

ENERGY INTENSIVE MANUFACTURING







114 years historical experience in the petroleum sector





7.1% total labour force (or **43,900** persons) employed in Manufacturing



21% growth in volume of exports of goods

(Source: International Monetary Fund: World Economic Outlook Database, 2021)



A major **Petrochemical hub** (Ammonia and Methanol)



A major supplier of **Natural Gas Liquids** to the Caribbean

ith over 100 years of international energy experience, Trinidad and Tobago presents an attractive environment for natural gas-based and sustainable energy industry projects.

Our energy sector is dominated by foreign multinational companies in upstream exploration and production and traditional petrochemical production, including BP, Shell, Woodside Energy (formerly BHP), EOG Resources, Proman. Nutrien, Yara, Methanex and Mitsubishi.

Trinidad and Tobago is also making significant strides in the sustainable energy space in areas such as renewable energy, energy efficiency, alternative fuels and the green hydrogen economy, with the largest utility scale solar electricity generation facility in the Caribbean currently under development.

A Manufacturing Hub

Trinidad and Tobago's manufacturing sector is the largest in the English-speaking Caribbean and is the second largest contributor to local GDP as at Q1 2022. In 2021,

the most recent year of published GDP figures, Manufacturing as defined by the International Standard Industrial Classification of All Economic Activities (ISIC) accounted for 19.5% of local GDP. This was primarily driven by the Petroleum and Chemical Products sub sector of manufacturing which accounted for 10.7%. The Food, Beverages and Tobacco Products sub sector was the second largest component of Manufacturing at 6.3% followed by Other manufactured products at 1.9% and Textiles, clothing, leather, wood, paper and printing at 0.6%. Source: CSO, 2022

WHY INVEST IN MANUFACTURING?

Trinidad and Tobago is an ideal location for the setting up of manufacturing enterprises within the Caribbean. Its robust logistics infrastructure, supported by numerous bi-lateral and multi-lateral trade agreements, have consistently created pathways for manufacturers seeking to widen their access to new markets.

Additionally, T&T's cheap energy costs - facilitated by its hydrocarbons industry - significantly boosts the capacity of manufacturers to offer competitively priced exported products.

The availability and abundant supply of affordable electricity and natural gas gives the sector a competitive advantage, relative to its regional counterparts in the Caribbean. Past and present developments in other related sectors, such as agro-processing, downstream

petrochemicals and logistics, serve to shore up the sector by creating useful value-chain linkages.

Some of the other key areas of manufacturing include:

- **Printing & Packaging Products**
- Chemicals and non-metallic materials
- Wood and wood related products
- **Construction and concrete** products

INVESTMENT OPPORTUNITIES

GAS-BASED DOWNSTREAM ENERGY

Liquefied Natural Gas

T&T is already a world player in LNG exports from the world class Atlantic LNG facility. At this time, it is prudent that a regional hub for LNG is considered, targeting the needs of regional markets. As such, emphasis is also being placed on LNG bunkering as well as small-scale modular projects.

Alternative Fuels & Fuel
 Additives - CNG, Petrochemicals
 for Fuels (eg: flex fuels), DME

There are potential investment opportunities in the development, production and utilisation of alternative fuels and fuel additives as the country seeks to increase the efficiency of transportation fuels as well as minimise the carbon footprint from fossil fuels sources for both on-land vehicles and for offshore vessels.

Metals Processing -Aluminum

The processing of metals provides the platform for the creation of substantial employment opportunities, the development of specialised skill sets, as well as technology transfer in the development of new products. The metals processing industry is also power-intensive. However, investors in Trinidad and Tobago can benefit from the development of such an industry due mainly in part to the competitively priced electricity cost for such an industry. Examples of downstream industries that can be established from a metals-processing downstream industry include: **Galvanized materials:** Roofing materials: Rebars: Electrical Cables; Wires; Skid and Vessel platforms; Pressure Vessels, Storage Tanks; Rims, Rods; Sheets; Angles, Flats, Billets;

Roofing materials; Ingots; Vehicle body parts; Foil; Doors and Windows.

