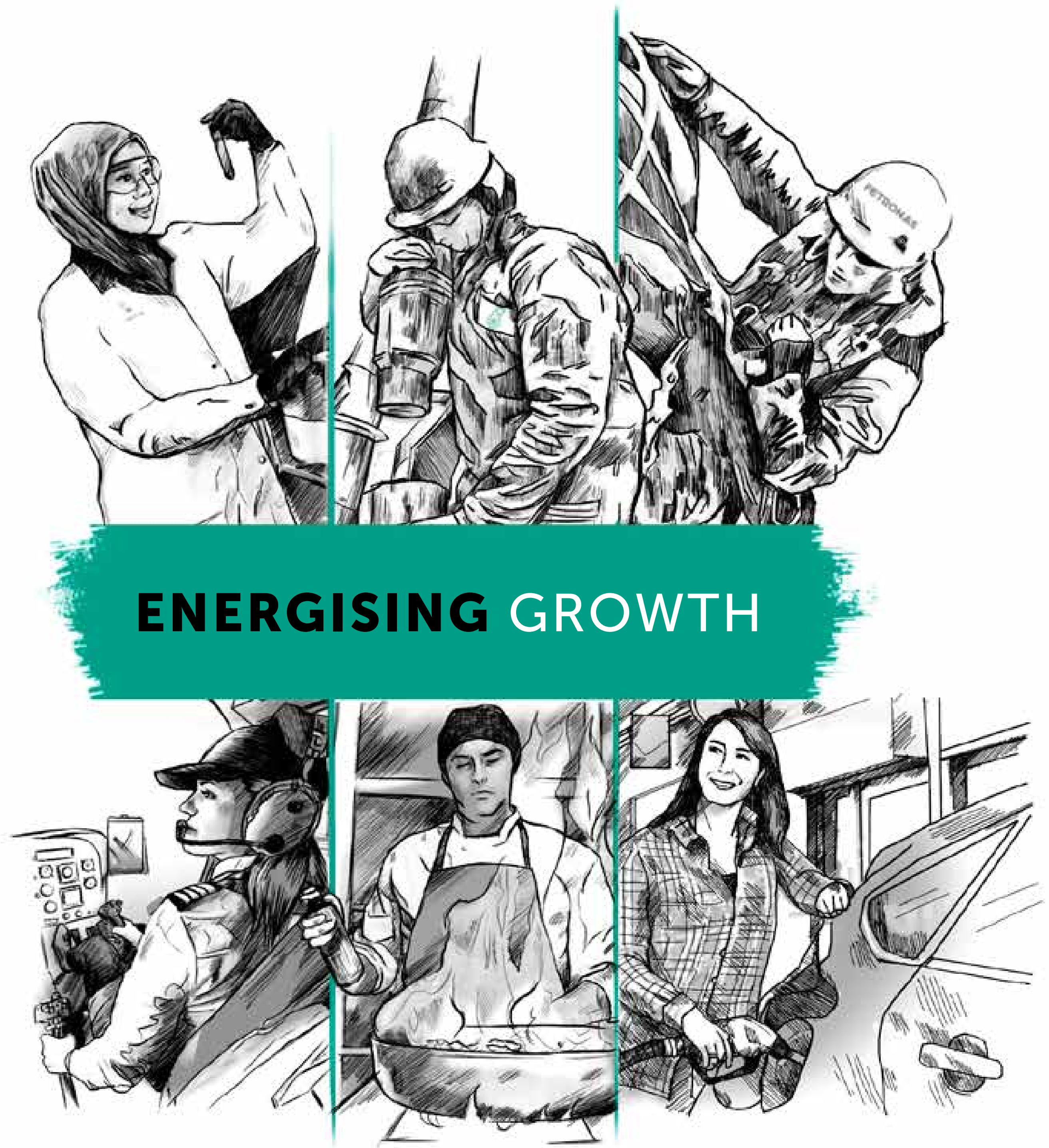
www.petronas.com

PETRONAS

Petroliam Nasional Berhad (PETRONAS) (20076-K)
Tower 1, PETRONAS Twin Towers, Kuala Lumpur City Centre
50088 Kuala Lumpur, Malaysia

Petroliam Nasional Berhad (PETRONAS) • Annual Report 2018

PETRONAS



ENERGISING GROWTH

ANNUAL REPORT 2018

Cover Rationale

ENERGISING GROWTH

Energy that is accessible and affordable is the foundation of inclusive growth. As we continue to build off the momentum to bring sustainable energy to all corners of the Earth, we are reminded of the daily lives that we touch and empower from the work that we do.

As global energy demand continues to grow, we take pride in our ability to deliver uninterrupted energy, and the life-changing possibilities that it carries.

Moving forward, we will continue using the transformative power of energy to improve the quality of life, build trust and develop leading-edge solutions, so that we can energise growth wherever we go.

ABOUT THIS REPORT

FRAMEWORKS AND GUIDELINES FOLLOWED

The consolidated financial statements of the PETRONAS Group as at 31 December 2018, comply with the International Financial Reporting Standards (IFRS) valid at the closing date and with the provisions of the Malaysian Financial Reporting Standards (MFRS). Our reporting is also aligned with international guidelines and recommendations.

At PETRONAS, we see reporting as an ongoing and evolving process, not just as an annual exercise. We expect to further evolve and invite your feedback on this Report, as well as our approach to reporting at **digital.comm@petronas.com.** The PETRONAS Annual Report 2018 is available in both print and online versions.

SCOPE AND BOUNDARIES

The report extends beyond financial reporting and includes non-financial performance, opportunities, risks, and outcomes attributable to or associated with our key stakeholders, which have a significant influence on our ability to create value.

The 2018 Annual Report covers the period from 1 January to 31 December 2018 and builds on our previous publications.

The report covers the primary activities of the Group, Upstream, Downstream and Project Delivery & Technology.

ASSESSMENT OF MATERIALITY

Sustainable Value Creation & Material Factors

Every day, we work towards creating safe, secure, and cleaner energy whilst striving towards prosperity for all.

For PETRONAS to deliver value, remain fit for the future and generate positive societal impacts, our actions, policies and processes need to be continuously assessed and refined to adapt to changing times and address evolving challenges.

PETRONAS' new Statement of Purpose is to be a progressive energy and solutions partner enriching lives for a sustainable future. We are committed towards ensuring long-term value creation, as we equip the organisation with the required skills and knowledge to operate in a low-carbon economy.

As the energy sector is undergoing a phase of rapid transition, our sustainability focus is dynamic in nature. We are continuously moving forward with better actions to respond to emerging risks and opportunities presented to us. These include climate change, environmental management, social equity, health and safety of our people, protecting human rights, and acting with the highest integrity and ethical values.

FOCUS AREAS

Our sustainability focus areas are guided by the PETRONAS Corporate Sustainability Framework (CSF), which defines the areas where we have a role to play in managing risks, opportunities, and impacts. The Framework, conceptualised in 2001, was revised in 2016, taking into view our business aspirations, the Paris Agreement, and the United Nations Sustainable Development Goals (UN SDGs). The CSF constitutes nine areas that are applicable to all aspects of our operations, group-wide. This includes our Public Listed Companies, where CSF may be adopted and localised to suit the unique business characteristics and needs.

PETRONAS Corporate Sustainability Framework

Sustainability Area of Focus	Details
Shareholder Value	Fulfilling our responsibility as a business entity to deliver returns to our shareholders through long-term economic value creation.
Natural Resource Use	Promoting optimum use of hydrocarbons and water in our operations through efficient processes and technology application.
Climate Change	Recognising our responsibility as a player in the global energy sector to balance the issue of climate change with the challenge of sustainably producing affordable and reliable energy.
Biodiversity and Ecosystem Services	Ensuring projects and operations do not pose significant impacts on biodiversity and local ecosystems.
Health, Safety and Environment	Ensuring our facilities, products, and services are in accordance with all legal requirements and the industry's best practices to safeguard the health, safety and well-being of our employees, contractors, communities, and the environment.
Governance and Business Ethics	Upholding the organisation's integrity and trustworthiness in delivering value through strong governance mechanisms and ethical business practices.
Human Rights	Respecting internationally-recognised human rights in our operations and ensuring compliance with our Code of Conduct and Business Ethics, and all relevant legal and regulatory requirements.
Corporate Social Responsibility	Investing in sustainable initiatives as a socially responsible organisation, in line with our purpose to contribute to the well-being of society.
Workforce Development	Equipping our workforce with the skills and mindset as we move to deliver sustainable high performance.

ASSESSMENT OF MATERIALITY

MATERIAL FACTORS

PETRONAS' material sustainability factors are based on our periodic materiality assessments to ensure the material factors and information reported are timely and meaningful and includes input and verification by PETRONAS subject matter experts and data owners. As we work towards an integrated reporting format, our reporting processes are constantly reviewed for more efficient and effective ways to incorporate financial and non-financial materiality factors.

In preparing our material factors for FY2018, we have structured them to fall under six main topics – Governance & Ethics; Safety; Climate Change & Environmental Management; Product Stewardship & Supply Chain; Health, Wellness & Workplace; and Social Responsibility. All material factors are accompanied by disclosure management approaches, year-on-year performance data, as well as key highlights.

Topic	Material Factors	Capitals Employed
Governance & Ethics	• Good Governance • Compliance	• Intellectual Capital • Human Capital • Social and Relationship Capital
Safety	• Personal Safety • Process Safety • Emergency Preparedness and Crisis Management • Security	• Human Capital • Social and Relationship Capital
Climate Change & Environmental Management	• Climate Change • Environmental Management • Biodiversity and Ecosystem Services	• Natural Capital
Health, Wellness & Workplace	• Health & Wellness • Human Capital	• Human Capital • Social and Relationship Capital
Product Stewardship & Supply Chain	• Product Stewardship • Supply Chain	• Manufactured Capital • Intellectual Capital
Social Responsibility	• Human Rights • Corporate Social Responsibility	• Social and Relationship Capital

Our materiality factors are aligned with the UN SDGs since it came into effect in 2016. The SDGs represent an opportunity for us to prioritise business-led solutions that generate the greatest positive impact to society. It enables us to build on our efforts towards nation-building and the global sustainability agenda, whilst enhancing partnerships to deliver sustainable value creation.

In 2018, we identified seven SDGs that are relevant to our corporate practices. Moving forward, we will link the SDGs more closely to our business operations, sustainability governance, key performance metrics, and material sustainability factors.

SECTION

1

WE ARE PETRONAS

Petroliam Nasional Berhad (PETRONAS) is Malaysia's national oil and gas company, ranked amongst the largest corporations in the world.

PETRONAS AT A GLANCE

We deliver energy efficiently and reliably, having built capabilities across every stage of the oil and gas value chain.

We maximise the value of every molecule through our fully integrated business model. We continue to strengthen our portfolio of conventional and unconventional resources, broaden our offering of diverse petrochemical products and maintain our track record of successful project delivery.

UPSTREAM

See Upstream pages 48 to 53.

Total LNG sales volume of
28.94
million metric tonnes

Over 390
BCE LNG loadable
delivered from the PETRONAS LNG Complex in Bintulu, Sarawak

Average production
2,361 kboe/d

As we progress towards a low-carbon energy future, we continue to leverage technology, technical capabilities and our diverse, resilient, and competent workforce to sustainably deliver energy to the world.

DOWNSTREAM

See Downstream pages 54 to 59.

Revenue of
RM128.0 billion

Sales volume at
25.2 billion litres

Total of
265 million man hours

Launch of
NEW PETRONAS PRIMAX 95 with Pro-Drive

5-Time Consecutive World Constructors' Champion
in Formula One™

Roll-out of
Setel and **ROVR** to **drive new customer experience**

Reliability
97.9%

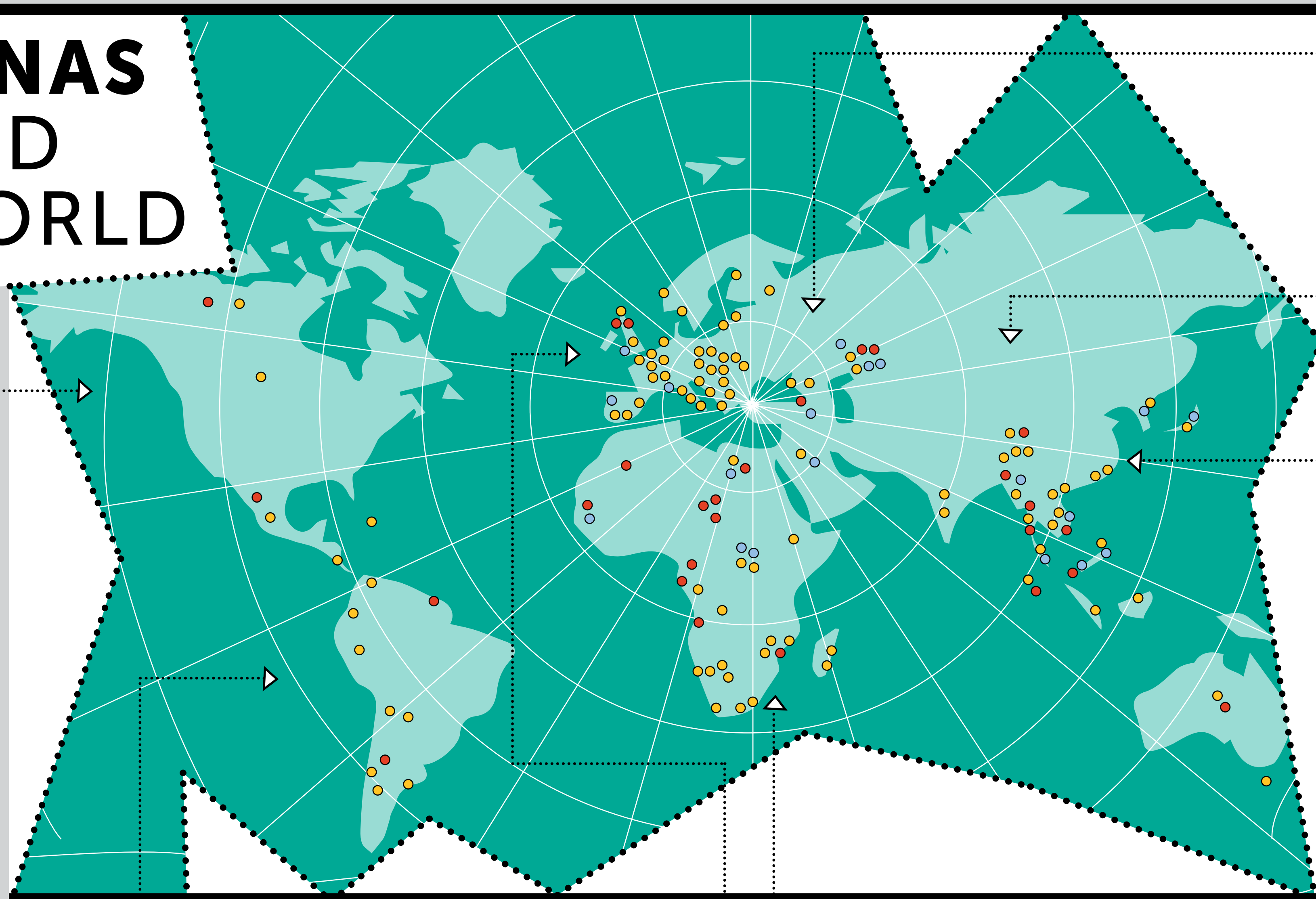
Overall Equipment Effectiveness
94.4%

Petrochemical Plant Utilisation
91.9%
*Nexant

Pengerang Integrated Complex (December 2018)
97%

UPSTREAM   DOWNSTREAM   PROJECT DELIVERY & TECHNOLOGY

PETRONAS AROUND THE WORLD



MIDDLE EAST

Upstream
- **Iraq** – Development, Production
- **Oman** – Development, Production

Downstream
- **Egypt** – Lubricants • **Iran** – Lubricants
- **Iraq** – Lubricants • **Jordan** – Lubricants
- **Saudi Arabia** – Lubricants • **United Arab Emirates** – Lubricants

Project Delivery & Technology
- **Iraq** • **United Arab Emirates**

CENTRAL ASIA

Upstream
- **Azerbaijan** – Development, Production
- **Turkmenistan** – Development, Production

Downstream
- **Turkey** – Lubricants

Project Delivery & Technology
- **Azerbaijan** • **Turkmenistan**

ASIA PACIFIC

Upstream
- **Australia** – Development, Production, LNG • **Brunei** – Exploration, Development
- **China** – LNG Marketing • **India** – LNG Marketing • **Indonesia** – Exploration, Development, Production
- **Japan** – LNG Marketing • **Malaysia** – Exploration, Development, Production, LNG • **Malaysia-Thailand Joint Development Area** – Exploration, Development, Production • **Myanmar** – Exploration, Development, Production
- **South Korea** – LNG Marketing • **Taiwan** – LNG Marketing • **Thailand** – LNG Marketing • **Vietnam** – Production

Downstream
- **Australia** – Petrochemicals, Lubricants • **Bangladesh** – Lubricants • **Cambodia** – Lubricants • **China** – Petrochemicals, Lubricants • **India** – Petrochemicals, Lubricants • **Indonesia** – Petrochemicals, Lubricants • **Japan** – Petrochemicals, Lubricants • **Malaysia** – Petrochemicals, Retail, Refinery, Lubricants • **Myanmar** – Lubricants • **Nepal** – Lubricants • **New Zealand** – Petrochemicals, Lubricants • **Pakistan** – Lubricants • **Philippines** – Petrochemicals
- **Singapore** – Petrochemicals, Lubricants • **South Korea** – Petrochemicals • **Sri Lanka** – Lubricants • **Taiwan** – Petrochemicals • **Thailand** – Petrochemicals, Lubricants • **Vietnam** – Petrochemicals, Lubricants

Project Delivery & Technology
- **Brunei** • **China** • **India** • **Indonesia** • **Japan** • **Malaysia** • **Myanmar** • **Philippines** • **South Korea** • **Vietnam**

NORTH AMERICA

Upstream
- **Canada** – (Unconventional) Exploration, Development, Production, LNG
- **Mexico** – Exploration

Downstream
- **Canada** – Lubricants • **Costa Rica** – Lubricants • **Dominican Republic** – Lubricants • **El Salvador** – Lubricants
- **Guatemala** – Lubricants • **Honduras** – Lubricants • **Mexico** – Lubricants
- **United States of America** – Petrochemicals, Lubricants

LATIN AMERICA

Upstream
- **Suriname** – Exploration • **Argentina** – (Unconventional) Development, Production

Downstream
- **Argentina** – Lubricants • **Bolivia** – Lubricants
- **Brazil** – Lubricants • **Chile** – Lubricants • **Colombia** – Lubricants • **Ecuador** – Lubricants • **Guyana** – Lubricants
- **Paraguay** – Lubricants • **Peru** – Lubricants • **Suriname** – Lubricants • **Uruguay** – Lubricants

EUROPE

Upstream
- **Ireland** – Production • **United Kingdom** – LNG & Gas Trading, Gas Storage

Downstream
- **Austria** – Lubricants • **Belgium** – Lubricants • **Bulgaria** – Lubricants
- **Czech Republic** – Lubricants
- **Denmark** – Lubricants • **Finland** – Lubricants • **France** – Lubricants
- **Germany** – Lubricants • **Greece** – Lubricants • **Hungary** – Lubricants
- **Italy** – Lubricants
- **Moldova** – Lubricants
- **Netherlands** – Lubricants
- **Norway** – Lubricants
- **Poland** – Lubricants • **Portugal** – Lubricants • **Romania** – Lubricants
- **Russia** – Lubricants • **Slovakia** – Lubricants • **Slovenia** – Lubricants
- **Sweden** – Lubricants • **Switzerland** – Lubricants • **United Kingdom** – Lubricants

Project Delivery & Technology
- **Italy** • **Spain** • **United Kingdom**

AFRICA

Upstream
- **Angola** – Exploration • **Chad** – Production • **Egypt** – Development, Production, LNG • **Gabon** – Exploration • **Gambia** – Exploration
- **Republic of South Sudan** – Development, Production
- **Republic of Sudan** – Development, Production • **Senegal** – Exploration

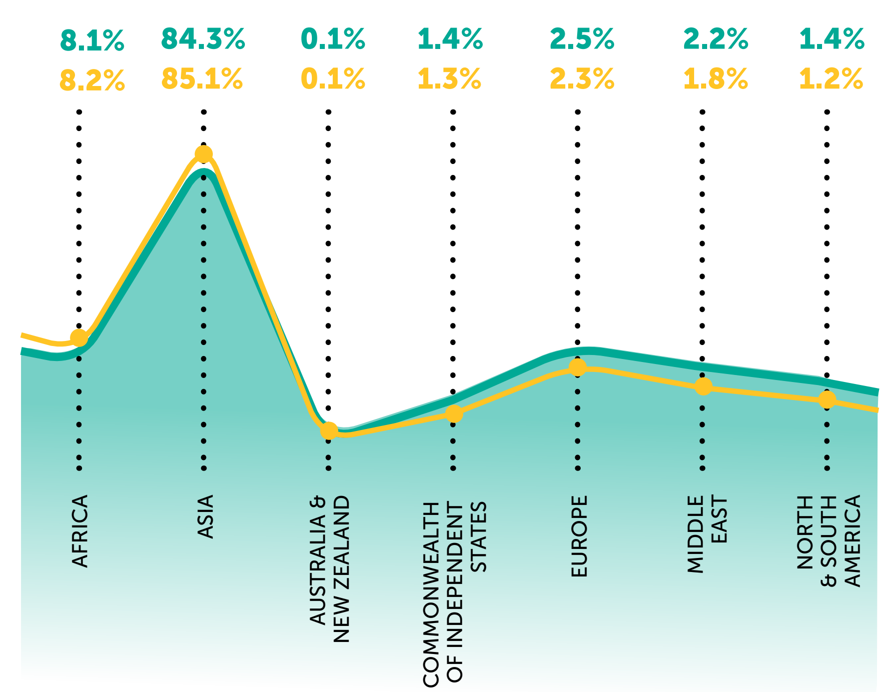
Downstream
- **Algeria** – Lubricants • **Angola** – Lubricants • **Botswana** – Retail, Lubricants • **Burundi** – Lubricants • **Cameroon** – Lubricants • **Chad**
- **Cote D'Ivoire** – Lubricants • **Democratic Republic of the Congo** – Retail, Lubricants • **Ethiopia** – Lubricants • **Gabon** – Retail, Lubricants
- **Ghana** – Retail, Lubricants • **Kenya** – Retail, Lubricants • **Lesotho** – Retail, Lubricants
- ****Malawi** – Retail, Lubricants • **Mali** – Lubricants • **Mauritania** – Lubricants
- **Mauritius** – Retail, Lubricants • **Morocco** – Lubricants • ****Mozambique** – Retail, Lubricants • **Namibia** – Retail, Lubricants • **Republic of South Sudan**
- **Republic of Sudan** • ****Reunion** – Retail, Lubricants • ****Rwanda** – Retail, Lubricants • **South Africa** – Refinery, Retail, Lubricants • **Swaziland** – Retail, Lubricants • ****Tanzania** – Retail, Lubricants • **Togo** – Lubricants • **Tunisia** – Lubricants • ****Zambia** – Retail, Lubricants • ****Zimbabwe** – Retail, Lubricants

** Engen Holdings (Pty) Limited entered into a transaction with Vivo Energy plc, which saw Engen's operations now transferred to Vivo Energy.

