



## Oil, Gas and Energy NKEA Fact Sheet

The oil, gas and energy industry plays a prominent role in the Malaysian economy, contributing to one-fifth of the national GDP over the past decade. This NKEA places emphasis on building Malaysia's services and manufacturing sector while retaining incentives to ensure constant production levels, as well as moving into alternative forms of energy, ranging from solar power to electric vehicles. Collectively, the Entry Point Projects for this NKEA are projected to generate GNI of RM131.4 billion and create 52,300 new jobs by 2020.

### List of Entry Point Projects (EPPs)

#### **EPP 1: Rejuvenating existing fields through enhanced oil recovery (EOR)**

EPP 1 encourages the use of Enhanced Oil Recovery (EOR) – a technique that uses gas, chemical injection or thermal flooding – to improve oil recovery from industry norms.

As the champion of this EPP, national oil firm PETRONAS has introduced new arrangements in production sharing contract (PSC) terms to attract and reward companies or investors using the EOR techniques.

##### **EPP Champion:**

- PETRONAS

#### **EPP 2: Developing small fields through innovative solutions**

PETRONAS is working with the industry to tap the potential of Malaysia's small fields, each of which hold at least 30 million barrels of recoverable oil. The national oil firm reviewed production sharing contract (PSC) terms to provide sufficient incentives for operators of small fields, and also sourced for exploration and production (E&P) operators who specialise in developing small fields.

##### **EPP Champion:**

- PETRONAS

#### **EPP 3: Intensifying exploration activities**

This EPP will boost new and sizeable discoveries to maintain Malaysia's position as one of Asia's top oil and gas producers. Production sharing contract (PSC) terms will be reviewed

and new petroleum contract arrangements introduced to expedite exploration investment projects.

**EPP Champion:**

- PETRONAS

**EPP 4: Building a regional storage and trading hub**

This EPP leverages Malaysia's strategic port locations on major shipping routes for crude oil and refined products, its proximity to Singapore, land availability and deepwater marine accessibility to establish an oil storage hub. A major strength of this hub will be its ability to complement Singapore's oil and gas storage capabilities to create a regional centre for oil and gas services.

Four emerging business drivers were identified to support this EPP:

1. Break bulk of larger crude oil and fuel cargoes from outside Asia to smaller cargoes to destinations within the region.
2. Reducing costs by blending crude oil output from regional producers before supplying as feedstock to regional refiners.
3. Blending various refinery outputs to meet the diverse mix of downstream products.
4. Tapping arbitrage opportunities, where future markets for oil products can be hedged via physical storage.

**EPP Champions:**

- Malaysia Petroleum Resources Corporation
- Dialog Group Bhd

**EPP 5: Unlocking premium gas demand in Peninsular Malaysia**

With global demand for liquefied natural gas (LNG) expected to reach 400 million tonnes a year in 2025, this EPP will import LNG farther afield at market prices to counter declining domestic production and increase industrial demands.

**EPP Champions:**

- PETRONAS
- Dialog Group Bhd

**EPP 6: Attracting MNCs to bring their global oil field services and equipment operations to Malaysia**

This EPP aims to attract 10-20 major firms in the oil field services and equipment (OFSE) industry to base their business operations in Malaysia. This is expected to help transform the country into a cost-efficient base for engineering, procurement, construction, installation and commissioning activities in the Asia Pacific region.

In addition, Malaysia Petroleum Resources Corporation was formed to work with the Government and its agencies such as the Ministry of International Trade and Industry (MITI), Ministry of Finance (MoF), Malaysian Industrial Development Authority (MIDA), Malaysian External Trade Development Corporation (MATRADE), state Governments and regional economic corridor authorities to encourage private investments, formulate solutions to address key investor issues as well as track the development of key projects.

**EPP Champion:**

- Malaysia Petroleum Resources Corporation

**EPP 7: Consolidating Domestic Fabricators**

This EPP encourages market-led consolidation of Malaysian fabricators to increase financial resources and increase knowledge and technology transfer, thus becoming more competitive in the region.