Downstream Methanol - DME and Plastics

The development of a plastics manufacturing industry as a component of downstream energy is of paramount importance for diversification of the energy industry. The main pillars of this effort would lead to a more vibrant consumer industry that is energy-sector driven. This industry would include a vast variety of plastic products, for both domestic and export demand. The collaborative efforts of the energy and manufacturing sectors can lend to a major increase in local employment and national GDP growth.

Downstream Ammonia – Urea, Fertiliser Applications

Opportunities exist for smaller gas-based industries to be established using the output from primary chemical production facilities or by developing fully integrated processing plants. Downstream ammonia products lend to a variety of consumer products that are in high demand, such as fertilisers, which ultimately boost food production.

Inorganic Chemicals

Since processing industries for inorganic chemicals do not primarily rely on natural gas as a raw material, there is a broad scope for developing these products in Trinidad and Tobago. Examples of such applications include food preservatives, water treatment chemicals, industrial chemicals, pharmaceuticals, etc. Such industries are not highly capital intensive and are relatively easy to establish in terms of resources and raw material requirements.

Biochemicals - Natural Gas to Protein

Protein consumption is necessary for the health and benefit of living organisms. Protein can add quality and physical profile to food and can enter the market, even as an additive to food products. In order to lower prices of food products and maintain a high amino acid content in healthy products, protein can be mixed into a variety of food products, especially in the case of fish meal and feed products for poultry and livestock. The natural gas requirement and other utilities/inputs that are required to produce single-cell protein are minimal, when compared to the dominant petrochemicals industry. Additionally, the development of specialised skill sets and opportunities for R&D would be prevalent and required for the development of such an industry.

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SUSTAINABLE ENERGY

Renewable Energy Electricity Generation

With a target of 30% of electricity from renewable sources by 2030, T&T has placed focus on solar PV and wind (offshore and onshore) energy electricity generation. Trinidad and Tobago has favourable solar irradiation levels and being an island there is particular interest in offshore wind energy technology deployment.

Manufacturing of solar and wind components

Trinidad and Tobago is positioned to become a manufacturing

centre for renewable energy components for the solar and wind energy industry which would support the growing demand in the Caribbean and other end markets in the Americas. The International Renewable Energy Agency (IRENA) forecasts that Latin America and the Caribbean will grow their installed solar capacity by a factor of 40 by 2050. To service this demand, T&T proposes a manufacturing cluster to ensure synergies and cost efficiencies.

Green hydrogen and green chemicals

T&T's industry is highly specialised in gas and oil with the corresponding infrastructure and a focus on ammonia and methanol production. Trinidad and Tobago and the Caribbean region have significant renewable energy potential.

These factors facilitate a fantastic opportunity for the development of the green hydrogen economy with production of green chemicals, with the country's strong petrochemical industry as a foundation. The first low-carbon hydrogen production facility in Trinidad and Tobago is currently under development.

Energy Storage -Battery Assembly

Energy storage is a rapidly growing segment of the clean energy sector, and prices have dropped dramatically over the last several years. According to Wood Mackenzie's 2020 Global Storage Outlook, deployments will grow 13-fold over the next six years, from a 12-gigawatt-hour market in 2018 to a 158-gigawatthour market in 2024. Trinidad and Tobago invites potential investors

to propose battery component assembly and manufacturing projects as well as energy storage projects.

OTHER MANUFACTURING

Food and Beverage

Trinidad is the leading manufacturer of consumer goods for the CARICOM Market with food and beverages accounting for 24% of exports. Opportunities exist for the manufacturing of prepared food stuff, beverages and spirits.

Pulp and Paper Manufacturing

Opportunities exist for the manufacturing of products using wood as a raw material to produce pulp, paper, paperboard and other cellulose-based products.

INCENTIVES

A portfolio of attractive incentives is available to manufacturers in Trinidad and Tobago.

Import Concessions

Companies can import packaging materials via the Second Schedule of the Customs Act duty - free, based on certain conditions. An extract of the Second Schedule is provided below:

- A cost-effective operational environment - lowest cost of electricity in the Caribbean at \$0.05 USD per KWH.
- A strategic export and suppliernetwork location between the Americas, Trinidad and Tobago's location at the southernmost end of the Caribbean archipelago minimises the threat

of operational downtime for businesses during the region's annual hurricane season.