Project Delivery & Technology
- **Egypt** • **Mauritania** • **Republic of Sudan** • **Republic of South Sudan**

OUR WORKFORCE

Breakdown of talents by region (%)



Total number of talents

48,001	**49,911**

Employment type

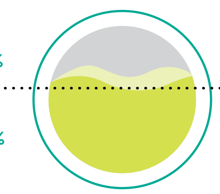
2018		2017
87%	Permanent	85%
13%	Contract	15%

Gender distribution

2018		2017
73%	Male	72%
27%	Female	28%

Breakdown of employees

2018		2017
20%	Other Nationalities	20%
80%	Malaysia	80%



OUR **PROFILE**

OUR **PROFILE**

VISION

A LEADING OIL AND GAS MULTINATIONAL OF CHOICE

MISSION

- We are a business entity
- Oil and gas is our core business
- We add value to this resource
- We contribute to the well-being of society

Petroliam Nasional Berhad (PETRONAS) is Malaysia's national oil and gas company, ranked amongst the largest corporations on Fortune Global 500®.

Since 1974, we have built our capabilities across every stage of the oil and gas value chain. We seek opportunities in hydrocarbon investments across the globe and maximise the value of every molecule through our integrated business model.

Our portfolio includes conventional and unconventional resources and a diverse range of fuel, lubricant, and petrochemical products. This is further strengthened with a successful product delivery track record.

Our customers are at the heart of everything that we do and our businesses are anchored on meeting their needs.

Our technology is our differentiator and the key to ensuring excellence in all that we offer – energy, products and solutions, as well as unlocking new opportunities.

Sustainability is at the core of everything that we do, as we believe in harnessing the good in energy to add quality to everyday lives.

People are our strength and partners for growth.

SHARED VALUES

Loyalty	Integrity	Professionalism	Cohesiveness
Loyal to corporation	Honest and upright	Strive for excellence	United, trust and respect for each other

OUR **PROFILE**

UPSTREAM

A fully integrated business covering a broad portfolio of resources and play types in more than **20 countries**

MAXIMISING RESOURCES FOR GROWTH

PETRONAS' Upstream business, which encompasses Exploration, Development and Production, LNG Assets, LNG Marketing and Trading, and Malaysia Petroleum Management (MPM), is a fully integrated business covering a broad portfolio of resources and play types in more than 20 countries.

Our proven capability and track record of successful onshore and offshore developments in oil and gas have earned us reputable operatorship in many ventures across the world.

Our Upstream presence extends across more than 20 countries globally, with 233 producing fields, 419 offshore platforms, and 29 floating facilities. We also promote sustainable and orderly development of Malaysia's petroleum resources through 158 active Petroleum Arrangement Contracts.

We hold custodianship of Malaysia's petroleum resources. Through our established ventures in Malaysia and internationally, we deliver resource addition from proven basins and maximise value. We strengthen value-driven partnerships in focused geographies through exploration discoveries and discovered resource opportunities. We explore basins with high material oil potential and are developing a portfolio of high-value shale plays which will continue to grow. We provide flexibility and solutions across the entire LNG value chain.

Our fiscally disciplined, balanced, integrated and growth-focused strategy will enable us to continue delivering energy sustainably and value to our clients and stakeholders in the years to come.

OUR **PROFILE**

EXPLORATION

Exploration is the growth engine for PETRONAS, comprising a consolidation of exploration functions from Upstream Malaysia, Upstream International, and Malaysia Petroleum Management (MPM), which explores, acquires, extracts and delivers new resources to sustain long-term production. Core activities include block acquisitions, basin evaluations, play generation, prospect maturation, and exploration drilling. An Exploration Centre of Excellence (CoE) delivers new resource addition by providing the pipeline for hydrocarbon reserves to be developed, leading to sustained and long-term hydrocarbon production. The CoE comprises Basin and Petroleum System Analysis, Geology Solutions, Reservoir Geoscience, and Geophysics Solutions.

DEVELOPMENT AND PRODUCTION

Development and Production (D&P) comprises a consolidation of development and production functions for Malaysia Assets, International Assets, and the CoE, which provides value-driven, world-class operational delivery, with utmost priority on Health, Safety, Security and Environment (HSSE) and Asset Integrity.

The D&P CoE which comprises Petroleum Engineering, Wells, Operational Excellence, Unconventional, Petroleum Economics and Global Planning and Capability collectively provide value-driven technical and commercial solutions, in collaboration with the Exploration CoE and Project Delivery and Technology (PD&T) teams to support business growth.

LNG ASSETS

PETRONAS has successfully commissioned the world's first coal bed methane-to-LNG project in Gladstone, Australia; Train 9 at the PETRONAS LNG Complex in Bintulu, Sarawak; and the PETRONAS Floating LNG Satu (PFLNG Satu). The completion and

commissioning of the PFLNG Satu, the first of its kind in the world, positions us to be at the forefront of technology and innovation in carrying out our strategies to monetise gas. A portfolio of inventive technology and engineering solutions complement our existing capabilities across the integrated gas value chain, providing PETRONAS the competitive edge and flexibility to meet buyers' energy needs.

Meanwhile, end-to-end capabilities across the integrated gas value chain have allowed PETRONAS to become one of the world's leading global LNG players and most reliable LNG suppliers, with a total LNG production capacity of 34.7 mtpa (equity for Egypt LNG and Gladstone LNG). We have successfully delivered more than 10,000 LNG cargoes to buyers across the globe for more than three decades.

The PETRONAS LNG Complex in Bintulu, Sarawak, is one of the world's largest LNG production facilities at a single location, with a current total of nine production trains and a combined capacity of 29.3 mtpa.

MALAYSIA PETROLEUM MANAGEMENT

PETRONAS' successes in our upstream efforts in Malaysia are realised through efficient, profitable and value maximising partnerships with oil and gas majors and international and domestic service providers.

Malaysia Petroleum Management (MPM) has the responsibility of developing a competitive and conducive investment environment for our operators by offering robust fiscal terms. MPM also plays the role of an enabler, working with operators in petroleum activities across the value chain and throughout the entire asset life. This collaboration and partnership have led to the successful development of Malaysia's oil and gas industry, enabling further growth in mature basins to support the maximisation of Malaysia's resource recovery.

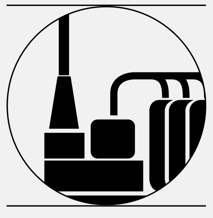
LNG MARKETING & TRADING

Our LNG capabilities capture the best value across the LNG value chain by offering the most competitive value propositions to PETRONAS' LNG customers.

Our total LNG solutions allow us to deliver abundant gas resources in a way that is reliable, flexible, sustainable, and affordable. This enables us to deliver the energy to meet the needs of emerging markets whilst driving towards a low-carbon future.

Operating in a manner that is commercially, environmentally, and socially sustainable, PETRONAS strives to invest and build capabilities in communities where we operate. This commitment drives us to innovate and consistently deliver value to our partners, stakeholders, and investors in our Upstream business.

DOWNSTREAM



We are recognised as a significant industry player with competitive products, offerings, and solutions delivered to customers with **consistent quality and reliability**

Downstream business comprises multiple businesses and plays a strategic role in enhancing value to molecules through an integrated operation, on the foundation of operational and commercial excellence. The diverse activities include refining, trading, and marketing crude oil and petroleum products as well as manufacturing and marketing petrochemical products for local and international consumption.

Across the diverse value chain, the challenge for Downstream remains the managing of margins. PETRONAS is a high-performing business backed by world-class operations, infrastructure, and manufacturing facilities. We are recognised as a significant industry player with competitive products, offerings, and solutions delivered to customers with consistent quality and reliability. As such, our operating model is designed to enhance market competitiveness, mitigate external and internal challenges as well as maximise future growth potential.

OUR **PROFILE**

PRODUCTION CAPACITY AND GROWTH PROJECTS

Currently, PETRONAS has more than 500 kbpd of refining capacity (out of which more than 400 kbpd comes from our domestic operations, and the remaining from Durban, South Africa), and 12.8 MTPA of petrochemical production capacity from 30 subsidiaries, joint ventures, and associate companies.

Construction of the Pengerang Integrated Complex (PIC), which is located in Pengerang, Johor, continues to stay on track. As at December 2018, it has achieved 97 per cent completion. PIC also successfully received its first crude oil cargo at the Pengerang Deepwater Terminal 2 (PDT2) in September 2018 and Crude charge-in was on target in October 2018.

PIC has a refining capacity of 300 kbpd of crude to produce various refined petroleum products, strengthening our petrochemical product portfolio in key growth areas of differentiated and specialty chemicals. As one of the largest integrated refinery and petrochemical development in this region, PIC will diversify our feedstock reliability from gas-based to naphtha and expand our portfolio of products to include specialty chemicals.

GAS PROCESSING AND UTILITIES

PETRONAS owns and operates gas infrastructure and utilities, involving gas processing and utilities, as well as gas transmission and regasification. Within Peninsular Malaysia, PETRONAS processes natural gas piped from offshore fields and transports the processed gas via the Peninsular Gas Utilisation (PGU) pipeline network to customers in Malaysia and Singapore. In addition, we supply steam and industrial gases for customers at Kertih Integrated Petrochemical Complex in Terengganu and Gebeng Industrial Area in Pahang.

For more information, visit www.petronas.com.

PETROCHEMICALS

PETRONAS Chemicals Group Berhad (PCG) is the leading petrochemical producer in Malaysia and the largest gas-based chemicals producer in Southeast Asia. PCG is involved primarily in the manufacturing, marketing, and sales of a diverse range of petrochemical products including olefins, polymers, fertilisers, methanols, and other chemicals and derivative products. Today, our integrated petrochemical complexes in Kertih, Terengganu and Gebeng, Pahang as well as manufacturing complexes in Gurun, Kedah, Bintulu, Sarawak, and Labuan, have a total production capacity of 12.8 MTPA. PCG has marketing subsidiaries in Malaysia, Thailand and China as well as representative offices in Indonesia, Vietnam, and the Philippines. PCG has more than 1,000 active customers around the world, with more than 80 per cent of our business coming from customers who have been with us for more than 10 years.

For more information, please visit www.petronaschemicals.com.my.

PETROCHEMICAL BUSINESS

17 Manufacturing Companies
producing a wide range of chemical products

2 Business Segments
- Olefins and derivatives from 10 plants
- Fertiliser and methanol from 7 plants

2 Integrated Petrochemical Complexes
- Kertih, Terengganu
- Gebeng, Pahang

MARKET LEADERSHIP

Methanol Producer	
LARGEST in the Asia Pacific	**4TH LARGEST** in the world*

Southeast Asia's Leading Chemicals Producer*

2ND LARGEST Urea, Ammonia & BuAC

3RD LARGEST MEG, LDPE & Ethoxylates

LARGEST MTBE, Butanol, BGE & EOA

* by capacity

OUR **PROFILE**

MARKETING AND TRADING

PETRONAS Trading Corporation Sdn Bhd (PETCO), a wholly owned subsidiary of PETRONAS, undertakes marketing and trading activities for crude oil and petroleum products including PETRONAS' Equity Crude where we are present in development and production activities.

PETRONAS Dagangan Berhad (PDB) manages all domestic marketing and retailing activities for a wide range of petroleum products in Malaysia, whilst Engen Petroleum Limited is responsible for overseeing our retail operations in South Africa and sub-Saharan Africa.

For more information, please visit www.mymesra.com.my and www.engen.co.za.

PRODUCT RANGE

Fuel

Domestic

NEW PETRONAS PRIMAX 95 with Pro-Drive

PETRONAS PRIMAX 97

PETRONAS DYNAMIC DIESEL EURO 5 with Pro-Drive

PETRONAS DYNAMIC DIESEL

NGV

International

ENGEN PRIMAX Unleaded

ENGEN DYNAMIC Diesel

Non-Fuel

Domestic

Mesra

MORNINGS @ Mesra

Mesra BITES

International

Quick SHOP

Cards

Domestic

LPG

Domestic

GAS PETRONAS

OUR **PROFILE**

PETRONAS Lubricants International Sdn Bhd (PLI) is the global lubricant manufacturing and marketing arm of PETRONAS. Established in 2008, PLI manufactures and markets a full range of high-quality automotive and industrial lubricant products in over 90 markets globally. Headquartered in Kuala Lumpur, Malaysia, PLI has over 30 marketing offices in 27 countries, managed through regional offices in Kuala Lumpur, Turin, Italy, Belo Horizonte, Brazil, Chicago, USA and Durban, South Africa. Currently ranked amongst the world's top 10 lubricant players, PLI is driving an aggressive business growth agenda to secure our position as a leading global lubricant company.

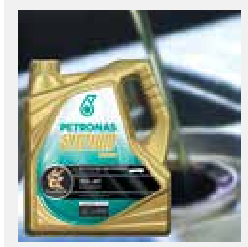
PETRONAS has been the Title Sponsor of the Mercedes-AMG PETRONAS Motorsport team for the past nine years. Since then, we have also played a crucial role as a Technical Partner, working closely with the team to continuously improve on the Winning Formula and deliver the ultimate performance on and off the race tracks. Our Fluid Technology Solutions™ - fuels, lubricants and functional fluids were developed alongside the team's engines, and powered the Silver Arrows to win five consecutive World Constructors' Championships from 2014 - 2018.

SUSTAINABILITY FOR THE FUTURE

At PETRONAS we take a holistic approach in managing our business, focusing on operational strategy, HSSE excellence and sustainability. Our focus is to add value to the resources and generate social, economic and environmental impact to the surrounding community where we operate.

PETRONAS will continue to sustain our world-class operational excellence and competitive marketing capabilities to capture opportunities domestically, as well as in key growth markets globally.

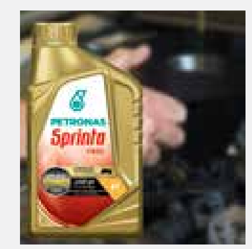
PRODUCT RANGE



Passenger Car Motor Oil

PETRONAS SYNTIUM

PETRONAS SELENIA



Motorcycle Oil

PETRONAS Sprinta

Agriculture

PETRONAS Akros

PETRONAS Arbor

Ancillary

PETRONAS Tutela

PETRONAS Paraflu

Commercial Vehicle

PETRONAS Urania

PETRONAS Urania

BASE OIL

ETRO+

Group II	Group III	
M500	ETRO 4	ETRO 4+
ETRO 3	ETRO 6	ETRO 6+
	MG3D90	

INDUSTRIAL & MARINE

Product Categories

Hydraulic, Gear, Grease, Compressor, Turbine, Metalworking Fluid, Transformer, Specialty, Marine Engine Oil

PROJECT DELIVERY AND TECHNOLOGY

PD&T is established to drive **PETRONAS' growth and future positioning strategies**

PETRONAS continues to redefine the future of energy with innovative approaches to project, technology, and engineering to deliver sustainable energy for tomorrow. Project Delivery and Technology (PD&T), a Centre of Excellence (CoE) with distinctive expertise, leading practices and innovative solutions, as well as robust systems and processes, is strategically positioned to drive PETRONAS' growth and future positioning strategies.

PETRONAS leverages the synergy between Engineering, Procurement, Projects and Technology portfolios to deliver top-quartile projects and assets with technology as a differentiator. The merging of multi-disciplinary engineering experts under one roof streamlines design and technical standards for projects, and allows efficient problem solving for smoother operations. In ensuring Procurement excellence, we leverage digitalisation to enhance value creation by adopting innovative solutions which streamline procurement activities across PETRONAS.

Research and development efforts are also strategically positioned through streamlined activities by our in-house researchers and engineering experts to ensure our competitive advantage well into the future.

PD&T is also the custodian for technical data, performing analytics and drawing insights aimed to improve operational efficiencies and drive business growth. In technical capability management, PD&T provides a stewardship role in ensuring a technically-competent workforce for PETRONAS.

The integration of these portfolios under PD&T allows PETRONAS to have a better oversight and control over the end-to-end value chain of these functions. Consequently, this paves the way for us to create better synergy and collaboration across the value chain.

ENGINEERING AND OPTIMISATION EXCELLENCE

Our experts provide engineering consultation and deliver solutions to steer capital project delivery, technology deployment, procurement management development, as well as enhance asset integrity, reliability and optimisation to achieve operational excellence for top-quartile asset performance. PD&T also provides stewardship on technical standards and solutions by upholding technical governance.

PROCUREMENT AND CONTRACTING EXCELLENCE

PD&T plays a critical role in driving excellence in our procurement and contracting activities. The consolidation of all our procurement functions including planning, governance and services allows us to reap maximum value for the businesses. Having this single line of sight and control across the organisation enables better project delivery, procurement activities and commercially savvy solutions.

PROJECT DELIVERY EXCELLENCE

PD&T aims to deliver projects with world-class performance and top-quartile results for PETRONAS' capital projects and attain project delivery excellence, on time, on budget and on scope. Our predictive and rigorous project control solutions ensure efficient and effective implementation of project management standards, solutions and delivery.

TECHNOLOGY DELIVERY EXCELLENCE

PETRONAS sees technology as key in unlocking new opportunities to amplify value and drive growth for our business. Our technology delivery is anchored on our technology agenda to drive better synergy and bring greater value for the business. PD&T drives this agenda by ensuring a robust technology portfolio management, technology delivery, and commercialisation. Having this central advocacy and oversight role allows PD&T to steer PETRONAS' technology agenda in delivering differentiated value from technology whilst safeguarding our Intellectual Properties.

