complete Engineering Solutions**

Commissioning Managers	Electrical Engineers	Project Managers In Engineering	Rotating Equipment Engineers
Commissioning Engineers	Instrument Engineers	Chemical Process Engineers	Structural Engineers
Electrical and Instrument Designers	Mechanical Engineers	Process Engineers	Project Documentation
Carbon Capture Utilisation & Storage	Green Hydrogen	Sustainable Engineers	Project Management

#### **ONE-STOP-SHOP**

• Pre-Commissioning and Commissioning • Inspection - Nondestructive Testing • Lube Oil Flushing • Chemical Cleaning

- Steam Cleaning Catalyst Loading High-Pressure Nitrogen Pumping Equipment Rentals (pumps and compressors)
  - Chemical Product Supply and Delivery
     Water Well Drilling and Completion Operator Training
    - Global Standard Safety Training

The ONE-STOP-SHOP FarmChem Operational Services in Pre-Commissioning and Commissioning

Capabilities	Advantage	Results
Pre-Commissioning and Commissioning	• Full comprehension of systems, processes and outcomes required	Managed Project Challenges and Measured Outcomes
Inspection - Non-Destructive Testing	• Essential for constructing and maintaining all types of components	<ul> <li>Increased longevity and Less Down Time</li> </ul>
• Lube Oil Flushing	Efficiency Maintenance Practice	• Extends the Life of Rotating Equipment, Turbines, Compressors and Engines
• Chemical Cleaning	• Circulation Method for the highest efficiency vs. the traditional static method	• The Gains are Significant due to the Constant Circulatory Movement of Solution Through the Pipelines
• Steam Cleaning	• The removal of scale and construction debris from newly installed lines	• Ensure Systems Perform Functions Correctly Extending the Life of Associated Equipment
• Catalyst Loading	• Prevent complications by delivering pre- loading and loading information	• Cost Minimisation
• Operator Training	• Converting information into Working Knowledge and Operating Skills	<ul> <li>Knowledgeable and Competently Skilled</li> <li>Process Operators</li> </ul>
• Global Standard Safety Training	• All employees must be Informed and Skilled on Plant Safety	• Minimise Accidents, Minimise Down Time, Minimise Costs, Maximise Wellbeing
• High Pressure Testing	Both On-Shore and Off-Shore	<ul> <li>Flexibility of Service Matching the Customers Requirement</li> </ul>



#### FarmChem Engineering Management Ltd

**Safe TO Work (STOW)** is a certification programme for the Health, Safety and Environmental (HSE) management systems of contractors who serve Trinidad & Tobago's energy sector. The programme is currently used by 23 of the major clients to prequalify their contractors.

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### Project Management

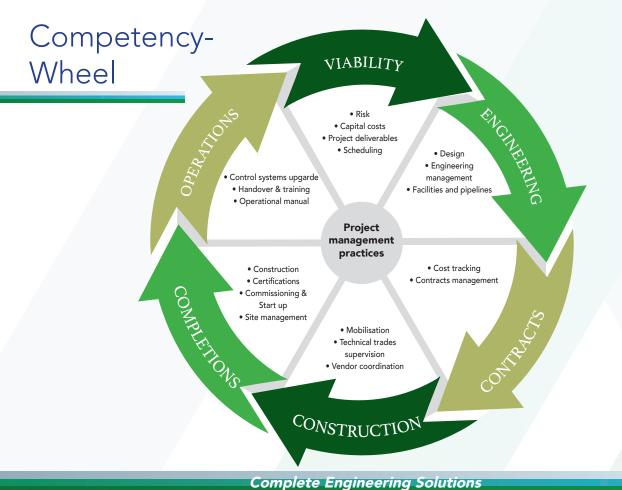




**Project Management** execution within the oil and gas Industry has one core aim throughout any project and that is to ensure the most accurate decisions are made at all times. Define It, Design It, Do It, Deliver It. FarmChem Engineering Management Ltd measures and appraises projects prior to commencement of works, measuring the following SEVEN Phases:

- Front end engineering design (FEED)
- Procurement of long lead equipment
- Risk analysis and mitigation
- Construction and fabrication

- Onshore pre-commissioning
- Logistics of transportation and installation
- Commissioning and certification of operation



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Ian Farmer, Managing Director, has developed and honed his engineering skills and management practices during his extensive career in precommissioning and commissioning across the oil and gas industry within challenging environments:

- Russia
- Saudi Arabia
- United States Of America
- Nigeria
- China
- Trinidad and Tobago
- Algeria
- Iraq
- Venezuela

FarmChem's Engineering and management foundation of surplus experience and diligent work practices ensure our teams complete all projects at the highest calibre and in the most efficient manner making FarmChem a one-stopshop in pre-commissioning and commissioning.

#### **Present Activities and Current Projects:**

FarmChem Engineering Management Ltd is precommissioning and commissioning a GTL plant for and on behalf of, Niquan Energy Trinidad Ltd.

#### KBR IHR International

Commissioning Manager

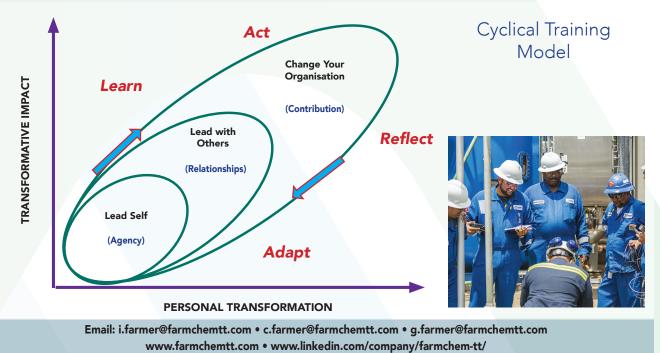
- SAFCO3 Ammonia Purifier Plant, Al Jubail, Saudi Arabia
- YARA BSF, KAAP Ammonia Purifier Plant, Texas
- Dyno Nobel, KAAP Ammonia Purifier Plant, Louisiana
- PEQUIVEN, KAAP Ammonia Purifier, Venezuela

### Industrial Plant Services Ltd. (IPSL) in Trinidad and Tobago

**Operations Manager, AUM Complex** 

The AUM Complex has eleven ammonia plants that include two ammonia complexes on the Point Lisas industrial estate, with a total annual capacity of 5.2 million metric tonnes (MT):

- KAAP Ammonia 1850 MTPD- KBR
- Urea 2100 MTPD-TOYO
- Nitric Acid 1500 MTPD- UHDE
- UAN 4300 MPTD
- Melamine 1&290 MPTD (each) Euro-Technica





### Complete Engineering Solutions

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