

Preamble:

Business Delegation to Kazakhstan: Exploring Opportunities in the Downstream Oil & Gas Sector

Kazakhstan, one of the world's leading oil and gas producers, plays a strategic role in global energy markets with its vast reserves and expanding refining and petrochemical industries. The country has made significant investments in modernizing its downstream sector, including refining capacity upgrades, petrochemical production expansion, and infrastructure development to enhance value-added processing.

As part of ASPRI's commitment to fostering international collaboration and business growth, we are leading a delegation of Singapore-based companies specializing in engineering, maintenance, and process industry services to Kazakhstan. This mission aims to gain firsthand insights into the country's oil and gas downstream landscape, explore partnership opportunities, and understand regulatory frameworks that impact business entry and operations.

Key areas of interest include:

Refinery Upgrades & Maintenance – Kazakhstan's refineries, including those in Atyrau, Pavlodar, and Shymkent, are undergoing modernization, presenting opportunities for engineering, procurement, and maintenance services.

Petrochemical Industry Growth – The development of new petrochemical facilities, particularly in polypropylene and polyethylene production, is creating demand for specialized expertise in plant construction, turnaround services, and technical support.

Sustainability & Digitalization – With an increasing focus on energy efficiency and sustainable practices, there is potential for collaboration in digital solutions, process optimization, and environmental technologies.

This delegation seeks to connect with key stakeholders, including government agencies, industry associations, and major oil and gas companies, to explore avenues for business collaboration and investment. By leveraging Singapore's expertise in process industry services, we aim to establish strategic partnerships that contribute to Kazakhstan's energy sector growth while opening new opportunities for our members.

Oil & Gas Industry in Kazakhstan: A Strategic Overview

1. Introduction

Kazakhstan is a key player in the global oil and gas industry, boasting some of the world's largest hydrocarbon reserves. As the largest landlocked country and the largest economy in Central Asia, Kazakhstan's energy sector is crucial to both its domestic economy and international energy markets. The oil and gas industry contributes approximately **40% of government revenues** and **60% of export earnings**, making it a vital economic pillar.

Kazakhstan's oil and gas strategy is centered on **expanding production, modernizing refineries, developing petrochemicals, and improving energy efficiency**. The government actively promotes foreign investments, particularly in infrastructure and downstream sectors, to strengthen its refining and petrochemical capabilities.

2. Kazakhstan's Oil & Gas Reserves and Production

Oil Reserves & Production

- Kazakhstan holds an estimated **30 billion barrels** of proven oil reserves, placing it among the **top 12 globally**.
- The country produces around **1.8 million barrels per day (bpd)**, with plans to increase output through investments in key fields.
- Major oil-producing regions include the **Tengiz, Kashagan, and Karachaganak** fields, which collectively account for **over 75% of total production**.
- Kazakhstan is a key exporter, primarily supplying **China, Europe, and Russia** through pipelines and seaborne routes.

Natural Gas Reserves & Production

- Kazakhstan has **3.8 trillion cubic meters (tcm)** of proven natural gas reserves.
- Gas production is **rising**, but much of it is reinjected into oil reservoirs to boost crude extraction.
- The country is focusing on **gas processing and petrochemical development** to add value to its raw resources.

3. Key Players in Kazakhstan's Oil & Gas Sector

Kazakhstan's energy sector is a mix of **state-owned enterprises (SOEs)** and **multinational companies (MNCs)**.

Major Operators & Investors

- **KazMunayGas (KMG)** – The **national oil company (NOC)**, responsible for upstream and downstream activities.
- **Tengizchevroil (TCO)** – A joint venture led by **Chevron** (50%) that operates **Tengiz**, one of the world's largest oil fields.
 - Established in 1993, Tengizchevroil is a partnership between Chevron, ExxonMobil, KazMunayGas, and LukArco.
 - The **Tengiz field** is one of the deepest and largest producing oil fields globally, located in western Kazakhstan near the Caspian Sea.
 - The **Future Growth Project-Wellhead Pressure Management Project (FGP-WPMP)** is an ongoing major expansion aimed at increasing Tengiz's production capacity by approximately **260,000 barrels per day**, further solidifying its role in Kazakhstan's energy sector.
 - Tengizchevroil also invests in sustainability and environmental projects, reducing gas flaring and implementing carbon reduction initiatives.
- **North Caspian Operating Company (NCOC)** – Operates **Kashagan**, a giant offshore field, with stakeholders including **Shell, ExxonMobil, TotalEnergies, CNPC, and Eni**.
- **Karachaganak Petroleum Operating (KPO)** – Manages the Karachaganak gas-condensate field, with partners **Shell, Eni, Chevron, and Lukoil**.