PETRONAS GROUP OF **COMPANIES**

PETRONAS GROUP OF **COMPANIES**

WHOLLY OWNED SUBSIDIARIES

PETRONAS Carigali Sdn Bhd (100%)
- **PETRONAS Carigali Overseas Sdn Bhd**
  - PC Algeria Ltd
  - PC Randugunting Ltd
  - PETRONAS Carigali (Ketapang) Ltd
    - PC Ketapang II Ltd
  - PETRONAS Carigali Mozambique E & P Ltd
  - PETRONAS Carigali (Surumana) Ltd
  - PETRONAS Carigali White Nile (5B) Ltd
  - PC Lampung II Ltd
  - PETRONAS Carigali (Australia) Pty Ltd
  - PC Mozambique (Rovuma Basin) Ltd
- PC JDA Limited
- E&P Venture Solutions Co. Sdn Bhd
  - E&P O&M Services Sdn Bhd
- E&P Malaysia Venture Sdn Bhd
- Vestigo Petroleum Sdn Bhd (100%)

KLCC (Holdings) Sdn Bhd (100%)

PETRONAS Assets Sdn Bhd
- Petrofibre Network (M) Sdn Bhd
- PETRONAS ICT Sdn Bhd
- Virtus IP Sdn Bhd

PETRONAS Hartabina Sdn Bhd
- PRBF Holdings Corporation Sdn Bhd
  - PRBF Properties Sdn Bhd

PETRONAS Trading Corporation Sdn Bhd
- PETCO Trading (UK) Limited
- PETCO Trading Labuan Company Ltd
- PETCO Trading DMCC
- P.T. PETRONAS Niaga Indonesia

PETRONAS Technical Services Sdn Bhd
- PTSSB DMCC
- PETRONAS Technology Ventures Sdn Bhd
  - PTV International Ventures Ltd
    - PTV International Ventures Americas, Inc.
- PETRONAS Global Technical Solutions Sdn Bhd

OGP Technical Services Sdn Bhd

PARTLY OWNED SUBSIDIARIES

MISC Berhad (62.67%)

Malaysia LNG Sdn Bhd (90%)

Malaysia LNG Dua Sdn Bhd (80%)

Malaysia LNG Tiga Sdn Bhd (60%)

PETRONAS Gas Berhad (60.66%)
- Regas Terminal (Sg. Udang) Sdn Bhd (100%)
- Regas Terminal (Lahad Datu) Sdn Bhd (100%)
- Regas Terminal (Pengerang) Sdn Bhd (100%)
- Kimanis Power Sdn Bhd (60%)
- Kimanis O&M Sdn Bhd (60%)
- Pengerang LNG (Two) Sdn Bhd (65%)
- Pengerang Gas Solutions Sdn Bhd (51%)

PETRONAS Dagangan Berhad (69.88%)
- PETRONAS Lubricants Marketing (Malaysia) Sdn Bhd (100%)
- Setel Ventures Sdn Bhd (100%)
- PETRONAS Aviation Sdn Bhd (100%)
- PDB (Netherlands) B.V. (100%)
  - PETRONAS International Marketing (Thailand) Co. Ltd (100%)
- Kuala Lumpur Aviation Fuelling System Sdn Bhd (65%)

KLCC Property Holdings Berhad (75.46%) ## (held via KLCC (Holdings) Sdn Bhd)

ASSOCIATE COMPANIES

Of PETRONAS Carigali Sdn Bhd:
- Kebabangan Petroleum Operating Co. Sdn Bhd (40%)
- PCPP Operating Company Sdn Bhd (40%)

Of MISC Berhad:
- # Bintulu Port Holdings Berhad (28.52%)

Of PETRONAS Gas Berhad:
- Industrial Gases Solutions Sdn Bhd (50%)
- Trans Thai-Malaysia (Thailand) Ltd (50%)
  - TTM Sukuk Berhad (100%)
- Trans Thai-Malaysia (Malaysia) Sdn Bhd (50%)

Of PETRONAS Dagangan Berhad:
- IOT Management Sdn Bhd (20%)
- Tanjung Manis Oil Terminal Management Sdn Bhd (20%)
- PS Pipeline Sendirian Berhad (50%)
- PS Terminal Sendirian Berhad (50%)

Of PETRONAS Aviation Sdn Bhd:
- United Fuel Company LLC (40%)

Of PC JDA Limited:
- Carigali Hess Operating Co. Sdn Bhd (50%)
- Carigali-PTTEPI Operating Co. Sdn Bhd (50%)

Of E&P Venture Solutions Co. Sdn Bhd:
- BC Petroleum Sdn Bhd (20%)

Of Vestigo Petroleum Sdn Bhd:
- Ophir Production Sdn Bhd (20%)

Note: Disclosure of PETRONAS Group of companies does not include list of subsidiary and associate companies under KLCC (Holdings) Sdn Bhd, MISC Berhad and Engen Limited. The disclosure of companies is up to the 4th tier of active companies. The information provided is accurate as at 31 March 2019.

Listed on Bursa Malaysia

Equity Interest held directly and indirectly by PETRONAS

PETRONAS GROUP OF **COMPANIES**

PETRONAS GROUP OF **COMPANIES**

WHOLLY OWNED SUBSIDIARIES

- **PETRONAS International Corporation Ltd (100%)**
  - **Sirri International Ltd**
  - **PETRONAS Carigali Myanmar Inc. (100%)**
  - **PETRONAS Carigali (Turkmenistan) Sdn Bhd (100%)**
  - **MITCO Labuan Company Limited (MLCL) (100%)**
    - PCM Chemical India Private Limited (PCMCIPL) *
  - **PETRONAS Carigali Nile Ltd (100%)**
  - **PICL (Egypt) Corporation Ltd**
    - WDDM Energy Ltd
  - **Nada Properties Co. Ltd**
  - **PC Madura Ltd**
  - **PC Muriah Ltd**
  - **PC (Myanmar) Holdings Limited**
    - PC Myanmar (Hong Kong) Limited
  - **PETRONAS Carigali Myanmar III Inc. (100%)**
  - **PETRONAS Carigali (Jabung) Ltd (100%)**
  - **PICL Marketing Thailand Ltd**
  - **Myanmar PETRONAS Trading Co. Ltd**
  - **PETRONAS (Thailand) Co. Ltd**
  - **PC Vietnam Limited (100%)**
  - **PC Mauritania I Pty Ltd**
  - **PC Mauritania II B.V**
  - **PETRONAS Philippines Inc**
  - **Parsi International Ltd**
  - **Argentinean Pipeline Holding Company S.A**
  - **PETRONAS Australia Pty Ltd (PAPL)**
    - PAPL Services Pty Ltd
    - PAPL (Upstream) Pty Ltd
    - PAPL (Upstream II) Pty Ltd
    - PAPL (Downstream) Pty Ltd
  - **PETRONAS (E&P) Overseas Ventures Sdn Bhd (PEPOV)**
    - PETRONAS Iraq Garraf Ltd (100%)
    - Natuna 1 B.V.
    - PETRONAS Carigali Canada B.V. (PCCBV) (100%)
      - PETRONAS E&P Argentina S.A. (PEPASA) **
      - Progress Resources USA Ltd.
      - PETRONAS Energy Canada Ltd (100%) *(formerly known as Progress Energy Canada Ltd)*
      - PETRONAS Canada LNG Ltd
    - PETRONAS Carigali International E&P B.V. (100%) (PCIEPBV) ***
      - PETRONAS Suriname E&P B.V.
      - PC Gabon Upstream S.A. (100%)
    - PC Carigali Mexico Oil and Gas Holding S.A. de C.V. (PCCMOGH) ****
    - PETRONAS Carigali Iraq Holding B.V. (100%)
      - PETRONAS Carigali Iraq (Majnoon) Ltd
      - PETRONAS Carigali (Halfaya) Ltd
      - PETRONAS Carigali (Badra) Ltd
    - PETRONAS Brasil E&P Limitada (99%, 1% PGOSB)
    - PETRONAS Angola E & P Ltd (100%)
    - Garraf Technical Services Ltd *(formerly known as PETRONAS China Energy Ltd)*
    - PETRONAS Azerbaijan Upstream Sdn Bhd
      - PETRONAS South Caucasus S.a.r.l.
      - PETRONAS Azerbaijan (Shah Deniz) S.a.r.l. (100%)
    - PC Kualakurun Ltd
    - PC North Madura II Ltd
    - PETRONAS Carigali Chad Exploration & Production Inc
      - PETRONAS Carigali (Chad EP) Inc
      - Doba Pipeline Investment Inc
      - PETRONAS Chad Marketing Inc
    - PC Senegal Ltd *(formerly known as PC Sakakemang Ltd)*
    - Petroliam Manpower Services Mexico S.A. de C.V, (PMSM) ******
    - PC Sakakemang B.V.
    - PC Gambia Ltd
    - PETRONAS Petroleo Brasil Limitada (90%) *******
    - PC Oman Ventures Ltd (100%)
    - Petroliam Manpower Support Services Mexico S.A. de C.V. ********
    - PETRONAS Carigali International Sdn Bhd

PARTLY OWNED SUBSIDIARIES

- SUDD Petroleum Operating Co. Ltd (67.875%)
- Pacific Northwest LNG Ltd (62%)

ASSOCIATE COMPANIES

- Transasia Pipeline Company Pty Ltd (35%)
- Petrodar Operating Company Ltd (40%)
- Greater Nile Petroleum Operating Company (30%)
- DAR Petroleum Operating Co. Ltd (40%)
- Greater Pioneer Operating Co. Ltd (30%)
- Egyptian LNG Co. S.A.E (35.5%)
- El Beherah Natural Gas Liquefaction Company S.A.E (35.5%)
- Egyptian Operating Company for Natural Liquefaction Project S.A.E (35.5%)
- Burullus Gas Company S.A.E (25%)
- Idku Natural Gas Liquefaction Company S.A.E (38%)
- Taninthayi Pipeline Co LLC (30%)
- PP Oil & Gas Indonesia Holding Ltd (50%)
  - PP Oil & Gas (Indonesia – Jabung) Ltd (50%)
  - PP (Indonesia Gas Aggregation) Ltd (50%)
- PICL Siri Co. Ltd (49%)
- GLNG Property Pty Ltd (27.5%)
- GLNG Operations Pty Ltd (27.5%)
- Cameroon Oil Transportation S.A. (29.77%)
- Tchad Oil Transportation S.A. (30.16%)

* (99.99% held by MLCL and 0.01% held by PETRONAS Chemical Marketing Sdn Bhd)
** (70% held by PCCBV, 30% held by PCIEPBV)
*** (70% held by PEPOV and 30% held by PEPASA)
**** (99% held by PCIEPBV; 1% held by PCCBV)
***** (99% held by PEPOV, 1% held by PCCBV)
****** (99% held by PEPOV, 1% held by PCIEPBV)
******* (90% PEPOV, 10% PCIEPBV)
******** (99% held by PEPOV, 1% held by PCCBV)

PETRONAS GROUP OF **COMPANIES**

PETRONAS GROUP OF **COMPANIES**

WHOLLY OWNED SUBSIDIARIES | **PARTLY OWNED SUBSIDIARIES** | **ASSOCIATE COMPANIES**

PETRONAS International Corporation Ltd (100%) (Continued)

- **Labuan Energy Corporation Limited**
  - PSE Ireland Limited
    - PSE Kinsale Energy Limited (100%)
      - PSE Seven Heads Limited (100%)
  - LEC Ireland Employment Limited
- **PETRONAS LNG Carriers Ltd**
- **PETRONAS LNG Sdn Bhd**
  - Partly owned subsidiaries: Japan Malaysia LNG Co. Ltd (86%); Dragon LNG Group (50%)
    - Milford Energy Ltd (100%)
    - Dragon LNG Ltd (100%)
  - PETRONAS Energy (India) Private Limited (99%, PETRONAS LNG Ltd 1%)
  - PETRONAS LNG (UK) Ltd
  - PETRONAS LNG Ltd
  - PETRONAS Energy Trading Limited
    - Humbly Grove Energy Limited (100%)
      - Humble Grove Energy Limited (100%)
  - PNW LNG Marketing Sdn Bhd
  - LNG Investments Europe Ltd
- **PETRONAS Carigali Brunei Ltd (100%)**

PETRONAS Lubricants International Sdn Bhd

- **PLI (Netherlands) B.V. (100%)**
  - PLI Italy SPA (100%)
    - Arexons S.p.A. (100%)
    - PETRONAS Lubricants Great Britain Ltd (100%)
    - FL Nominees (100%)
    - PL Russia LLC (90%, PETRONAS Lubricants Belgium N.V. 10%)
    - PETRONAS Lubricants Brazil S.A (99.99%, FL Nominees 0.01%)
    - PETRONAS Lubricants Argentina S.A (7.85%, PETRONAS Lubricants Brasil S.A 92.15%)
    - PLNA Mexico S.R.L (99.99%, Viscocity Oil Company 0.01%)
    - PETRONAS Lubricants Poland Sp z.o.o (100%)
    - PETRONAS Lubricants Belgium N.V (99.99%, FL Nominees 0.01%)
      - PETRONAS Lubricants France S.A.S (100%)
      - PETRONAS Madeni Yaglar Ticaret Sirketi (99.99%, FL Nominees 0.01%)
      - PETRONAS Lubricants Deutschland GmbH (100%)
    - Viscosity Oil Company (100%)
      - PETRONAS Lubricants Spain S.L.U (100%)
- **PETRONAS Base Oil (M) Sdn Bhd (100%)**
- **PETRONAS Lubricants Africa Ltd (100%)**
  - PETRONAS Lubricants (India) Private Limited (90% PETRONAS Lubricants Africa Ltd, 10% PETRONAS Trading Co Ltd)
  - PLAL DMCC (100%)
    - PLAL Egypt LLC (99.7% PLAL DMCC, 0.33% PLI (Netherlands) B.V.)
- **PETRONAS Lubricants China Company Limited (100%)**
  - Associate companies: Guangxi Beihai Yuchai Petronas High Quality Lub Co. Ltd. (50%); Chongqing Chang'an Yuchai Lube Co., Ltd. (100%); Dalian Yuchai PETRONAS High Quality Lube Co., Ltd. (100%)
    - Dalian Woerfu international Trade Co., Ltd (100%)
  - Guangxi Nanning Yuchai Petronas High Quality Lub Co. Ltd. (50%)
    - Guangxi Dongliyuan Technology & Development Co., Ltd (100%)
  - PETRONAS Lubricants (Shandong) Co., Ltd (100%)
  - PETRONAS Marketing (China) Co. Ltd (100%)
- **PT PLI Indonesia (99.8%, PLI Netherland B.V. 0.2%)**
- **PLI Australia Pty. Limited (100%)**
- **PETRONAS International Power Corporation B.V.**

PETRONAS Power Sdn Bhd (100%)

- Partly owned subsidiary: Voltage Renewables Sdn Bhd (70%)
- Associate company: Eastern Sabah Power Consortium Sdn Bhd (30%)
- PETRONAS International Power Corporation (Mauritius) Ltd
  - Associate companies: Pacificlight Power Pte. Ltd (30%)
    - Pacificlight Energy Pte. Ltd (30%)
- Power and Energy Resources Sdn Bhd

PETRONAS Chemicals Group Berhad (64.35%)

- Associate companies: BASF PETRONAS Chemicals Sdn Bhd (40%); Kertih Terminals Sdn Bhd (40%); Idemitsu SM (Malaysia) Sdn Bhd (30%); BP PETRONAS Acetyls Sdn Bhd (30%); Pengerang Petrochemical Company Sdn Bhd (50%) *(formerly known as PRPC Polymers Sdn Bhd)*
- PETRONAS Chemicals Marketing Sdn Bhd (PCM) (100%)
  - PETRONAS Chemicals Marketing (Labuan) Ltd (PCML) (100%)
  - PCM (Thailand) Company Limited (99.98%)*
  - PCM (China) Co. Limited (100%)
  - PT PCM Kimia Indonesia (99.67%)**
- PETRONAS Chemicals Derivatives Sdn Bhd (100%)
- PETRONAS Chemicals Polyethylene Sdn Bhd (100%)
- Vinyl Chloride (Malaysia) Sdn Bhd (100%)
- PETRONAS Chemicals Methanol Sdn Bhd (100%)
- PETRONAS Chemicals Glycols Sdn Bhd (100%)
- PETRONAS Chemicals Ammonia Sdn Bhd (100%)
- Polypropylene Malaysia Sdn Bhd (PMSB) (100%)
- Kertih Port Sdn Bhd (100%)
- PETRONAS Chemicals Fertiliser Kedah Sdn Bhd (100%)
  - Associate company: Malaysia NPK Fertilizer Sdn Bhd (20%)
- PETRONAS Chemicals Fertiliser Sabah Sdn Bhd (100%)
- PETRONAS Chemicals MTBE Sdn Bhd (100%)
- PETRONAS Chemicals Isononanol Sdn Bhd (100%)
- PRPC Elastomers Sdn Bhd (100%)
- PETRONAS Chemicals Aromatics Sdn Bhd (70%)
- PETRONAS Chemicals Olefins Sdn Bhd (100%)
- PETRONAS Chemicals LDPE Sdn Bhd (100%)
- PETRONAS Chemicals Ethylene Sdn Bhd (87.5%)
- Asean Bintulu Fertilizer Sdn Bhd (63.50%)

*** 99.98% PCM, 0.01% PCML, 0.01% PMSB** **** 99.67% PCM, 0.33% PMSB**

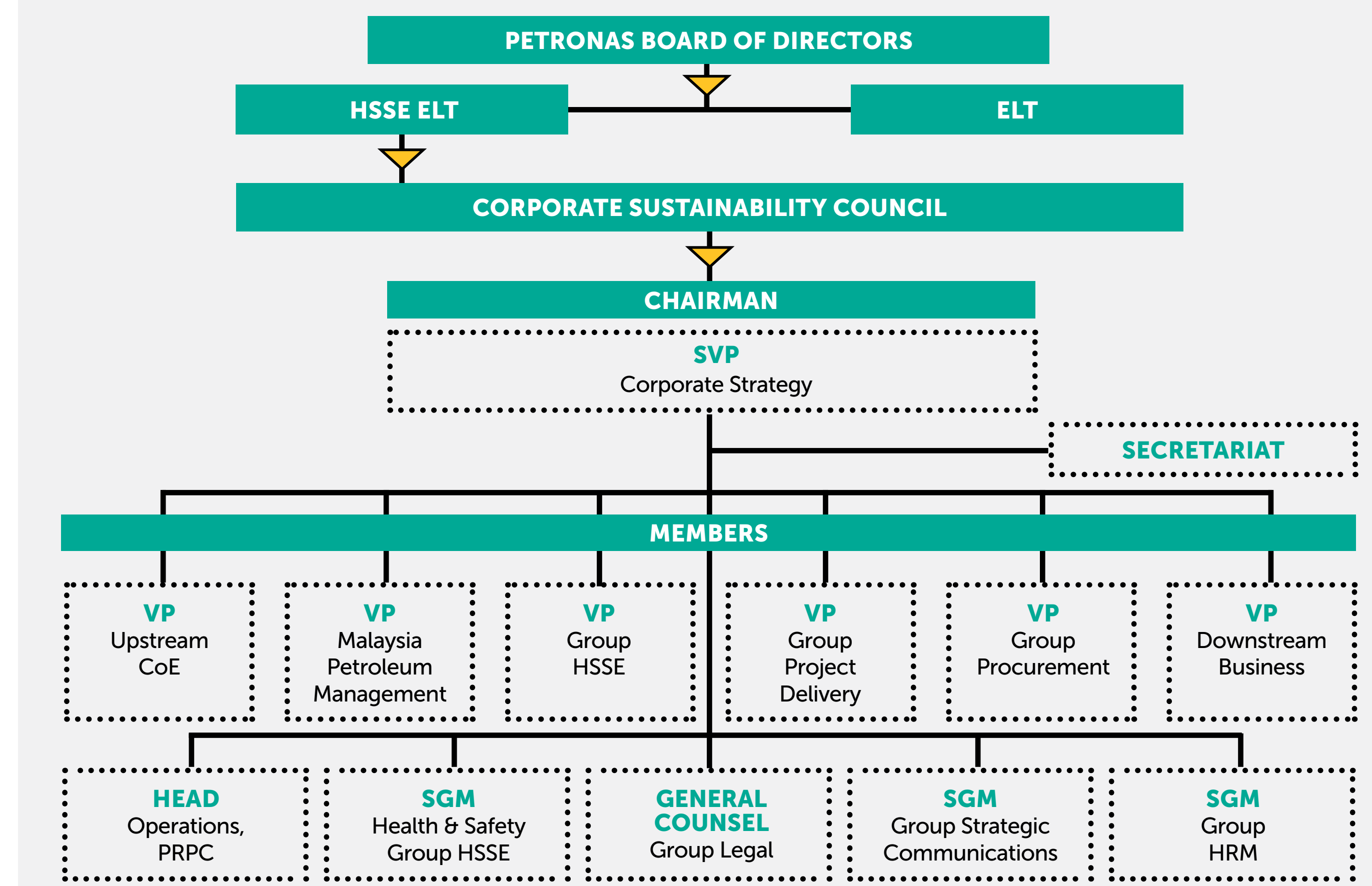
PETRONAS GROUP OF **COMPANIES**

WHOLLY OWNED SUBSIDIARIES	PARTLY OWNED SUBSIDIARIES	ASSOCIATE COMPANIES
PETRONAS Research Sdn Bhd (100%)	IndianOil PETRONAS Private Limited (50%)	
Primesourcing International Sdn Bhd		
Institute of Technology PETRONAS Sdn Bhd (100%)		
└ UTP FutureTech Sdn Bhd		
PETRONAS eLearning Solutions Sdn Bhd		
PETRONAS Penapisan (Terengganu) Sdn Bhd (100%)		
PETRONAS Penapisan (Melaka) Sdn Bhd		
Malaysia Refining Company Sdn Bhd (100%)		
PETRONAS Management Training Sdn Bhd (100%)		
PETROSAINS Sdn Bhd (100%)		
Sanzbury Stead Sdn Bhd		
PETRONAS Capital Limited		
PETRONAS Global Sukuk Limited		
PETRONAS NGV Sdn Bhd		
Energas Insurance (L) Limited		
PETRONAS Technical Training Sdn Bhd (100%)	PETRONAS LNG 9 Sdn Bhd (80%)	
PETRONAS Floating LNG 1 (L) Ltd (100%)		
PETRONAS Floating LNG 2 (L) Ltd (100%)		
PETRONAS Refinery and Petrochemical Corporation Sdn Bhd (100%)		Pengerang Refining Company Sdn Bhd (50%) *(formerly known as PRPC Refinery and Cracker Sdn Bhd)*
└ PRPC Utilities and Facilities Sdn Bhd		Pengerang Terminal (Two) Sdn Bhd (40%)
└ PRPC Water Sdn Bhd (100%)		
└ Pengerang Power Sdn Bhd (100%)		
PETRONAS Marketing International Sdn Bhd	ENGEN Limited (74%)	
PETRONAS Energy & Gas Trading Sdn Bhd		

Listed on Bursa Malaysia
This chart excludes subsidiary companies of MISC Berhad, KLCC (Holdings) Sdn Bhd and Engen Limited.