**EPP Champion:**

- Malaysia Petroleum Resources Corporation

**EPP 8: Developing Engineering, Procurement and Installation Capabilities and Capacity through Strategic Partnerships and Joint Ventures**

This EPP encourages world-class oil field services and equipment (OFSE) players to form joint ventures with local companies to grow local engineering, procurement, construction, installation and commissioning (EPCIC) capabilities and increase the international footprint of Malaysian companies.

**EPP Champion:**

- Malaysia Petroleum Resources Corporation

**EPP 9: Improving Energy Efficiency**

This EPP focuses on improving Malaysia's power and fuel consumption, potentially making companies more competitive and reducing household electricity bills. Initiatives proposed include:

1. The Government leading by example on energy efficiency practices.
2. Stimulating sales of energy efficient appliances.
3. The Government working with national utility firm Tenaga Nasional Berhad (TNB) to make co-generation economically viable.
4. Regulating for better insulation of new and renovated buildings.
5. Encouraging sales of energy efficient vehicles by offering rebates to encourage adoption of hybrid or electric vehicles.

**EPP Champions:**

- Ministry of Energy, Green Technology and Water (KeTTHA)
- Sustainable Energy Development Authority (SEDA)

### **EPP 10: Building Up Renewable Energy and Solar Power Capacity**

This EPP aims to harness renewable energy as a viable alternative to reduce Malaysia's reliance on fossil fuels, minimise carbon emissions, encourage job creation, and spur foreign direct investments. It also follows proposals from the 10<sup>th</sup> Malaysia Plan, which targets for renewable energy to account for 5% of the total capacity mix in 2015 (it is currently less than 1% of the country's mix). Under the National Renewable Energy Policy, solar power should contribute a minimum of 220 megawatts to the total capacity mix.

A regulatory framework was also developed for the feed-in tariff (FIT) mechanism, which allows the sale of locally produced electricity to power utilities at a fixed premium for a specific period to help the Government achieve its renewable energy goals.

The Sustainable Energy Development Authority Malaysia targets a cumulative installed renewable energy capacity of 450.64MW by the first half of 2014.

#### **EPP Champions:**

- Ministry of Energy, Green Technology and Water (KeTTHA)
- Sustainable Energy Development Authority (SEDA)

### **EPP 11: Deploying Nuclear Energy for Power Generation**

Malaysia is considering the deployment of nuclear energy as an option to meet future demand and diversify the energy mix for Peninsular Malaysia. The Nuclear Power Development Steering Committee, driven by the Ministry of Energy, Green Technology and Water (KeTTHA), has since 2009 conducted studies to prepare a Nuclear Power Infrastructure Development Plan (NPIDP). The committee also worked on nuclear pre-feasibility and initial site selection studies.

In 2011, the Government formed the Malaysian Nuclear Power Corporation (MNPC) to lead the feasibility study of this project, taking into consideration safety and environment impacts.

#### **EPP Champions:**

- Ministry of Energy, Green Technology and Water (KeTTHA)
- Malaysia Nuclear Power Corporation

### **EPP 12: Tapping Malaysia's Hydroelectricity Potential**

Through this EPP which is spearheaded by the Sarawak state Government, Sarawak Energy Bhd (SEB) and the Regional Corridor Development Authority (RECODA) will plan, construct, own and operate Sarawak's hydroelectric dams, a RM20.2 billion investment comprising five dams with a capacity of five gigawatts.

SEB and RECODA will also attract energy intensive industries to the state, identify the necessary supporting infrastructure and facilities, and negotiate transmission lines and electricity supply to the Borneo Island with neighbouring Indonesia and Brunei.

**EPP Champions:**

- Sarawak Energy
- Sarawak Corridor of Renewable Energy
- Sarawak State Government

**EPP 13: Increase Petrochemical Outputs**

This EPP aims to help PETRONAS expand its petrochemical business through the development of the Refinery and Petrochemical Integrated Development (RAPID) project in Johor and the Sabah Ammonia Urea (SAMUR) project.

RAPID, with a cost of RM60 billion, represents the largest green field investment for PETRONAS and in Asia Pacific. Meanwhile, SAMUR, estimated at US\$1.15 billion, involves the construction of a new fertiliser plant and is expected to be commissioned by 2015.

**EPP Champions:**

- PETRONAS
- PETRONAS Chemical Groups Bhd

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