4. Downstream Sector: Refining & Petrochemicals

Refining Industry

Kazakhstan operates **three main oil refineries**:

1. **Atyrau Refinery** – The oldest refinery, upgraded for deeper refining capacity.
2. **Pavlodar Refinery** – Strategically located to supply northern Kazakhstan.
3. **Shymkent Refinery** – Serves the southern region and export markets.

Key challenges in the refining sector include **insufficient capacity to meet domestic demand**, leading to imports of refined products. To address this, Kazakhstan is **modernizing its refineries** and seeking international expertise for efficiency improvements.

Petrochemical Development

- Kazakhstan is investing heavily in **petrochemicals** to reduce reliance on raw material exports and move up the value chain.

- New projects include **polypropylene and polyethylene plants in Atyrau and Aktau**, expected to boost Kazakhstan's role as a regional supplier of petrochemicals.

5. Infrastructure & Export Routes

Kazakhstan's landlocked geography makes efficient export infrastructure crucial. The country uses pipelines, rail, and maritime routes for oil and gas exports.

Key Export Pipelines

- **Caspian Pipeline Consortium (CPC)** – The primary route for oil exports to **Europe** via Russia's Black Sea port.
- **Kazakhstan-China Oil Pipeline** – A direct export route supplying China.
- **Uzen-Atyrau-Samara Pipeline** – Links Kazakhstan's fields to Russia's pipeline network.

Kazakhstan is also **diversifying export routes** to reduce dependence on Russian infrastructure, particularly in light of geopolitical shifts.

6. Investment Climate & Business Opportunities

Foreign Investment & Business Climate

- The Kazakh government **welcomes foreign investment**, particularly in **technology transfer, infrastructure, and digitalization**.
- A key priority is attracting **engineering, procurement, and construction (EPC) services, maintenance & turnaround specialists, and environmental solutions** for sustainable operations.
- Special Economic Zones (SEZs) and investment incentives, such as **tax exemptions and duty-free imports**, are available for strategic projects.

Business Opportunities in Downstream & Services

Refinery Upgrades & Maintenance – Growing demand for EPC, maintenance, and operational efficiency solutions. **Petrochemical Expansion** – Opportunities in plant construction, specialty chemicals, and technical support. **Sustainability & Digitalization** – Increasing focus on energy efficiency, digital solutions, and emissions reduction.

7. Challenges & Risks

Despite its vast potential, Kazakhstan's oil and gas sector faces several challenges: **⚠️ Geopolitical Risks** – The ongoing Russia-Ukraine war has disrupted some logistics and trade routes. **⚠️ Regulatory Complexity** – Navigating Kazakhstan's evolving regulatory

framework can be complex for foreign firms. **Market Competition** – Established global firms dominate, making local partnerships key to market entry.

However, the **government’s commitment to economic diversification, energy security, and industrial growth** presents substantial opportunities for businesses ready to engage in Kazakhstan’s evolving oil and gas landscape.

8. Conclusion

Kazakhstan’s oil and gas sector is at a turning point, with increasing emphasis on **downstream expansion, sustainability, and digital transformation**. The country offers **strong business potential** for companies specializing in refining, petrochemicals, engineering services, and technological innovation. With the right approach and partnerships, investors can leverage Kazakhstan’s **growing energy market** for long-term success.

For businesses looking to engage with Kazakhstan’s energy sector, **understanding local regulations, forming strategic partnerships, and aligning with national priorities** will be essential for success.