HOW WE ENGAGE WITH STAKEHOLDERS

Sustainability Governance & How We Engage Stakeholders
The PETRONAS Corporate Sustainability Council (CSC or the Council) is an advisory body that oversees the integration of sustainability practices in the Group, including all Business Units, Operating and Holding Company Units. CSC comprises members of our Senior Management team throughout our integrated business value chain. The Council undertakes quarterly reviews to ensure a fair representation of broader sustainability issues across the Group, as well as initiate assessments on our potential environmental, social and governance (ESG) impacts from specific business activities.



Notes:
ELT - Executive Leadership Team
SVP - Senior Vice President
SGM - Senior General Manager
HSSE - Health, Safety, Security and Environment
CoE - Centre of Excellence
PRPC - PETRONAS Refinery and Petrochemical Corporation Sdn Bhd
HRM - Human Resource Management
Secretariat to the Council is SGM, Environment and Social Performance, Group HSSE

CORPORATE SUSTAINABILITY COUNCIL 2018 HIGHLIGHTS

Towards a low-carbon future
- Establishment of the New Energy Division at PETRONAS.
- Initiated collaboration amongst divisions within PETRONAS, including Technology.

Momentum to enhance management of Human Rights
- Reviewed PETRONAS' Human Rights risk assessment system for compliance and accountability across contractors and suppliers.

Consolidating sustainability at PETRONAS
- Reviewed PETRONAS' sustainability implementation and value impact, including collaboration opportunities within PETRONAS' divisions to strengthen sustainability disclosure to stakeholders and the public.

HOW WE ENGAGE WITH STAKEHOLDERS

Stakeholder Engagement
Forming mutually beneficial partnerships and fostering trust are the cornerstones of the way we do business. The concerns, expectations, and interests of our various stakeholders are gathered through various formal and informal channels and are used to inform our business strategies, objectives, and plans.

Stakeholder engagement is carried out continuously group-wide, ranging from providing timely project insights to sourcing feedback on our growth strategies and providing regular updates on development and sustainability action plans. The frequency of engagements varies, and dialogues are largely led by representatives from multidisciplinary teams. The engagement methods are in line with applicable norms in the countries of operations.

OUR STAKEHOLDERS AND WHY THEY MATTER

Stakeholder	Shared Interest	Why Engagement Matters to Us
BUSINESS PARTNERS, SUPPLIERS AND SERVICE PROVIDERS	Timely updates on operational and business requirements	Collaboratively achieve our growth strategies and objectives
CUSTOMERS AND CONSUMERS	Quality products that are reliable, safe, and efficient	End-users and clients are beneficiaries of our energy products and our state-of-the-art technology
EMPLOYEES AND TRADE UNIONS	Professional and personal growth opportunities in a changing business environment	Our talents are our pillar of success
HOST GOVERNMENTS AND REGULATORY AUTHORITIES	Conformance to laws and regulations, as well as spurring local socio-economic growth	Contribute as a partner in Nation-building and facilitate effective dialogue in the formulation and implementation of policies
INDUSTRY ASSOCIATIONS AND NON-GOVERNMENTAL ORGANISATIONS	Leveraging shared resources and expertise	Collaboratively elevate the standards of the oil and gas industry
LOCAL COMMUNITIES	Opportunities to improve social mobility and livelihoods	The global community are endorsers of our social license to operate
MEDIA	Access to timely, reliable and transparent information	Provide a fair and balanced view of the organisation
HOST GOVERNMENTS AND REGULATORY AUTHORITIES	Insights on our financial and non-financial performance	Provide clear and concise business and sustainability updates to capital contributors, as a way to drive our growth strategies

Stakeholder Inclusiveness
The progress of our business depends on the support of our stakeholders. It is a business prerequisite to understand and be responsive to stakeholders' needs and interests. It is how we can create and enhance the value we deliver in a meaningful way.

Our goal is to nurture relationships that are built on respect and trust. Understanding the concerns and perspectives of stakeholders helps us make more informed decisions that consider a diverse range of views.

SECTION 2

BUSINESS CONTEXT

Here, we share PETRONAS' aspirations to become a leading force in sustainable energy and solutions through continuous efforts in innovation and digitalisation.

LETTER FROM **THE CHAIRMAN**

DEAR STAKEHOLDERS,

DATUK AHMAD NIZAM SALLEH

Chairman

I am honoured and privileged to deliver this annual statement, my first, as the Chairman of PETRONAS. I am humbled by this appointment and I would like to thank Yang Amat Berhormat Tun Dr Mahathir Mohamad, Prime Minister of Malaysia, for the trust bestowed upon me. I sincerely look forward to working with the Board towards delivering long-term sustainable value for the Group.

A CHALLENGING, YET REWARDING YEAR

2018 was a year of mixed fortunes for the oil and gas industry. For most part of the year, the price of Brent has been in an upward trajectory – touching a high of US$86 a barrel in early October 2018, before sliding down to US$54 a barrel towards the end of the year, over fears of supply glut amid a weakening global economic growth.

"I am honoured to share my first letter to stakeholders as the Chairman of PETRONAS."

Despite the challenging external environment, PETRONAS delivered a commendable performance, chalking a 12 per cent year-on-year increase in revenue to RM251.0 billion, while Net Profit rose by 22 per cent to RM55.3 billion during the same period. The commendable financial performance is attributed to the sound strategies put in place since 2018, driven by our three-pronged strategy of 'Maximising Cash Generators', 'Expanding Core Business', and 'Stepping Out'.

I am pleased to inform that this financial performance has enabled PETRONAS to return RM57.8 billion in the form of dividend, taxes, cash payments, and export duty to the Federal and State Governments of Malaysia.

REINFORCING SHARED VALUES AND GOVERNANCE

One of the key enablers to PETRONAS notable performance is its people – firmly guided by the organisation's Shared Values of Loyalty, Professionalism, Integrity, and Cohesiveness in discharging their responsibility as trustees to the people and the nation. These values have become the soul of this organisation and are instilled in its people the resolve to deliver a superior performance and to leave a legacy for future generations. Our Shared Values has allowed us to establish trust with our stakeholders in the businesses we operate around the world.

In this regard, PETRONAS will continue to exercise 'Zero Tolerance' against any acts of corruption or inappropriate conduct in accordance with the PETRONAS Code of Conduct and Business Ethics. During the year, we have intensified our efforts to educate and create awareness on the perils of corruption, while continuing to enforce the management and protection against ethical violation, as guided by the PETRONAS Anti-Bribery and Corruption Policy and Guidelines. PETRONAS will continue to be supportive and attentive to Government's National Anti-Corruption Plan, and that of our own, to address challenges facing the integrity of our governance.

I would like to take this opportunity to remind myself and members of the PETRONAS family that we hold the nation's hydrocarbon resources in trust and we share the accountability to ensure its well-being, while we harness its potential for the benefit of the people and the nation.

We hold the **nation's hydrocarbon resources in trust** and we share the **accountability** to ensure its well-being

GIVING BACK TO THE COMMUNITY

As a responsible corporate citizen, PETRONAS defines achievement not just within the narrow confines of business growth and returns, but also in how we enrich the lives of the people, wherever we operate.

PETRONAS has embarked on more than 500 Corporate Social Responsibility (CSR) programmes to date. I am most pleased to report that PETRONAS' CSR heritage, built on decades of active volunteerism, philanthropy, and a passion to transform lives, is now coordinated by Yayasan PETRONAS, which was launched on 1 March 2019, by the Deputy Prime Minister of Malaysia, Yang Amat Berhormat Dato' Seri Dr Wan Azizah Wan Ismail.

PETRONAS will carry on our tradition by extending and expanding PETRONAS' efforts beyond what we have achieved over the years – by delivering programmes focusing on three focus areas: Sentuhan Ilmu (Education), Sentuhan Alam (Environment), and Sentuhan Harapan (Community Well-being and Development). Through our work in these three focus areas, we aspire to create an environment 'Where Good Flourishes'.

A project worthy of mention under Sentuhan Alam is our Imbak Canyon Conservation Area, a pristine rainforest rich in biodiversity in the heart of Sabah where we carry out world-class research and conservation work through our Imbak Canyon Studies Centre – in partnership with Yayasan Sabah. We hope we will be able to enhance the gene bank for the conservation and exploration of pharmaceutical and biotechnological applications from plants in this conserved area.

Sentuhan Harapan is a livelihood programme to uplift the standard of living for underprivileged communities. One of the initiatives include a six-month training programme for participants to equip themselves with the necessary knowledge and skills, enabling them to become successful entrepreneurs.

The Sentuhan Ilmu series of programmes aim to improve education outcomes and provide more opportunities for underpriviledged students, particularly in Science Technology Engineering and Mathematics (STEM). Through the Teachers Ambassador Programme, we hope to support their professional development opportunities while offering creative teaching and classroom strategies.

"I would also like to thank the entire PETRONAS family for the hard work, perseverance, commitment and dedication in continuously striving to deliver a sustainable performance for PETRONAS."

STRENGTHENING THE TALENT ECOSYSTEM

PETRONAS has always strived to create the right environment for our talents to thrive and deliver their best. A high-performing, cohesive, and collaborative workplace is founded on equality, integrity, and merit – irrespective of gender, age and nationalities. Our ongoing talent development efforts, among others, focus on dispelling biases at the workplace, while promoting leadership, respect, trust, and honest communication.

PETRONAS has embarked on initiatives towards instituting greater diversity, inclusiveness, and flexibility in the organisation, particularly our push for more women leaders within the Group through the PETRONAS Leading Women Network (PLWN), designed to empower the career growth of our women colleagues especially in the upstream sector.

CHANGES TO THE BOARD

On behalf of the Board, I would like to extend a warm welcome to the new Board members who together with me, joined the Board of PETRONAS in 2018.

These new additions to the Board collectively bring diversity of perspectives, a wealth of commercial experience and governance expertise that will be crucial to PETRONAS' transformative journey going forward.

During the year, my predecessor Tan Sri Mohd Sidek Hassan retired as Chairman after completing his tenure on 30 June 2018. On behalf of the Board, I would like to record my utmost gratitude for Tan Sri Mohd Sidek Hassan and other Board members for their contributions and wish them the best on their retirement and their future endeavours.

APPRECIATION

On behalf of the Board of Directors, I wish to record my heartfelt appreciation to our stakeholders, including our customers and partners for their continued support and trust in PETRONAS.

I would also like to thank the entire PETRONAS family for the hard work, perseverance, commitment and dedication in continuously striving to deliver a sustainable performance for PETRONAS amid a challenging business environment. PETRONAS has already joined the ranks of global companies, and this is the fruit of your efforts. The challenge for us is to continue the momentum and bring PETRONAS to greater heights.

I would also like to take this opportunity to extend my gratitude to the Government of Malaysia, the State Governments and the Governments of PETRONAS' host countries for their support, as well as to the members of the Board of Directors for their wise counsel and guidance.

LETTER FROM THE **PRESIDENT AND GROUP CHIEF EXECUTIVE OFFICER**

Over the last three years, our relentless focus on building a more resilient and prepared organisation, through our three-pronged strategy has paved the way for PETRONAS to pursue our growth agenda that will continue to deliver value over the long run and help future-proof the organisation.

"PETRONAS has delivered a robust performance for 2018. It was a year where we have executed our strategies and delivered excellent results, consistent with priorities outlined under our three-pronged strategy – despite operating in a persistent volatile market."

TAN SRI WAN ZULKIFLEE WAN ARIFFIN

President and Group Chief Executive Officer

ACHIEVED STRONG PERFORMANCE ACROSS THE GROUP

2018 was a year of resolute execution for the Group where we achieved greater tangible results from our ongoing efforts in driving efficiency and enhancing our operational excellence. Over the last three years, our relentless focus on building a more resilient and prepared organisation, through our three-pronged strategy has paved the way for PETRONAS to pursue our growth agenda that will continue to deliver value over the long run and help future-proof the organisation.

Our Group Profit After Tax (PAT) for 2018 increased by 22 per cent to RM55.3 billion compared to RM45.5 billion in 2017. In line with higher Profit Before Tax at RM76.7 billion, our Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) grew by 27 per cent to RM116.5 billion from RM92.0 billion in 2017.

Underscored by prudent financial management and high fiscal discipline, our improved Cash Flows from Operating activities (CFFO) in 2018 grew to RM86.3 billion from RM75.7 billion in the previous year.

PETRONAS closed the Financial Year with total assets of RM636.3 billion, increased by 6 per cent from RM599.8 billion in 2017; while cash and fund investments stood at RM181 billion. Overall, PETRONAS maintained a strong credit rating and a healthy cash flow in 2018. Our sizable cash reserves, a result of sound capital management, allowed us to declare a RM30 billion special dividend to our shareholders, as announced in 2018, which we will distribute in tranches throughout 2019.

Our strong financial position has allowed us to continuously invest and our capital expenditure (CAPEX) for the year totalled RM46.8 billion, mainly attributed to various Upstream projects and our largest domestic investment to date – the Pengerang Integrated Complex (PIC) in Johor, Malaysia.

Throughout the year, PETRONAS continued to stay on course in delivering strong performance for both the Upstream and Downstream businesses. For PETRONAS' Upstream business, we recorded improved operational performance with several discoveries which has strengthened our portfolio growth. Ten exploration discoveries were made with nine of these in Malaysia and one overseas, contributing to an increase in our hydrocarbon resources.

Cash Flows from Operating activities (CFFO) in 2018 **grew** to **RM86.3 billion** from **RM75.7 billion** in the previous year

Financial Year with total assets of **RM636.6 billion**, **increased** by **6 per cent** from **RM599.8 billion** in 2017

For the Downstream business, we sustained commendable operations and delivered a good overall performance in 2018 for our refining and petrochemical plants. On the retail side, PETRONAS Dagangan Berhad (PDB) continued to innovate product offerings to deliver enhanced retail experience for our customers through the utilisation of technology and digitalisation with the launch of its e-payment app, Setel, and its mobile fuel delivery service, ROVR. The PIC project continues to record excellent progress and has achieved 97 per cent as at 31 December 2018 with current progress at 99 per cent as at end of March 2019. Other key highlights will be shared further in the Upstream and Downstream sections of the Annual Report.

Our three-pronged strategy of maximising our cash generators, expanding our core business and stepping out to new energy and specialty chemicals, continues to set the course for PETRONAS and we have made significant headway in carrying out these strategies. Notable milestones include our successful acquisition of a 10 per cent stake in Block 61 of the Khazzan field in Oman as well as the approved Final Investment Decision (FID) for the LNG Canada project in Kitimat, British Columbia with our joint venture partners which would allow us to monetise our world-class shale gas resources in Canada. Progress on the development phase of our shale oil asset in La Amarga Chica, Argentina is also encouraging.

While we forged ahead with our growth strategies, we continue to remain focused on our ongoing transformation initiatives which commenced approximately three years ago. One of these activities, the Cost Reduction Alliance (CORAL 2.0), achieved an overall reported value of RM3.6 billion in 2018, bringing the total since its inception in 2015 to RM15.1 billion. This is a testament to the collaborative synergy between PETRONAS and our industry partners in generating value from various activities to drive down costs and improve productivity.

Internally, our CACTUS Cash initiatives also generated a cumulative RM14.2 billion in savings by end of last year. I am pleased to share that at the end of 2018, both of these initiatives have been concluded and the institutionalised practices will be adopted as part of our business-as-usual arrangements.

HSSE

In 2018, PETRONAS showed a marked improvement in our Health, Safety, Security and Environment (HSSE) performance. A concerted focus was placed on building a generative HSSE culture, one that is built on ownership, mindfulness, and intervention, where everyone contributes towards adopting the right conduct for 'zero tolerance' on worksite incidents.

Whilst clocking a record-breaking 468 million man hours in 2018, we succeeded in reducing our fatality rate, major Loss of Primary Containment (LOPC), and major fire incidents.

However, our work is far from done, as rigorous initiatives on safety compliance and improving HSE competencies are continuously rolled out by the Group HSSE team to reach our 'zero incident' target.

LETTER FROM THE **PRESIDENT AND GROUP CHIEF EXECUTIVE OFFICER**

NURTURING A ROBUST LOCAL OIL & GAS ECOSYSTEM

In our commitment to shape a sustainable oil and gas sector in Malaysia, PETRONAS constantly seeks innovative solutions for the mutual benefit of all parties in the ecosystem – more so in the increasing volatile business environment we operate in. We actively engaged various stakeholders to understand the pain-points of the industry in providing specific and customised solutions. In this regard, PETRONAS has embarked on many industry initiatives to heighten the resilience of our local vendors.

In May 2018, we launched VDPx, an extension of our successful Vendor Development Programme (VDP), which empowers the next tier of VDP contractors to develop their own ecosystem of vendors and suppliers to support the growth of their businesses, as well as the industry. We also published the second edition of our annual PETRONAS Activity Outlook in December 2018, which outlines our activities in the Upstream and Downstream sectors to provide a better line of sight on the emerging project requirements for the period 2019 to 2021. The intent is to guide local Oil & Gas Services and Equipment (OGSE) companies to strategise their resources and investment decisions in line with the industry and market trends.

Realising that access to financing is one of the prominent pain-points of the industry, we reached out to financial institutions and successfully inked a collaboration in July 2018 with Bank Islam and Syarikat Jaminan Pembiayaan Perniagaan, which targeted a financing programme for Small Medium Enterprise (SME) OGSE vendors. Continuing these efforts into 2019, we introduced Program Lestari in January, an initiative targeted to increase the capabilities of Bumiputra vendors and in February we progressed with the launch of our second Vendor Financing Programme for Subcontractors, Mid-tier and Large Companies. Under this initiative, contractors will be able to benefit from the competitive rates and efficient financing processes from five local and international banks.

Moving forward, we remain committed to nurturing the OGSE players and enablers to ensure a thriving local oil and gas industry in Malaysia.

REINFORCING OUR SUSTAINABILITY COMMITMENTS

PETRONAS is committed to reduce our carbon footprint and has introduced our Carbon Commitments targets back in 2012. Greenhouse gas (GHG) emissions reduction target then was 8 million tCO_{2e} to be achieved by 2017, and was focused on reducing flaring and venting, and improvement on energy efficiency.

LETTER FROM THE **PRESIDENT AND GROUP CHIEF EXECUTIVE OFFICER**

The target of 8 million tCO_{2e} reduction was duly achieved in 2017 and PETRONAS continued the momentum. As at the end of 2018, our cumulative reduction stood at 11.61 million tonnes of GHG which translated to 187 mmscfd of sales gas.

To date, PETRONAS has enhanced its Carbon Commitments to include the management of high CO_2 gas fields, and requirements on carbon pricing and carbon offsets in our decision-making, as well as inclusion of renewable energy sources as a new growth segment. Operationally, we continue to strive for zero continuous venting and reduce continuous flaring of our facilities where economically feasible. We target to achieve zero continuous venting and zero continuous flaring by 2024 and 2030 respectively.

In efforts to strengthen our environmental responsibility, PETRONAS is also exploring potential carbon offsets from forest conservation in Malaysia, besides the commitment to reduce flaring and venting, and improve energy efficiency. Advancing operational discipline, capability, and harnessing technological development will be key to PETRONAS in managing our GHG emissions, moving forward.

Further to these initiatives, we continue to contribute to the nation in the areas of education, community well-being and development and environment. Over the years, we have carried out many Corporate Social Responsibility (CSR) programmes and initiatives in these areas. I am proud to note that Yayasan PETRONAS, the philanthropic foundation of our company launched in March 2019, will continue our CSR initiatives across the nation in upholding our 'amanah' to all Malaysians. I am confident that the foundation will shape our community efforts with the aim to contribute to a sustainable ecosystem that meets the current and future needs of societies.

STRATEGIC OUTLOOK IN 2019 AND BEYOND

The strong performance of 2018 was a reflection of the Group's collective efforts in increased operational efficiency and commercial excellence. We also continued to remain steadfast in our fiscal discipline with enhanced operations to deliver commendable results in the year under review.

Looking beyond the horizon, there are many external challenges that require us to remain agile and persevere with our efforts to strengthen the organisation. Changing market dynamics and consumer demands, along with the challenges and disruptions from the energy transition, digital and techonological advancements, are some of the issues that the industry would have to increasingly grapple with.