- Containers of all kinds (except those containers that the Comptroller identifies as being manufactured in the country) are imported for use exclusively as containers for the packing or packaging of any produce or manufacture of the country.
- Two major seaports for sea freight (Port of Port of Spain, and Port of Point Lisas) and one major airport for air freight (Piarco International Airport) for importing raw materials and exporting finished goods.
- Access to modern industrial estate opportunities such as e

TecK's Phoenix Park Industrial Estate and the Tamana InTech Park.

- Goods of all kinds including labels (except those goods that the Comptroller identifies as being manufactured in the country) which are imported for use exclusively in the manufacture or repair of containers or parts thereof, and will form part of, containers for packing or packaging any produce or manufacture of the country subject to such conditions as to the keeping or rendering of accounts, in respect of the use or disposal of such goods as the Comptroller may require.
- Containers (including and fashioned parts thereof) of such

description or for use in such undertakings as the Government may from time to time approve, subject to such conditions in respect of disposal of such containers including component and fashioned parts thereof as the Comptroller may require.

Duty-Free Treatment

Manufacturing enterprises are allowed certain duty-free treatment based upon the provisions of the Third Schedule of the Customs Act, Chapter 78:01 (as amended). These concessions are discretionary and require application to the Ministry of Trade and Industry (MTI). Under the provisions of the Third Schedule of the Customs Act, a company can benefit from duty exemptions on:

- · Raw materials
- Machinery
- Equipment
- · Packaging materials

The application can be done via **TTBizLink**.

Research and Development Facility under exporTT

The Research and Development Facility is a grant fund to provide financial support to the non-energy manufacturing and services sector. The aim of the project is to stimulate and support investment in new and advanced technology and innovation as a competitiveness enhancement tool for enterprises in the non-energy manufacturing and services sectors. (Source: www.exportt.co.tt)

Export Booster initiative under the Ministry of Trade and Industry

The objective of the initiative is to promote the exports of manufactured goods. The Export Booster Initiative is made up of 16 initiatives under three broad strategic areas: Export Promotion (Accelerating Internationalisation); Capacity Building; and Institutional Strengthening.

Promotional Expenses Allowance

Promotional expenses incurred by local firms to promote the expansion



of existing markets and/or the creation of new ones for the export of specified services or locally produced goods are tax deductible as an expense at 150% of the actual outlay. Tax-deductible promotional expenses are defined as those expenses incurred in respect of specified services or goods produced in Trinidad and Tobago. This includes such items as advertising in foreign markets and participation in trade fairs and missions.

Fiscal Incentives

An approved enterprise, which must be a locally incorporated resident corporation, may be granted an exemption from corporation tax for a period of up to 10 years, depending on the category under which it is approved. Exemption may be total or partial. Subject to approval, profits may be distributed tax free to shareholders, except in the case of certain non-resident shareholders, where the relief is restricted to the amount of tax that exceeds their liability in their country of residence.

Net losses during the tax holiday period (i.e. the excess of total losses over total profits) may be carried forward for set-off without limitation for five years from the end of the tax holiday period, after which the normal set-off provisions for losses apply.

Amendments to the Corporation Tax Act for SMEs

These amendments include:

- an increase in the incentive period from 5 years to 10 years;
- a full tax holiday for the first five years following listing on the Trinidad and Tobago Stock Exchange (TTSE) instead of the current reduced corporation tax rate of 10%; and
- a 50% tax holiday for the next five years following listing on the TTSE.

Value Added Tax (VAT) Waiver on Imported Construction Material for Approved Building Projects

This entails the removal of VAT on the importation of building materials to be used exclusively in connection with approved building projects, except for certain items such as road paving and aggregate material.

EXIM Bank Forex Facility

The EXIM Bank Forex Facility which was launched in 2018 is targeted to export manufacturers with an annual revenue of TTD \$50K - \$100M. Eligible applicants can purchase U.S. currency for the following:

- · Raw material purchases
- Shipping line costs
- Equipment and machinery purchases

KEY SOURCES OF INFORMATION

 National Energy Corporation of Trinidad and Tobago