Therefore, in 2019 and the coming years, we will continue in our relentless pursuit to drive high performance, efficiency and operational excellence in executing our strategies. With a view to leverage global trends and to future-proof the organisation, we will remain focused on our cash generators, expanding our core business portfolio and exploring opportunities in new energy and specialty chemicals.

In addition, to meet the greater expectation that demands a shift towards more sustainable ways of providing cleaner energy to the world beyond profit, I believe that the time is right for PETRONAS to adopt a new Statement of Purpose in place of the Vision and Mission which has served us all these years.

As we move forward, our new Statement of Purpose will reflect the dynamic growth and innovation we are aspiring to, as well as directing us towards new ways of achieving distinctive business outcomes and anticipating the needs of customers. It also signals the expansion of our portfolio beyond traditional oil and gas into the broader energy space. It is with pleasure for me to introduce the new PETRONAS Statement of Purpose:

> 'A progressive energy and solutions partner **enriching lives for a sustainable future**.'

As we embark on this new journey, we will continue to push the boundaries in enhancing our value proposition to responsibly harness the good in energy towards achieving a higher cause. In the pursuit of our progressive aspirations, we will sustain the momentum in the focused execution of our strategies to deliver value to our stakeholders and ensure a better energy future for the generations to come.

ACKNOWLEDGEMENT

The accomplishments of the past year would not have been made possible without the highly competent, passionate and motivated employees of PETRONAS who possess the mindset to diligently pursue high performance and continue to push the envelope. I would like to express my appreciation to the hardworking men and women of PETRONAS for their perseverance and selfless contributions throughout the years.

Let me also extend my gratitude to our Chairman, YBhg Datuk Ahmad Nizam Salleh and all the Members of the PETRONAS Board of Directors for their continued support and stewardship of the company. I would also like to extend my appreciation to all of our business partners, vendors, and stakeholders that have contributed towards our Shared Success.

I look forward to an equally exciting and rewarding year ahead with everyone – as a winning PETRONAS team.

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

YM TENGKU MUHAMMAD TAUFIK TENGKU AZIZ

Executive Vice President and Group Chief Financial Officer

PETRONAS Group concluded 2018 with a strong financial position and healthy liquidity, underpinned by a resilient performance that delivered improved cash flows from operational excellence. The Group continues to be grounded on prudent financial and solid capital management to ensure the implementation of our future growth plans and development strategies remain firmly on track.

PROFIT AFTER TAX
jumped 22 per cent driven by stronger prices and cost optimisation efforts across the Group

RM **55.3** billion in FY2018

REVENUE
increased 12 per cent on the back of higher prices

RM **251.0** billion in FY2018

CASH FLOWS FROM OPERATIONS
grew 14 per cent on the back of improved operational performance

RM **86.3** billion in FY2018

REVIEW OF **2018 FINANCIAL RESULTS**

PETRONAS registered higher revenue at RM251.0 billion for FY2018, representing an increase of 12 per cent compared with the previous year on the back of higher average realised prices for all key products. The higher revenue was partially offset by the unfavourable effects of the strengthening of the Ringgit against the US Dollar exchange rate, and to a lesser extent, lower sales volume.

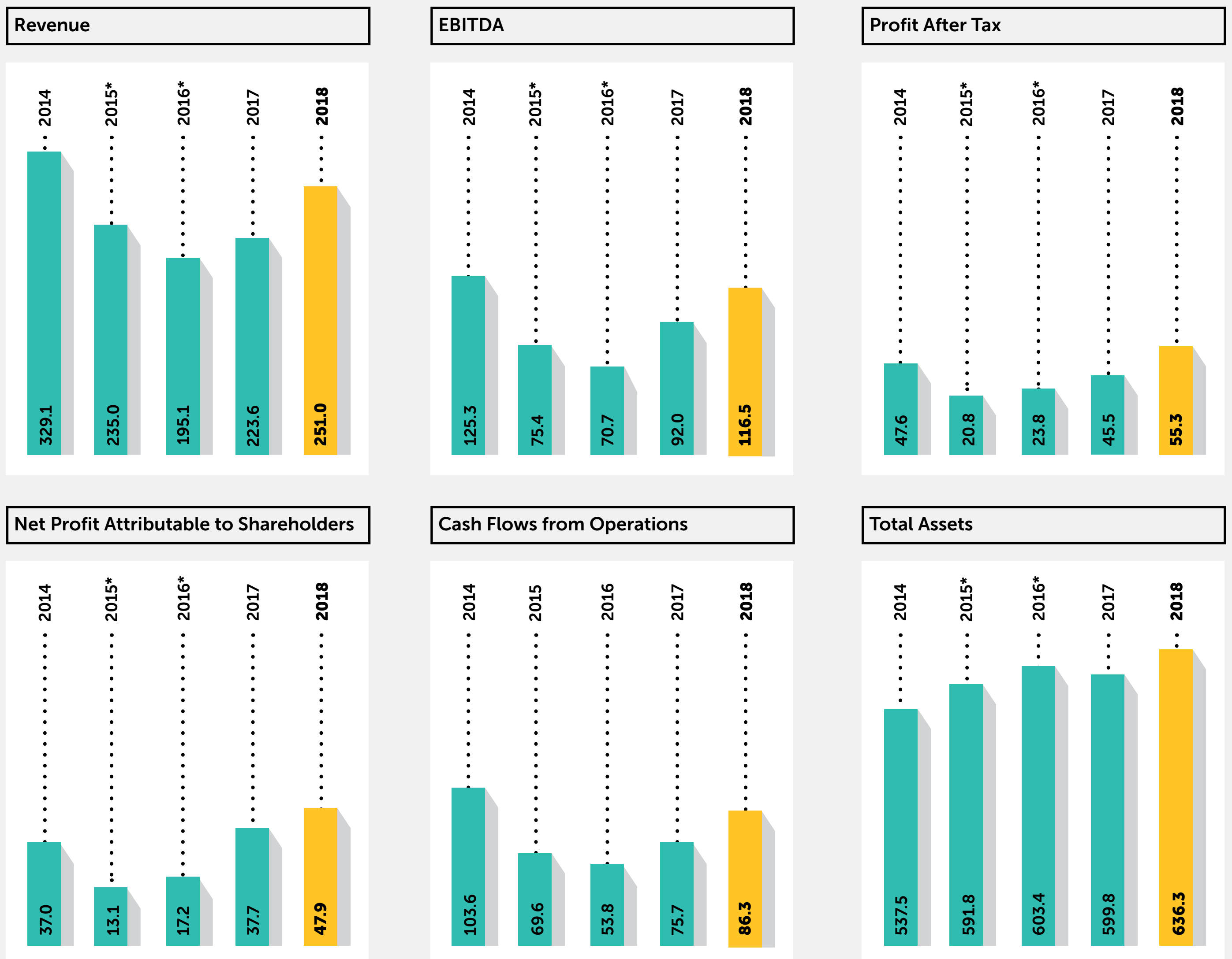
The upward trend of major product prices was largely driven by Dated Brent averaging at USD71/bbl in 2018, compared with USD54/bbl in 2017. Average prices for LNG benchmark – the Japan Customs-Cleared Crude price – also went up from USD51/bbl a year ago to USD68/bbl in 2018.

Total Upstream production in FY2018 was at 2,361 thousand barrels of oil equivalent (boe) per day, a slight increase of two per cent from 2,320 thousand boe per day in 2017, mainly due to higher production from international operations.

In line with higher revenue, Profit After Tax (PAT) grew by 22 per cent to RM55.3 billion, compared with RM45.5 billion a year ago, primarily attributed to better average realised prices for key products, and net impairment write-back due to better Upstream assets performance and outlook. Earnings Before Interest, Tax, Depreciation, and Amortisation (EBITDA) also increased by 27 per cent year-on-year to RM116.5 billion from RM92.0 billion in FY2017, in line with higher Profit Before Tax (PBT).

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

FIVE-YEAR KEY FINANCIAL INDICATORS (RM BILLION)



Financial Ratios	FY2014	FY2015*	FY2016*	FY2017	FY2018
PAT Margin	14.5%	8.8%	12.2%	20.3%	**22.0%**
Return on Total Assets (ROTA)	14.1%	5.8%	5.4%	10.7%	**11.8%**
Return on Average Capital Employed (ROACE)	11.9%	5.1%	5.4%	9.8%	**12.0%**
Debt/Assets Ratio	0.07x	0.10x	0.11x	0.11x	**0.11x**
Gearing Ratio	12.6%	16.0%	17.4%	16.1%	**19.7%**
Dividend Payout Ratio	53.6%	70.2%	>100%	93.0%	**69.0%**

* *Certain financial information and its corresponding financial ratios have been restated due to the change in accounting policies with respect to revenue reporting and inventory valuation for gas trading activities.*

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

PETRONAS' Financial Position **Remained Robust with Healthy Liquidity**

FINANCIAL POSITION AND LIQUIDITY

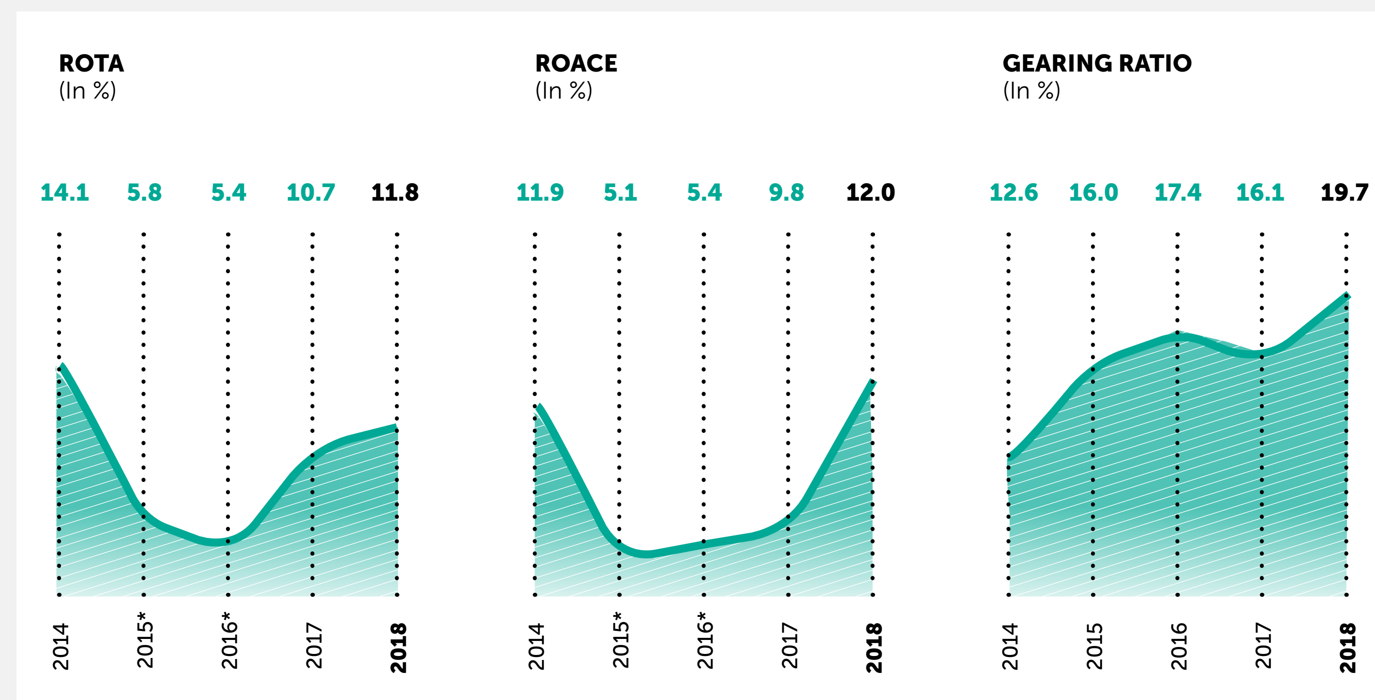
PETRONAS' financial position remained robust, supported by improved liquidity from higher revenue and productivity. Total assets grew by RM36.5 billion or 6 per cent year-on-year to RM636.3 billion as at 31 December 2018, due to increased cash, funds, and other investments. The resilient cash position of the Group continued to afford us the financial flexibility needed to execute our growth and sustainability ambitions.

To further strengthen our integrated business value chain and secure new cash generators, PETRONAS spent RM46.8 billion for capital investments during the year. Out of this amount, 54 per cent was for domestic projects, predominantly in the Pengerang Integrated Complex (PIC) project in Pengerang, Johor. The project's completion remains well on track at 97 per cent, as at 31 December 2018. Capital investments for international ventures were primarily spent on Upstream ventures in Oman and Canada.

The year's stronger financial performance translated into further improvements across two key financial ratios. In particular, the Group's ROTA and ROACE moved up to 11.8 per cent and 12.0 per cent, respectively. This was mainly driven by higher profits generated during the year.

However, our gearing ratio increased to 19.7 per cent, compared with 16.1 per cent registered in 2017, due to additional provision for decommissioning of assets following a necessary revision of estimated abandonment costs for oil and gas properties, as well as lower shareholders' equity.

PETRONAS' credit rating remained stable throughout 2018, supported by our solid liquidity profile. This was attested by our unchanged ratings accorded by all three major rating agencies. PETRONAS retained its A-rating by both Standard and Poor's and Fitch, and continued to be rated A1 by Moody's.



* *The figures have been restated due to the change in accounting policies with respect to revenue reporting and inventory valuation for gas trading activities.*

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

Sound capital and financial management practices are essential to the continued sustainability of the Group.

Capital Management
The Group believes that sound capital and financial management practices are essential to its continued sustainability. Hence, PETRONAS remains committed to a policy of financial prudence, as outlined in the PETRONAS Group Corporate Financial Policy.

The objective of the Group's capital management strategy is to always maintain an optimal capital structure and ensure that at any given time, there is sufficient availability of funds to meet our financial obligations, support business growth, and maximise our shareholders' value. The Group continuously monitors and vigilantly maintains a prudent 'total debt vs total assets' ratio to ensure strict compliance with all financial covenants and internal control measures.

The balance sheet management and financial policy employed by PETRONAS ensured the Group's current and future viability. This is further supplemented by ongoing efforts to achieve the right capital structure, implement prudent risk mitigation measures, optimised assets monetisation, and value accretion through high-performing assets.

There were no changes to the Group's capital and financial management approach during the year.

Managing Risks
Key financial risks which arose in the normal course of conducting business comprised mainly of credit, liquidity and market risks. These are explained further in the Notes to the Financial Statements that accompany this report as part of Note 40 on Financial Instruments.

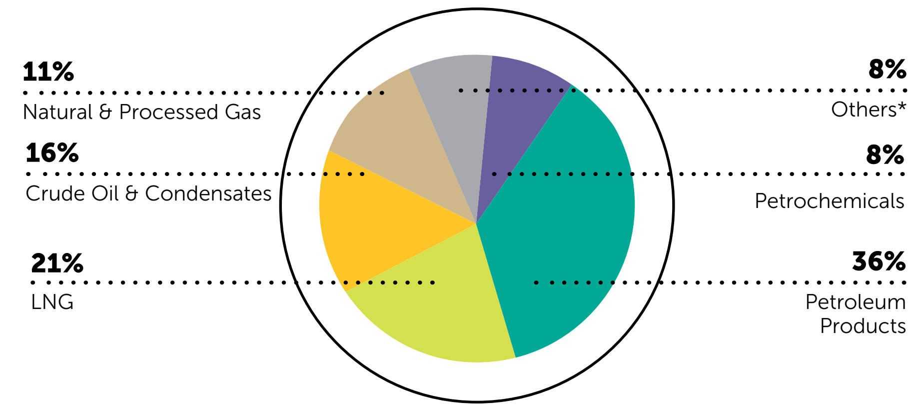
Our approach and strategy in managing material risks are described in greater detail in our Statement on Risk Management and Internal Control, which is available on pages 119 to 128 of this report.

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

REVENUE BY PRODUCTS

(In % of Contribution)

The Group's total income for FY2018 was RM251.0 billion. Petroleum products and LNG accounted for 36 per cent and 21 per cent of revenue, respectively.

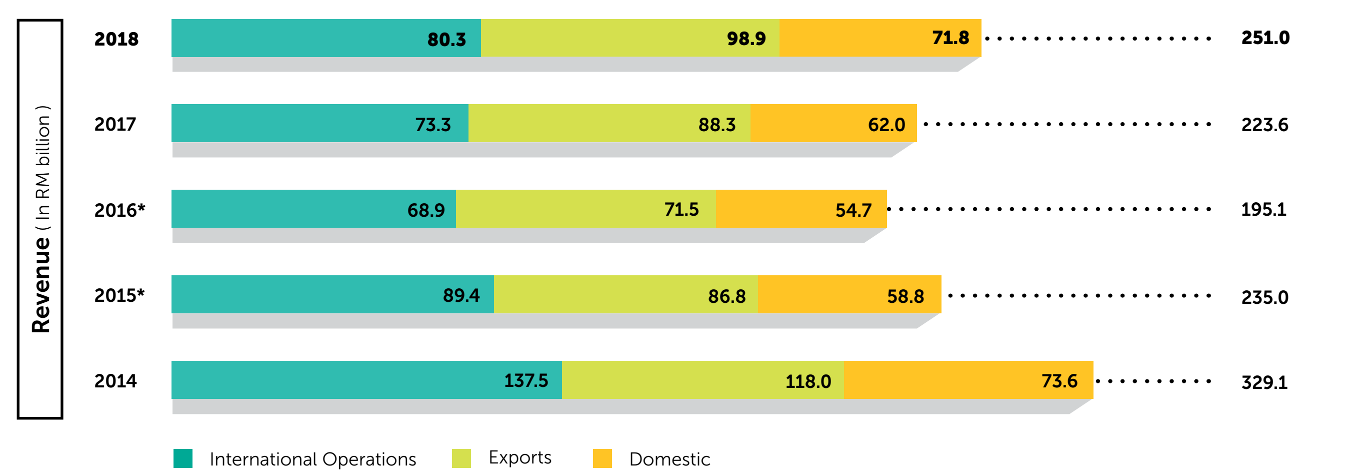


(In RM billion)

	Petroleum Products	LNG	Crude Oil & Condensates	Natural & Processed Gas	Petrochemicals	Others*
Change	▲ 12%	▲ 8%	▲ 21%	▲ 13%	▲ 8%	▲ 11%
FY2017	79.8	49.9	33.3	24.6	17.6	18.4
FY2018	**89.2**	**53.9**	**40.4**	**27.9**	**19.1**	**20.5**

* *Others comprise of 'Property & Others' and 'Maritime & Logistics'.*

REVENUE BY TRADE



* *The figures have been restated due to the change in accounting policies with respect to revenue reporting and inventory valuation for gas trading activities.*

PETRONAS recorded a higher revenue across all categories of our geographical trade in 2018, buoyed by better oil prices in the global markets.

Revenue from exports which stood at RM98.9 billion, remained the largest contributor to the Group's revenue at 39 per cent, and exports revenue was 12 per cent higher than the preceding year. Our international operations accounted for 32 per cent of the Group's total revenue, with a 10 per cent year-on-year increase from FY2017. Revenue from domestic operations also improved by 16 per cent compared with the previous year.

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

REVENUE BY GEOGRAPHICAL SEGMENTS

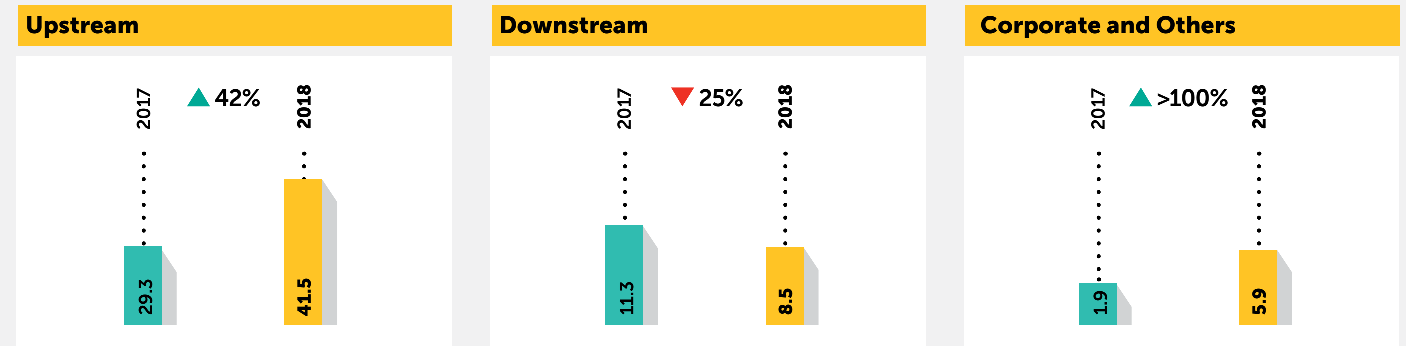
Revenue by geographical segments is based on the geographical location of our customers.

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

SEGMENT EARNINGS

PAT BY BUSINESS SEGMENTS

(In RM billion)



The Group has two core business segments, namely Upstream and Downstream. The other segment, which is Corporate and Others, comprises primarily our logistics and maritime sector, property sector, central treasury, and project delivery and technology function. Upstream, and Corporate and Others both recorded an increase in PAT in 2018.

Upstream

The Upstream business segment continued to be the main contributor to the Group's PAT, representing 75 per cent of the Group's PAT in FY2018. Upstream's PAT improved by 42 per cent from RM29.3 billion in FY2017 to RM41.5 billion in FY2018, on the back of higher revenue and net write-back of impairment on assets. The increase in revenue was attributed to higher benchmark prices, coupled with a two per cent rise in total production.

In 2018, focused execution on growth strategies led to the successful acquisition of Block 61 Oman which contributed to increased production, coupled with higher volume mainly from Turkmenistan. The production increase was partially offset by lower gas production from Malaysia resulting from a Sabah-Sarawak Gas Pipeline (SSGP) incident.

Upstream's continued focus on operational excellence, cost optimisation, as well as monetising maximum value from new and existing fields culminated in an increase in the Upstream's contribution to the Group's bottom line.

Further details on Upstream's operational performance is described in pages 48 to 53.

Downstream

Downstream Business recorded a revenue of RM128.0 billion, 13 per cent higher compared with RM113.6 billion recorded in FY2017. However, PAT stood at RM8.5 billion, 25 per cent lower compared with RM11.3 billion recorded in FY2017, mainly contributed by higher operating costs, and lower refining and marketing margins. Despite these challenges, we persevered in delivering a commendable performance. Overall, the performance in 2018 yielded an Overall Equipment Effectiveness (OEE) of 94.4 per cent, whilst Reliability stood at 97.9 per cent.

Our petrochemicals business also maintained its solid operating performance, registering a high plant utilisation rate of 91.9 per cent, with a record annual production volume of 10.4 million metric tonnes, despite heavy statutory turnarounds during the financial year.

More information on Downstream's operational performance is available on pages 54 to 59.

Corporate and Others

Our Corporate and Others business segment recorded a significant jump in PAT to RM5.9 billion in FY2018, an increase of more than 100 per cent from the previous year's RM1.9 billion. This was mainly due to higher fund investment income registered during the year.

Over and above fund investment income, MISC Berhad (MISC) and KLCC Property Holdings Berhad (KLCCP), are the two major subsidiaries that contributed to this segment PAT.

MISC recorded a PAT of RM1.3 billion, predominantly contributed by LNG and Offshore businesses. PAT during the year also includes share of profit of joint ventures and gains realised from acquisition of businesses.

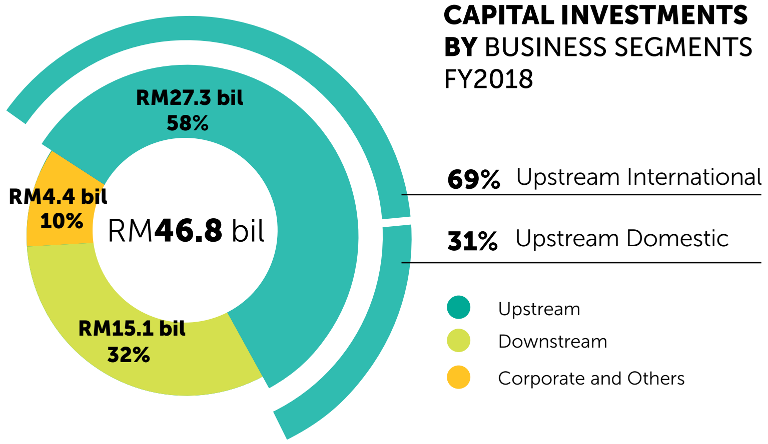
KLCCP recorded a PAT of RM0.8 billion, primarily contributed by property investment income.

A comprehensive account of MISC and KLCCP's operational performance can be found in their Annual Report for 2018.

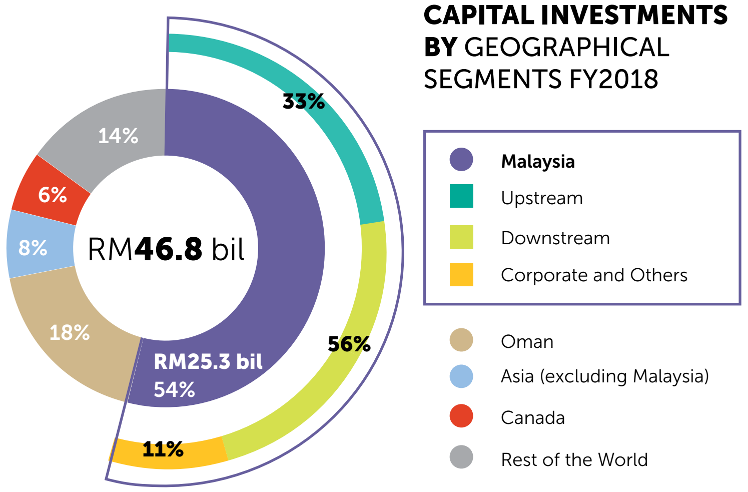
LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

SEGMENT CAPITAL INVESTMENTS

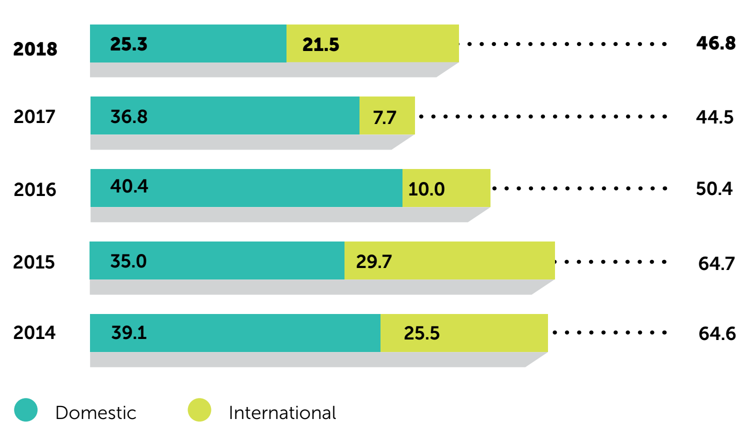
CAPITAL INVESTMENTS BY BUSINESS SEGMENTS FY2018



CAPITAL INVESTMENTS BY GEOGRAPHICAL SEGMENTS FY2018



DOMESTIC AND INTERNATIONAL CAPITAL INVESTMENTS BREAKDOWN
(In RM billion)



Capital investments during the financial year increased by RM2.3 billion or five per cent, to RM46.8 billion, up from RM44.5 billion in FY2017 to support the Group's growth agenda.

Over the medium term, more overseas **CAPEX** will be required to unlock the value of our foreign assets.

Upstream

The Upstream business segment made up 58 per cent or RM27.3 billion of the Group's total capital investments in 2018 to sustain and grow our production volume. A total of RM18.9 billion was allocated towards international portfolio growth investments, notably for asset acquisitions in Oman and Canada. Of the total Upstream capital investments in 2018, domestic investments accounted for 31 per cent. Amongst the key Upstream investment projects in Malaysia were the Baronia Enhanced Oil Recovery (EOR) Project, Balingian and Samarang Asam Paya fields.

Further details on Upstream capital investments can be found on pages 48 to 53.

Downstream

During FY2018, the Downstream business segment accounted for 32 per cent of the Group's total capital investments, with the bulk of the Downstream investments for the year being spent on the PIC project. Completion of PIC remained on track with 97 per cent progress as at 31 December 2018. It is currently in its commissioning stage, preparing towards full operations in the fourth quarter of 2019.

More information on Downstream capital investments can be referred to pages 54 to 59.

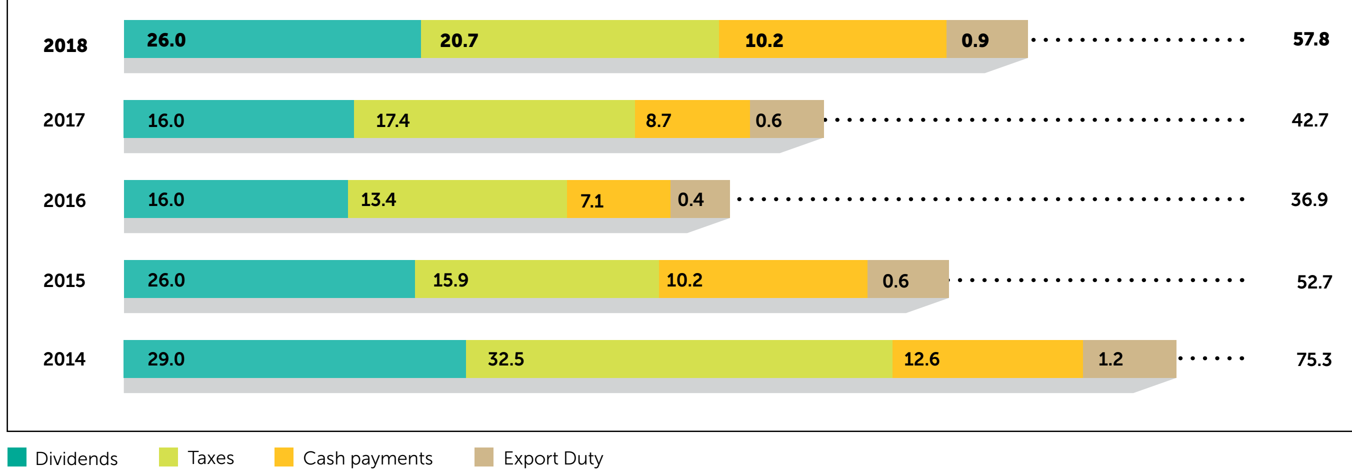
Corporate and Others

Capital investments for our businesses under Corporate and Others amounted to RM4.4 billion in FY2018, of which 86 per cent was attributed to MISC's procurement of five Dynamic Positioning (DP) newbuilds and a crude oil tanker – Floating Storage and Offloading (FSO) Mekar Bergading.

LETTER FROM **THE EXECUTIVE VICE PRESIDENT AND GROUP CHIEF FINANCIAL OFFICER**

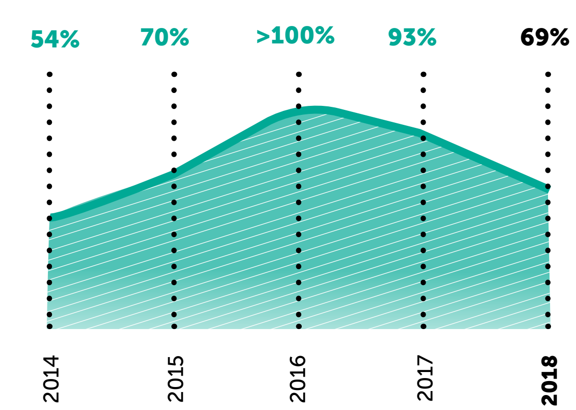
CONTRIBUTION TO FEDERAL AND STATE GOVERNMENTS OF MALAYSIA

COMPONENTS OF CONTRIBUTION
(In RM billion)



PETRONAS' contribution to the Federal and State Governments of Malaysia for the year ended 31 December 2018 amounted to RM57.8 billion, higher by RM15.1 billion compared with FY2017.

DIVIDEND PAYOUT RATIO
(In %)



Dividends paid amounting to RM26.0 billion translated to a dividend payout ratio of 69 per cent of the preceding year's Profit After Tax and Non-Controlling Interests. This sum includes dividends totaling RM16.0 billion in FY2017, as well as interim dividends of RM5.0 billion and special dividends of RM5.0 billion in FY2018.

Revenue Forgone (In RM billion)	FY2018	FY2017	+/-	Cumulative Total Since 1997
Power Sector	3.6	3.6	-	164.1
Non-Power Sector (including industrial, commercial, residential users and NGV)	3.3	2.8	18%	90.6
Total	**6.9**	**6.4**	**8%**	**254.7**

The total revenue forgone reached RM254.7 billion in FY2018 since regulated prices came into effect in May 1997. For FY2018, the revenue forgone in respect of the regulated pricing mechanism imposed on the supply of gas to Peninsular Malaysia's power and non-power sectors was at RM6.9 billion, compared with the previous year. The increase in revenue forgone was attributed to higher contract prices, in line with increase in benchmark prices.

OUTLOOK

The oil and gas industry will continue to operate in a challenging environment arising from market uncertainties and geopolitical risks. Despite these challenges, the Group will continue to focus on upholding its operational excellence and realising growth strategies. The Board expects the Group's financial performance for FY2019 to be affected by the movements in prices.

UPSTREAM

Exploration activities and continuous inventory replenishment is the lifeline of PETRONAS as an integrated global oil and gas player. Upstream business performed well in 2018 on multiple fronts with notable achievements ranging from reserves addition and new discoveries, to increased efficiencies and new contracts signed.

We focused on realising our short-term goals, including harnessing leading technology to further uplift cost efficiency and de-risking our projects; whilst balancing the execution of medium-to-long-term strategies to ensure production sustainability.

Datuk Mohd Anuar Taib

Executive Vice President, and
Chief Executive Officer, Upstream

UPSTREAM

Discovering New Resources and Adding New Reserves

I am pleased to report that Upstream had a strong year in 2018, charting new territories as we matured the fields under development.

To date, PETRONAS Upstream is operating on 233 producing fields, which is inclusive of 175 fields domestically and 58 fields internationally. We are expecting 24 new projects in our exploration, development, and production pipeline, as well as potential discoveries from Malaysia's deepwater fields in Sabah and Sarawak, Egypt, Gabon, Gambia, Mexico, Senegal and Suriname over the next five years.

Through continuous efforts in replenishing our Reserves, overall, we added 2.69 billion boe (Bboe) of Reserves in 2018, mainly contributed by project approval and sanction, better field performance, asset acquisition, and contract extension. Taking into consideration in-year production of 0.62 Bboe, PETRONAS' total Proved and Probable (2P) Reserves improved to 8.34 Bboe as at 1 January 2019 from 6.99 Bboe, an overall increase of 1.35 Bboe or 19 per cent from the previous year.

PETRONAS' total Contingent Resources (2C) stood at 15.09 Bboe, as at 1 January 2019. Exploration discoveries contributed 0.35 Bboe to our Contingent Resources addition in 2018, including those from Gabon, Africa, where our 70 per cent owned ultra-deepwater Block 14 (Likuale) is located.

Other than exploration discoveries, we also successfully secured new exploration acreages in 10 high-probable locations in 2018; and increased our Prospective Resources (Undiscovered) by 1.34 Bboe, or 19 per cent, to 8.52 Bboe, compared with FY2017.

As a whole, 2018 has been a record year for Reserves addition, and acreage and portfolio reloading. Whilst we sustained our operational excellence, Upstream's overarching goal in the coming years is to maintain a steady stream of material discoveries for portfolio sustainability. As such, ensuring a strategic balance in our allocation of domestic and international capital investments will be imperative, moving forward.

A reflection of the healthy replenishment of our Proved and Probable Reserves (2P), we registered an instantaneous 2P Reserves Replacement Ratio (RRR) of +3.19 in FY2018, affirming the sustainability of our production and provide reliable value for our stakeholders.

I am also pleased that we retained our Overall Resources (2P+ 2C) Life Index (ORLI) at close to 38 years, relative to current production rate, which is a testament to the robustness of our overall Resources (including Reserves) base.

The positive indicators provided by our key Reserves and Resources metrics, the RRR and ORLI, enable us to maintain a long-term horizon in monetising our resources via new collaborations and market opportunities, domestically and internationally.

KEY PERFORMANCE HIGHLIGHTS

Operational Excellence	• A record year for reserves addition that contributed to an overall reserves increase of 1.35 Bboe and instantaneous 2P RRR of +3.19. • Total of 27 projects achieved first hydrocarbon. • 10 exploration discoveries. • Signed 16 new Production Sharing Contracts (PSC). • Sealed 10 new LNG deals contributing a total of 5.84 million tonnes per annum (mtpa) of LNG sales. • PETRONAS Board approved US$61 million of minimum financial commitment for four newly-awarded exploration PSCs. These PSCs will be signed in 2019.
Cost Management	• Attained value of RM3.6 billion from industry-wide cost optimisation, cash savings, and cash generation under CORAL 2.0.
Portfolio High Grading	• Acquired a 10% stake in Block 61, Oman. • Acquired a 25% stake in LNG Canada project in Kitimat, British Columbia. • Executed Final Investment Decision (FID) for LNG Canada project in Kitimat, British Columbia, and La Amarga Chica, Argentina. • Signed a 20-year LNG Sale and Purchase Agreement (SPA) with United States-based Cheniere Energy, Inc. for 1.1 mtpa of LNG supply.

UPSTREAM

DELIVERING PRODUCTION AND INVESTMENT EFFICIENCY

CAPEX (RM bil)	FY2018 (actual)	FY2017 (actual)	FY2016 (actual)
MALAYSIA	8.4	7.5	13.5
INTERNATIONAL	19.0	7.3	8.8
TOTAL	**27.4**	**14.8**	**22.3**

Actual 5 years:

CAPEX

	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	**Total 5 Years**
(RM bil)	56.9	51.7	22.3	14.8	27.4	**173.1**

Plan 5 years:

CAPEX

	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	**Total 5 Years**
(RM bil)	32.0	33.7	34.0	34.0	33.9	**167.6**

A cost savings of RM900 million was achieved for FY2018 with an operational expenditure (OPEX) of RM31.6 billion, vis-à-vis a targeted RM32.5 billion. This was realised on the back of sustained productivity, better cost management, and leaner operations from the ongoing digitalisation of our offshore production processes. Management anticipates Upstream OPEX for FY2019 to be further reduced to RM30.4 billion through continued cost rationalisation to uphold PETRONAS' competitiveness and resilience.

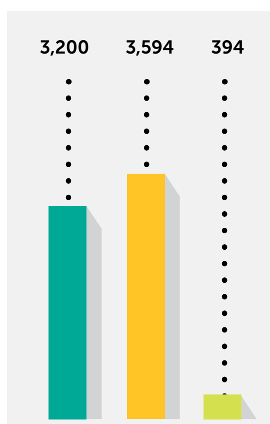
Total equity production for the year stood at 2,361 kboe/d, marginally higher than our targeted 2,354 kboe/d. Amongst the countries where our international CAPEX for 2018 focused on include Canada, Argentina, Mexico, Oman, and Gabon. These are proven countries with abundant hydrocarbon resources.

One of our significant overseas investment is PETRONAS Energy Canada Ltd and its partners who own 53.8 trillion of cu ft (Tcf) of gas 2P reserves and 2C contingent resources (at gross basis) in North Montney, British Columbia – more than half of the gas 2P reserves and 2C contingent resources in Malaysia of about 79.6 Tcf (at gross basis). We are also optimistic of our future oil resources in Mexico founded on our 10 blocks in the Mexican Ridges and the Salinas Basin, on Mexico's offshore. Working with our development and production partners, we foresee the first wells will be drilled in 2019 and achieve first oil in 2026 for conventional production.

In line with PETRONAS' three-pronged strategy to maximise our cash generators, CAPEX for our overseas assets is expected to rise in tandem with the anticipated growth in overseas upstream activities over the next five years, from our traditional 60:40 (domestic:overseas) ratio CAPEX allocation. Nonetheless, the Group maintains our five-year CAPEX allocation at RM250 billion, consistent with our annual CAPEX budget of RM40 billion to RM50 billion.

IMPROVING OPERATIONAL RESILIENCE

Value Optimisation Summary (RM million)

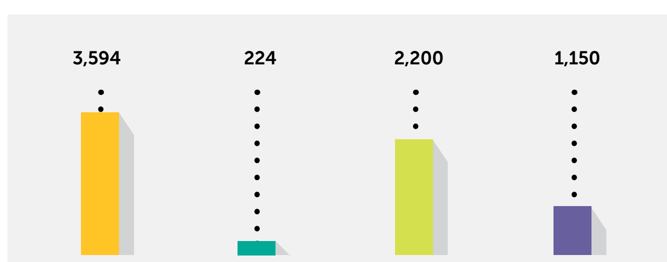


The total optimised value of RM3,594 million in FY2018 consists of:

- RM224 million from cost avoidance;
- RM2,220 million from cost savings, where 50% (RM 1,119 million) was contributed by CORAL 2.0 initiatives; and
- RM1,150 million from cash generation where 12% (RM137 million) was contributed by CORAL 2.0 initiatives.

FY2018 Target | Actual | Variance

Value Optimisation Breakdown (RM million)



Actual | Cost Avoidance | Cost Savings | Cash Generation

COST OPTIMISATION ACTIVITIES IN FY2018

RM158 mil
Helicopter and marine vessel optimisation

RM32 mil
Optimise SD plan for engine change out and overhaul

RM20 mil
LCD mainly from PM8 IIWR campaign

RM312 mil
Lower drilling cost from planning and well design optimisation

RM793 mil
PAC internal initiatives resulting in streamlined operations contract management, scope optimisation, and higher efficiency

RM810 mil
PAC internal initiatives resulting in process optimisation and higher production

RM137 mil
Planned deferment optimisation

Cost Avoidance
Cost Savings
Cash Generation

Through consistent collaboration between Malaysia Petroleum Management, Petroleum Arrangement Contractors (PAC), and Service Providers (SP), we created a value of RM3.6 billion in FY2018 from our operations in Malaysia, in conjunction with CORAL 2.0 initiatives. The generated value was derived from a combination of cost savings, cash generation, and cost avoidance measures, which exceeded our yearly value optimisation target of RM3.2 billion by 12 per cent or RM394 million.

The biggest contributor to CORAL 2.0's value creation in FY2018 came from cost savings, contributed mainly by PACs' and SPs' improved planning that resulted in lower drilling costs, optimised usage of resources, and better contract management. Cash generation initiatives, on the other hand, was contributed by proceeds received from additional hydrocarbon recovered as a result of PACs' internal and collaborative efforts in planned deferment optimisation.

Notably, the total value optimised since the inception of CORAL 2.0 in 2015 (including the value captured in FY2018) stands at RM15.1 billion. This was accomplished from the operationalisation of an extensive list of cost improvement measures. These measures are today adopted as standard 'business-as-usual' practices, including cross-PAC partnership which has become the new norm in Upstream Malaysia.

Following the last major oil price correction in 2014, PETRONAS' efforts in bringing the industry together has ensured greater industry resilience and preparedness to withstand future shocks in the global markets. Strategic cost streamlining initiatives have shifted our Upstream business unit production cost (UPC) in FY2018 to 32 per cent lower compared with 2014.

Expanding Global LNG Reach
As one of the world's largest seller of liquefied natural gas (LNG), PETRONAS remains at the forefront of global LNG supply, poised to meet growing energy demand in both the Pacific and Atlantic Basins. Prospects for LNG remain promising with demand expected to grow in 2019 due to increasing pro-LNG regulatory mandate in emerging and developed countries, including Republic of Korea, Japan, India, China, and Germany, amidst growing emphasis on green energy.

PETRONAS aspires to become the leading global LNG provider of choice by retaining its position as the world's third-largest LNG player, by continuing to secure firm commitments for LNG volumes via spot and term sales. To this end, PETRONAS is also embarking on vertical integration projects and small-scale solutions to further upscale our flexibility, such as LNG ISO tanks, to meet customer requirements.

UPSTREAM

UPSTREAM

I am glad to report that PETRONAS successfully secured a total of 5.84 mtpa of LNG Sales from 10 purchasers in 2018, including three new buyers, namely, Switzerland-based Vitol Group, Republic of Korea-based SK E&S, and China National Offshore Oil Corporation Limited. Efforts are underway to secure more sales in 2019 from traditional LNG markets such as Japan, China, Korea, and Taiwan, as well as emerging markets in Southeast Asia, the Middle East, and South Asia.

Worth mentioning, one of PETRONAS' LNG Upstream projects that was commissioned in 2018 – the Egypt WDDM Phase IXB project had successfully achieved first gas in October 2018. At the same time, our PFLNG Satu, the world's first floating LNG facility, delivered a total of 13 cargoes during the year. PETRONAS' second floating LNG facility, PFLNG Dua, is on schedule to achieve sailaway by Q1 2020 and commercial operations by Q4 2020.

Digitalisation to Fuel Growth

Leading the growing movement of digitalisation sweeping across the oil and gas (O&G) industry, PETRONAS accelerated its efforts in harnessing the power of data to sustain high productivity, improve effective decision-making, reduce downtime, and increase the effectiveness in problem-solving, especially for our offshore exploration, development, and production (EDP) activities.

Digitalisation has enabled us to gain access to real-time insights and diagnostics and integrate critical information into our value chain, to accomplish significant and sustainable cost savings, especially in areas such as geological surveying, drilling, as well as production and supply chain monitoring.

This is reflected in our Integrated Operations Centre – an entire floor dedicated to the O&G equivalent of an air-traffic control room – where all offshore vessels and EDP platforms are exhibited on a single display. The centralisation of our operations has optimised our processes for greater efficiency gains and oversight.

Taking another bold step in the integration of big data, PETRONAS launched 'Alpha LNG' in FY2018 to reduce supply and offtake mismatch along the LNG value chain. This is done by leveraging real-time data with predictive insights on gas field production rates, from the gas fields, LNG plant operating rates, and the rate of cargo offtake.

Alpha LNG's end-to-end centralised system allows us to make responsive and informed decision-making through gaining a full understanding of our position at the supply, storage, and

marketing levels. The insights also helped strengthen our market competitiveness by minimising market and production risks in long-term supply arrangements, whilst improving cashflow and forming new supply partnerships.

The collective benefits of our digitalisation measures have ensured that PETRONAS maintains its impressive zero-delay track record of more than 10,000 cargoes delivered since 1983. To us, being on time and fulfilling our promise are crucial to maintaining our reputation, reliability, and the trust that we have built with our customers worldwide.

Moving Forward

In the medium-to-long-term, Upstream business will continue to push new frontiers by leveraging new data and technology towards de-risking our processes, and identifying new plays to replenish portfolio inventory, particularly in Sabah and Sarawak.

Unconventional hydrocarbon will also increasingly take centre stage with our acquired assets in Australia, Argentina, and most recently, in Canada. We foresee our first shale oil project to be developed in the Americas in the coming years. Following a successful three-phase pilot project from 2015 to 2018 with Argentina's state oil firm Yacimientos Petrolíferos Fiscales S.A. (YPF) for La Amarga Chica (LAC) block's appraisal, we successfully entered the development phase on the country's Vaca Muerta shale oil fields. We envisage a daily production equivalent of 54,000 barrels of crude oil and gas by 2022 from this venture.

As part of our efforts to actively replenish our Reserves and Resources base, our maiden foray into Oman's Khazzan field after acquiring a 10 per cent stake in December 2018, marks an important step in realising PETRONAS' growth strategy in the upstream sector as we align our activities to ensure sustainable energy supply. The prolific Khazzan gas field is producing one billion cf/d of gas, with plans to expand production by another 500 million cf/d by 2021.

Governance and Disclosure (Reserves and Resources)

In August 2016, PETRONAS took a bold decision to set up an independent central team to implement the Reserves and Contingent Resources booking guidelines and governance that is aligned with globally recognised industry standards, guided by the Society of Petroleum Engineers Petroleum Resources Management System (SPE PRMS). After about one-and-a-half years of strengthening fundamentals and ensuring the rigorous implementation of the PETRONAS Reserves and Resources Management System (PRrMS), PETRONAS invited the top seven rated and internationally-recognised Oil and Gas Reserves auditors to bid for the first ever fully independent third-party audit of PETRONAS' end-2017 Reserves and Contingent Resources base and the ranges associated with subsurface uncertainties.

Sproule International Ltd (Sproule), a global energy consulting firm, based in Calgary, with a 65-year legacy of helping clients to evaluate and validate of their Reserves and Contingent Resources base, conducted an intensive independent audit exercise. The following is Sproule's audit opinion:

"Based on the results of our audit, it is our opinion that PETRONAS' internally generated proved, probable and possible crude oil, natural gas and natural gas products reserves, and the low, best and high crude oil, natural gas and natural gas products contingent resources are, in aggregate, reasonable, and have been prepared in accordance with the generally accepted oil and gas engineering and evaluation practices as set out in the PRrMS."

More specifically, PETRONAS' estimates came in within +/- 2% of Sproule's estimates for "1P+1C" (Proved Reserves and Low estimate of Contingent Resources), "2P+2C" (Proved plus Probable Reserves and Best estimate of Contingent Resources), and "3P+3C" (Proved plus Probable plus Possible Reserves and High estimate of Contingent Resources). This is testament to the integrity and robustness of PETRONAS' internally generated Reserves and Contingent Resources estimates.

As part of PRrMS governance and our journey towards full institutionalisation of PRrMS, we are now in the midst of a second independent end-2018 Reserves and Contingent Resources report, whereby the results are expected by Q3, 2019.

As at end-2018, PETRONAS' Reserves and Contingent Resources base are as follows:

Reserves	ARPR 1.1.2019		
	1P	**2P**	**3P**
		(in Bboe)	
PETRONAS Group - Entitlement			
Malaysia	3.29	4.95	6.61
International	1.67	3.39	3.99
TOTAL	**4.97**	**8.34**	**10.60**

Contingent Resources	ARPR 1.1.2019		
	1C	**2C**	**3C**
		(in Bboe)	
PETRONAS Group - Entitlement			
Malaysia	6.15	9.21	12.37
International	4.00	5.88	7.90
TOTAL	**10.14**	**15.09**	**20.27**

Note: Summation may not add up due to rounding of figures

DOWNSTREAM

Despite global and regional challenges, the Downstream business sustained its operational performance for the financial year.

The achievement is a testament of our continuous commitment and efforts in improving our operational excellence, maintaining our market competitiveness as well as overall product value positioning. As we *#play2win*, we continue to fuel our business through the customers' lens to accelerate our growth.

Datuk Md Arif Mahmood

Executive Vice President, and
Chief Executive Officer, Downstream

Operational Excellence through Focused Value Creation

With more than 30 years of experience in the oil and gas industry, we continue to prepare our assets and facilities for the unexpected challenges and improve overall operational efficiencies locally and globally. We remain guided by the core pillars of our Downstream Focused Framework: Operational Excellence, Commercial Excellence and Growth Delivery Excellence, which is to improve our overall efficiency, mitigate operational challenges in our integrated processes and ensure the organisation is supported by the right talent and culture.

Underscored by a robust business strategy, the core pillars also serve as our guiding principles in preparation of the unexpected markets and challenges. We have instituted process improvement measures across the supply chain to boost value creation in our products and services. These measures include advancing our digital and technological capabilities through partnerships and research, building trust and maintaining strong relationships with local and international clients, reinforcing product values as well as meeting the targets of our turnaround and project delivery.

Our efforts came to fruition with the overall revenue recorded at RM128.0 billion, 13 per cent higher compared with RM113.6 billion recorded in 2017. Our Profit Before Tax was recorded at RM10.4 billion, whilst Profit After Tax was recorded at RM8.5 billion for the year, 25 per cent lower compared with RM11.3 billion recorded in 2017 due to unfavorable market conditions and operational challenges. Despite this, our continuous improvement on a quarterly basis is evident in our efforts in improving operational performance and efficiency.

Overall Downstream Equipment Effectiveness (OEE) stood at 94.4 per cent for FY2018 across all business segments. The refineries in Malaysia recorded an OEE of 91.3 per cent whilst the refinery in South Africa recorded 95.9 per cent. Our trading arm also recorded an outstanding performance with the highest trading margin attributed by a stronger demand, focusing on high-value trading.

For the petrochemical business under PETRONAS Chemicals Group (PCG), we recorded an overall Plant Utilisation rate of 91.9 per cent. The sustained operational performance was contributed by stable operations at all manufacturing plants despite heavy statutory turnarounds at several major plants. We also recorded the highest annual production volume for the year at 10.4 million metric tonnes with an increase in sales volume up to 8.4 million metric tonnes compared to 2017. This achievement also generated the highest PAT of RM5.1 billion since 2014.

Our efforts came to fruition with the **overall revenue recorded at RM128.0 billion, 13 per cent higher** compared with **RM113.6 billion** recorded in 2017.

Petrochemical sales volume also increased by four per cent compared with the preceding year, backed by a steady demand in various segments of petrochemical products as well as higher-than-average product prices.

Enhancing Market Reach and Competitiveness

For the retail sector, PETRONAS Dagangan Berhad (PDB) recorded a 0.5 per cent increase in sales volume in FY2018, contributed by impactful marketing campaigns, enhanced customer experience and growth initiatives, as well as a consistent increase of fuel volume every quarter.

Our lubricants arm under PETRONAS Lubricants International (PLI) recorded a modest growth in selected countries despite higher raw material costs, whilst our retail business in South Africa under the brand of ENGEN also recoded an improved fuel volume compared to last year. The company had successfully implemented the 'Route to Market' programme in all core high-growth markets across the globe namely, China, India, Malaysia, South Africa, Italy, and Brazil. Supporting our strategic growth ambition, our newly-launched Global Research & Technology Centre in Turin, Italy is complemented by other satellite research and development (R&D) centres around the world, serving as a collective hub that links all lubricant technological innovation efforts across Asia, Africa, America, and Latin America.

DOWNSTREAM

Our intensive R&D leverages technology as a differentiator with a focus on playing an active role in reducing greenhouse gas (GHG) emissions. The majority of PLI's research programmes aim to improve the energy efficiency of engines and drivelines through fluid technology, reducing the carbon footprint of vehicles powered by internal combustion engines.

Strategic Growth for Business Sustainability

During the year, we also achieved significant milestones in our key growth projects which have moved at a positive pace, and remained on-track in meeting the target date of completion. In delivering our critical capital investment projects, we implemented new strategies to avoid peaking our resources, whilst ensuring that work is delivered safely, reliably and efficiently.

In delivering world-benchmarked projects enabled by state-of-the-art technology, we have constantly pushed the boundaries of innovation in our project strategy, design, procurement and execution practices underscored by a value-driven approach. Strong attention to cost management, teamwork, collaboration as well as top-notch safety and health processes remains a core priority in realising PETRONAS' project delivery excellence.

The Pengerang Integrated Complex (PIC) achieved 97 per cent completion, as at December 2018 and successfully received its first crude oil cargo at Pengerang Deepwater Terminal 2 (PDT2) in September 2018. Crude charge-in was on target in October 2018.

For the petrochemical business, we successfully ventured into specialty chemicals by producing the Integrated Aroma Ingredients Complex as well as citral, citronellol, L-menthol and HR-PIB at BASF PETRONAS Chemicals (BPC) in Gebeng, Pahang. This investment will position us ahead of the curve in the regional specialty chemicals market.

DOWNSTREAM

KEY DOWNSTREAM HIGHLIGHTS

Petrochemical Plant Utilisation
91.9%

Achieved
265 million
man hours in 2018

Five consecutive
World Constructors' Championships
from 2014 to 2018

In 2018, the Downstream business also recorded 265 million man hours, an increase of 17 per cent compared with the previous year, mainly contributed by PIC. The PIC project reached its peak construction with more than 63,000 workers from 60 different nationalities on-site. Covering an area of 6.239 acres, the entirely self-sufficient complex was built at a cost of US$27 billion and is PETRONAS' largest downstream investment project in history.

The upgrading of our refinery in Melaka is also on-track with an aim to increase the production of Euro 5 diesel to 126,000 barrels per day by 2020, up from the current 30,000 barrels per day. We currently supply close to 70% of the domestic gasoline and diesel demand in Malaysia.

The completion of this RM1.5 billion project is in line with the Malaysian Government's announcement in October 2018 to implement the sale of Euro 5 gasoline and petrol in the country by 1 September 2020 and 1 September 2025, respectively. With an improved formulation, the Euro 5 petrol will not only deliver better fuel savings, but also reduce the nation's carbon footprint. The globally-benchmarked Euro 5 fuel produced by our wholly owned subsidiary, Malaysian Refining Company Sdn Bhd (MRCSB) contains a sulphur content of less than 10 and incorporates PETRONAS' proprietary Fluid Technology Solutions™ which will improve engine efficiency and emissions performance. The same cutting-edge technology is used by our Mercedes-AMG PETRONAS Formula 1 Championship team, which powered the Silver Arrows to win five consecutive World Constructors' Championships from 2014 - 2018.

In 2018, the Downstream business also embarked on a range of digital initiatives throughout the year as part of our business strategy. The journey converged multiple digital initiatives allowing us to successfully initiate the first building blocks towards driving full digital adoption across the business. The initiative aims to unlock value and business opportunities for manufacturing and operational business, with end-to-end visibility of plant operations status and performance.

"We deliver **innovative solutions driven by the customers' needs** with optimised cost-to-serve."

DOWNSTREAM

PDB adopts a customer-centric mindset while embarking on a transformation journey to enhance the customer experience. We have developed a new retail experience that is seamless and frictionless for our customers through our new digital initiatives. Riding on the global mobile convergence phenomena and the increasing advancement of wireless devices, our new mobile and web-based apps seek to diversify PETRONAS' touchpoints and deepen customer engagement, whilst leveraging the comprehensive range of products and services that we provide.

We anticipate big potential in our latest e-business platforms that will further extend the limits of our value chain with 24/7 availability, and the potential to scale at a relatively low entry cost. At the core of our initiatives is our strategic business model that addresses modern day consumers' pain points by offering on-demand services and value-added convenience.

Setel

The first fuel e-payment solution in Malaysia that allows customers to purchase fuel, and eventually c-store items, directly from smartphones, eliminating the need to queue at the counter. It is now available at more than 250 PETRONAS stations within the Klang Valley and will be made available in all regions nationwide by December 2019.

ROVR
FUELLED BY PETRONAS

An innovative on-demand mobile fuel delivery service that provides customers with a convenient, seamless, and safe refueling experience. It is the first mobile fuel delivery service in Malaysia and Southeast Asia.

DOWNSTREAM

Zero-Incident Remains As Our Benchmark
Our '*Jom Patuh & Tegur*', or 'Let's Comply and Intervene' campaign is key to driving a generative safety culture. Our campaign ranging from regular trainings, awareness programmes and tighter work supervisory, have directly reduced the number of major incidents by 50 per cent compared with 2017, despite higher man hours spent at our core project in PIC. However, despite our best efforts, we have suffered the loss of three lives in 2018.

A stronger safety message is being delivered across the organisation to reinforce our zero-incident target and we believe that the Health, Safety, Security and Environment of our workers is a collective responsibility of each and every one of us, irrespective of roles and ranks. This aspiration is only achievable with the commitment from every employee.

We will continue to be guided by PETRONAS' Cultural Beliefs, leveraging the 'See It, Own It, Solve It, Do It' cultural model of accountability to embed sound safety culture across all geographies and work levels within the Downstream business.

Moving Forward
Our integrated business infrastructure, expanding digital and technological capabilities as well as the rising capacity of our operations to deliver high-value differentiated products have provided us with the competitive advantage, so we can play to win.

In delivering the last mile in the oil and gas value chain via our extensive distribution and marketing network, we will remain sensitive to the market's expectations by further strengthening our brand relevance and market positioning, whilst ensuring a sustained focus on environmental and social sustainability.

More than ever, accelerating disruptions in the marketplace calls for all PETRONAS employees to play and collaborate as a team of one, improve our pace of execution, and more importantly, leverage digital and technology to take us further.

ENVIRONMENT

TOWARDS **SUSTAINABLE ENERGY**

The transition to a low-carbon economy is one of the great challenges of our time. The Paris Agreement has set the global expectations for combating climate change. Together with other commitments, there is now pressure on countries to accelerate actions and initiate changes in their energy systems. Rising urbanisation, ageing populations, and a growing middle class also add to the evolving requirements for energy systems globally.

Whilst fossil fuels will remain core to the global energy mix, we promote the use of natural gas and liquefied natural gas (LNG) as a lower carbon fuel. Today, natural gas is Malaysia's largest source of energy, providing nearly half of the fuel required for power generation and a third of the industrial sector's energy needs.

LNG also forms the backbone of Malaysia's petrochemical industry. To ensure a sustainable supply, we work with Governments to create a more competitive gas market, supported by ongoing gas advocacy efforts. A competitive gas market will also result in better prices and services for the end-user.

Paving the Way Towards a Low-Carbon Economy
PETRONAS' resilient and integrated business model supports our path towards transitioning to a low-carbon economy. Over the years, PETRONAS has invested heavily in the development of new technology to maximise energy resources and reduce our environmental footprint, for example through carbon dioxide (CO_2) management. Investments have also been made in emerging technologies through collaboration with academia and various parties and corporations.

Since 2016, PETRONAS has embarked on a journey of digital transformation that will allow us to deliver greater value by leveraging advanced digital analytics and machine learning.

We are guided by the PETRONAS Climate Change Framework to identify, assess, and prioritise risks pertinent to our business operations. Identified high-risk elements are subsequently integrated into the PETRONAS Enterprise Risk Management profile, group-wide.

A Thematic Sustainability Approach

Investing in Low-Carbon Solutions
- To intensify our clean energy efforts, a New Energy unit will be fully operationalised by 2019. The unit develops sustainable revenue streams decoupled from oil and gas, with an initial focus on solar and wind.
- Research and development in Carbon Capture, Utilisation and Storage (CCUS).
- Delivering fuel efficiency from our Fluid Technology Solutions™ products (Primax, Syntium).
- PETRONAS Research collaborates with Daimler Automotive on green projects, such as Low-Carbon Fuel and Vehicle Emissions Control.
- PETRONAS supports Yayasan Sabah in the conservation of Imbak Canyon Conservation Area (ICCA), a Class-1 forest reserve.

Driving Operational Excellence
- Zero continuous flaring and venting of hydrocarbon in the design of new Upstream and Downstream facilities and projects.
- Reduce continuous flaring of hydrocarbon at all existing Upstream and Downstream facilities.
- Malaysia Petroleum Management (MPM) to apply a country level CO_2 emission allowance in the planning process for high CO_2 field development.
- Promoting natural gas as a low-carbon fuel.
- Energy efficiency in operations throughout our value chain.

Building Resilience
- We are integrating solar power in our daily operations. Today, PETRONAS has several existing solar photovoltaic (PV) projects with a combined capacity of about 10.7 MW in Gebeng, Pahang, and in Suria KLCC and a Solaris retail kiosk in Kuala Lumpur.

We will continue to build our expertise in the sustainable production of oil and gas to provide uninterrupted and affordable energy supply and contribute towards a better quality of life for all. At the same time, we are investing in cleaner energy solutions to accelerate the energy transition towards a low-carbon economy.

The Future of Gas
We forecast that in the next few decades, demand for natural gas will grow at a much faster rate than oil or coal. New technologies for the efficient removal of CO_2 in high-CO_2 gas fields have developed rapidly in recent years, allowing us to venture into feasible natural gas sources.

Although fossil fuel emissions from the consumption of natural gas are much lower than those from coal and oil, there are other environmental risks to consider in its production. For example, methane leakage can negate its GHG emissions advantages. Therefore, the key to developing a sustainable low-carbon LNG industry is to mitigate methane leakage associated with the production, transportation, and liquefaction of natural gas.

As an integrated and reliable global LNG player with over 35 years of experience, PETRONAS is currently the world's third largest LNG supplier. Our innovative suite of LNG solutions includes break-bulking, ship-to-ship LNG transfers, LNG bunkering and ISO-tank solutions, amongst others.

CLIMATE CHANGE & ENVIRONMENTAL MANAGEMENT

We are tackling climate change by reducing GHG emissions across our businesses and developing solutions for a low-carbon economy.

2018 KEY HIGHLIGHTS

- Reduced our monitored carbon footprint by 13% from 2017 and achieved a cumulative 12 million tonnes of GHG emissions reduction since the PETRONAS Carbon Commitments were introduced in 2012. This is largely due to strong efforts in reducing flaring and venting in our Upstream business, within our Malaysian and international operations.
- Climate change strategies and long-term GHG emissions reduction roadmaps are being developed to address key climate change risks and opportunities.
- Established guiding principles to support businesses and effectively enhance our implementation of the PETRONAS Carbon Commitments.
- Stepped up growth in renewable energy initiatives and developed new energy products with lower associated GHG emissions.

Material Factors:
- Climate Change
- Environmental Management
- Biodiversity and Ecosystem Services

CLIMATE CHANGE

In light of the world's unprecedented growing energy demand, it is imperative that nations work together towards reducing their carbon footprint by lowering global greenhouse gas (GHG) emissions, prevent global warming of more than 2°C above pre-industrial times and mitigate the associated climate impacts.

The oil and gas industry have a pivotal role to play in this global shift to a decarbonised economy by leveraging innovative low-carbon solutions to deliver energy.

PETRONAS embraces the transition and is committed to supporting host countries in meeting their pledges to the Paris Agreement, as well as in harnessing potential opportunities in this new era.

ENVIRONMENT

PETRONAS Climate Change Position

We duly recognise our role as a player in the global energy sector to balance the issue of climate change with the challenge to sustainably produce affordable and reliable energy.

We acknowledge that the emerging low-carbon economy poses potential liability, physical, and transitional risks to the business which will need to be managed, particularly in Malaysia where we have the greatest presence. Nevertheless, our climate-focused actions offer potential growth opportunities for PETRONAS to continue delivering operational excellence, technological developments, and the expansion of cleaner energy portfolio.

We are committed to work towards better management of climate change risks and opportunities within the Company, whilst keeping abreast of the changing external landscape. Our climate actions serve to both mitigate GHG emissions and adapt our businesses to the potential impacts of climate change to ensure business sustainability and secure our position in the new energy landscape.

The PETRONAS Climate Change Framework will guide our business processes to identify, assess and prioritise risks pertinent to our business operations. The Framework drives our climate actions in the areas of carbon footprint, mitigation and adaptation, in alignment with our three-pronged strategy. Identified high-risk elements are subsequently integrated into the PETRONAS Enterprise Risk Management profile for group-wide implementation.

We highlight emerging legislation in relation to climate change and work closely with Group Risk Management and Group Corporate Strategy, as well as the Business Risk units to manage potential exposure arising from carbon liability. We partner with Group Research and Technology to ensure that the right technologies are developed at the right time for the right purpose.

WHAT GOVERNS US

- PETRONAS Health, Safety and Environment Policy
- PETRONAS Climate Change Position Statement
- PETRONAS Climate Change Framework
- PETRONAS Carbon Commitments and Guidelines
- PETRONAS Mandatory Control Framework – Air Emissions/GHG
- PETRONAS Technical Standards on GHG Monitoring, Reporting and Verification
- PETRONAS Project Management System
- PETRONAS Procedures and Guidelines on Upstream Activities
- PETRONAS Exploration and Production Flaring and Venting Framework
- PETRONAS Energy and Loss Management System

We are focused on expanding our core business by advocating the low-carbon benefits of natural gas, as well as stepping out into renewables. Operationally, we aim to reduce flaring and venting, and drive energy efficiency improvements throughout our operations to generate revenue whilst lowering our carbon footprint.

ENVIRONMENT

PETRONAS Carbon Commitments

The PETRONAS Carbon Commitments (PCC) were developed in 2012 to guide the management of our GHG emissions. PETRONAS is now in the midst of formulating the next set of targets, leading up to 2030, consistent with the aspirations set under the Paris Agreement and the United Nations' SDGs. These commitments are key drivers to reducing GHG emissions, whilst generating value and building business resilience.

The PCC are applicable to all businesses and Petroleum Agreement Contractors (PACs). Upstream and Downstream businesses, together with Group Project Delivery and Technology (PD&T), are responsible for the incorporation of the PCC requirements in relevant business systems and processes, both domestically and internationally. Group HSSE monitors and reports on the progress of PCC implementation to the Corporate Sustainability Council (CSC) and the PETRONAS HSSE Executive Leadership Team.

The PCC were enhanced in 2017 to include requirements on managing high CO_2 fields, carbon pricing, carbon offsets, and renewable energy. In 2018, we developed the PETRONAS Carbon Commitments Guidelines to help businesses implement the commitments effectively.

Planning and Projects

- Zero continuous flaring and venting of hydrocarbon shall be incorporated in the design of new Upstream and Downstream facilities and projects.
- Malaysia Petroleum Management (MPM) shall apply a country level CO_2 emission allowance in the planning process for high CO_2 field development.
- High CO_2 field development in Upstream shall incorporate Carbon Capture, Utilisation and Storage (CCUS) technologies at design stage.
- Carbon price shall be considered in project decision-making together with the option of carbon offsets where economically feasible.

Operations

- Zero continuous venting of hydrocarbon for all existing Upstream and Downstream facilities.
- Reduce continuous flaring of hydrocarbon for all existing Upstream and Downstream facilities where operationally and economically feasible.
- Downstream and LNG operating assets shall meet and sustain top quartile energy performance.

Renewable Energy

- Renewable Energy technologies shall be considered in all facilities and projects where operationally and economically feasible.

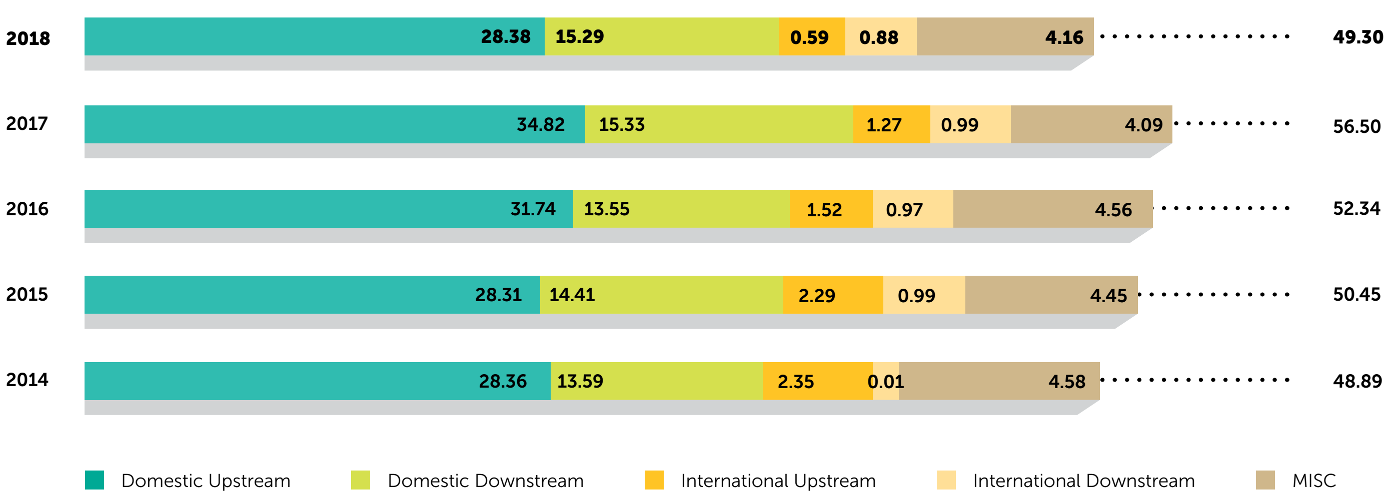
Since efforts to monitor CO_{2e} began in 2012, PETRONAS has reduced CO_{2e} by 10.07 million tonnes up to 2017. This momentum continued through 2018 with a further reduction of 1.54 million tonnes of CO_{2e} due to concerted efforts in reducing flaring and venting in our Upstream business, both in Malaysian and international operations.

Moving beyond FY2018, we have developed a long-term GHG emissions reduction roadmap outlining our internal emissions reduction initiatives to support Malaysia's commitment to the Paris Agreement.

ENVIRONMENT

PETRONAS CARBON FOOTPRINT

GHG EMISSIONS
(million tCO_{2e})



Note:
1. Our carbon footprint is reported on an operational control basis which includes the following international assets:
   a. Upstream business - Indonesia, Myanmar, Turkmenistan.
   b. Downstream business - Argentina, Belgium, Brazil, China, Italy, South Africa and Spain.
2. GHG data for 2013-2017 have been restated following ongoing efforts aimed at streamlining our accounting practices with the revised PETRONAS Technical Standard on Greenhouse Gas Monitoring, Reporting and Verification.

PETRONAS has revised its Technical Standard on Greenhouse Gas Monitoring, Reporting and Verification to align with the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. The most significant impact is the change in values of the Global Warming Potentials, which is reflected in our restated GHG performance figures this year.

In 2018, PETRONAS successfully reduced its carbon footprint by almost 13 per cent from 56.50 million tCO_{2e} in 2017 to 49 million tCO_{2e} in 2018. This is largely contributed to flaring and venting reduction initiatives as well as other Upstream operational excellence drives and Downstream improvements in plant efficiency and plant utilisation rates.

However, MISC Berhad exhibited a 1.7 per cent increase in GHG emissions in 2018 compared with 2017, as a result of increased fleet activity.

Since the introduction of PETRONAS Carbon Commitments, we have cumulatively reduced 12 million tCO_{2e} and monitised 187 million standard cubic feet of gas per day over the past 5 years. In 2018 alone, PETRONAS further reduced 1.54 million tCO_{2e} and monetised an additional 37.25 million standard cubic feet of gas per day. This was largely attributed to PETRONAS domestic Upstream business which successfully reduced 0.82 million tCO_{2e} through three key flaring and venting reduction projects. The remaining 0.72 million tCO_{2e} was achieved by international Upstream business through flare reductions in its operations.

ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

WHAT GOVERNS US

- PETRONAS Health, Safety and Environment Policy
- PETRONAS Mandatory Control Framework – Air Emission, Environmentally Hazardous Substances, Waste Management, Soil and Groundwater, Project Environmental Impact Assessment, and Wastewater Management
- PETRONAS Technical Standards and Guidelines
- PETRONAS Project Management System
- PETRONAS Procedures and Guidelines on Upstream Activities

We recognise the growing level of environmental awareness, standards and regulations applicable to the oil and gas industry. In response, we continuously work towards improving operational excellence and processes to reduce our environmental impact and manage our operations safely and responsibly.

PETRONAS has in place internal standards to manage air emissions, wastewater and effluents, hazardous waste, soil and groundwater, project environmental management and use of natural resources in our operations. We benchmark against external standards and guidelines such as International Finance Corporation (IFC), World Bank, and applicable local requirements to ensure the effectiveness of our internal standards.

In 2018, we continued to support the Malaysian government's initiative in promoting a self-regulation system to enhance compliance with environmental laws by rolling it out across the Group. We also proactively share our technical expertise with relevant authorities on air emissions, storage and handling of hazardous wastes/materials, environmentally hazardous substances, marine water, decommissioning, environmental-related crises, and project environmental management.

ENVIRONMENT

BIODIVERSITY AND ECOSYSTEM SERVICES

Biodiversity and ecosystem services (BES) are the benefits that ecosystems contribute towards our well-being. Environmental disruptions in locations where we operate could potentially affect the quality and availability of BES to the local communities, and our operations. We recognise the significance of managing our impact and address this concern through concerted risk assessments and conservation efforts.

In 2018, we completed three biodiversity and ecosystem services risk assessments focusing on different phases of PETRONAS' operations including seismic survey, construction, and operations. The risk assessments complemented and improved the BES considerations within the environmental impact assessments (EIA) that are required for project approval.

Our efforts are also reinforced through collective conservation efforts via our ecosystem conservation initiatives such as coral reef rehabilitation, forest biodiversity protection, carbon sequestration through reforestation, and environmental awareness programmes for communities.

PETRONAS carries out various major environmental conservation projects to ensure BES sustainability and the continued well-being of the communities. Conservation projects by PETRONAS include:

- Marine habitat rehabilitation project at Sibuti, Sarawak
- Biodiversity, Environmental and Conservation (BEACON) Project, Similajau, Sarawak
- Trees4Life to create new green lung in Bintulu, Sarawak
- Sungai Latoh Mangrove Planting, Johor
- Imbak Canyon Conservation and Research, Sabah
- Forest Conversation Programme in Sayang Hutan, Kampung Tanaki, Sabah
- Water for Life, Malaysia
- PCG Be Green, Malaysia
- Ecocare, Malaysia

Find out more about PETRONAS' environmental performance and BES initiatives in our PETRONAS Group Sustainability Report 2018, available online at: www.petronas.com.

SOCIAL RESPONSIBILITY

We are focused on identifying and managing human rights risks and impacts of our business. Our human rights approach applies to all staff and contractors. It is embedded across PETRONAS' codes, policies, systems, and practices. Supplementing our respect and advocacy for human rights are our voluntary actions to make positive contributions to the community, as we continue to drive shared and sustainable prosperity by empowering various stakeholders through our social investments.

2018 KEY HIGHLIGHTS

- Organised over 70 human rights-related training for staff and contractors
- Yayasan PETRONAS channelled more than RM325 million to Corporate Social Responsibility
- Introduced five signature programmes under Yayasan PETRONAS including
  - o Sentuhan Ilmu, Planting Tomorrow and Youth Programme (recently enchanced in 2018)
  - o Teacher Ambassador and Imbak Canyon Research Grant (new programmes)

Material Factors:
- Human Rights
- Corporate Social Responsibility

PETRONAS defines social performance as managing impacts arising from areas of our business whilst contributing to society in a responsible manner.

Social performance practices are governed by the PETRONAS Social Performance Framework, which consists of five key elements, namely: Health, Safety, Socio-economic and Cultural, Environment, and Security. It entails robust social risk management, human rights due diligence, as well as adequate systems and processes aligned with industry best practices. Leading our efforts is a dedicated pool of Social Performance practitioners, supported by multidisciplinary teams within our business lines, operating and holding company units.

HUMAN RIGHTS

PETRONAS strives to create positive impacts on communities and stakeholders in locations where we operate. We have measures in place to manage the social risks related to business activities. In 2018, we continued our efforts to further enhance our social risk management to better identify and mitigate risks in PETRONAS projects and operations across the globe.

PETRONAS is guided by our Human Rights Commitment, established in 2015. We abide by and respect rights of the local communities, contracted partners in our supply chain, our staff and all other stakeholders which we may interact with across our operations, in accordance with internationally established conventions.

SOCIAL RESPONSIBILITY

Our standards and guidelines are in line with the United Nations Guiding Principles on Business and Human Rights (UNGPs), focusing on four areas: Labour and Working Conditions, Responsible Security, Supply Chain Management, and Community Well-being. We have also made mandatory the establishment of grievance mechanisms for projects and operating units (OPUs) to address HSE and social matters raised by affected stakeholders during the lifecycle of our business activities. In 2018, we extended all these requirements to our production-sharing contractors and other contractors through the PETRONAS Procedures and Guidelines for Upstream Activities (PPGUA).

WHAT GOVERNS US

- PETRONAS Code of Conduct and Business Ethics
- PETRONAS HSE Policy
- PETRONAS Social Performance Framework
- PETRONAS Human Rights Commitment
- PETRONAS Contractors Code of Conduct on Human Rights
- PETRONAS Procedures and Guidelines for Upstream Activities
- PETRONAS Technical Standards and Guidelines

Whilst we have strengthened our social risk governance, we recognise there are priority areas to address.

In 2018, we focused on contractor management as part of our two-year programme to familiarise contractors with the PETRONAS Contractors Code of Conduct on Human Rights (CoCHR) and assessed contractors' ability to meet the requirements. We initiated the programme, which will be completed in 2019, to identify and mitigate issues related to contractors' human rights performance. Our approach to contractor management is taken from a labour and working conditions perspective, and forms part of PETRONAS' overall efforts to address HSE standards.

We also focused on training programmes amongst the staff to increase awareness of the PETRONAS Human Rights Commitment and their respective responsibilities in fulfilling these Commitments.

CONTRACTOR MANAGEMENT

In 2018, a total of 11 domestic contractors were assessed on compliance with the CoCHR. Results from these assessments indicated that contractors are able to comply with related Malaysian laws and PETRONAS' CoCHR. Nevertheless, we identified areas for improvement amongst which include the formalisation of grievance mechanisms. Human rights were included as part of the mandatory HSE contractual requirement, contractor assurance checklist, and Supplier Tracking and Assessment Rating (STAR), as part of efforts to integrate human rights into our contractor management process.

PETRONAS provided technical leadership and advisory services, as part of a working group, to develop the Human Rights Policy, Modern Slavery statement and the adoption of PETRONAS' CoCHR for our subsidiary, MISC Berhad.

TRAINING AND CAPABILITY BUILDING

In 2018, we continued to provide in-house training to highlight the importance of respecting human rights and integrating human rights practices across our businesses. A total of 72 sessions were conducted for more than 800 colleagues and 53 contractors.

Human rights is embedded as part of the mandatory module for 'In Service Training' for all PETRONAS Auxiliary Police (AP). The training ensures our AP understand the importance of honouring human rights in carrying out their duties. A total of seven training programmes involving 210 APs were conducted in FY2018.

Moving Forward

PETRONAS is completing its assessment of all active contractors in Malaysia, as we continue our efforts to educate our contractors on human rights and how to create a safer working environment for all who work on our premises. Internally, we will continue to intensify our communications across the Group through training programmes to ensure the expectations and requirements of the PETRONAS Human Rights Commitment is understood and abided by.

SOCIAL RESPONSIBILITY

HUMAN RIGHTS ACTIVITIES IN 2018

PETRONAS participated in multiple leadership events in FY2018 to share the company's best practices in promoting human rights awareness in our industry and across the globe.

- Sponsored and showcased our Human Rights Commitment to promote public awareness during the Human Rights Commission of Malaysia's (SUHAKAM) Human Rights Day. The event was attended by members of the public, government agencies, non-governmental organisations and representatives of the private sector.
- Instilled human rights awareness in our Overseas Assignment Remuneration Package (OARP) programme. Over 34 sessions were held with a total of 200 colleagues trained.
- Chaired and facilitated sessions on human rights management at World Gas Conference (WGC) organised by the International Gas Union (IGU) in Washington DC, United States of America.
- Presented three papers at the International Association for Impact Assessment (IAIA) Conference sharing our best practices on social performance.
- Presented PETRONAS' human rights practices at the seventh Responsible Business Forum, organised by the United Nations Development Programme (UNDP) and Global Initiatives in Singapore.
- Jointly established the Social Performance Asia Pacific Circle (SPAC) with Shell, a first for the industry. The SPAC is a platform where social performance (SP) practitioners in the industry exchange ideas, discuss common SP issues, and advance SP implementation in the region. Members of SPAC include BP, ExxonMobil, Woodside and Repsol.

CORPORATE SOCIAL RESPONSIBILITY

PETRONAS is committed to increase the positive impact of our presence whilst contributing to the prosperity of the local economy. Our business thrives in diverse societies, each with its trajectory of interests and expectations for growth. Embracing local norms, we work towards forming mutually beneficial partnerships to share the value we create and channel social investments that are consistent with the needs of local communities, as part of our corporate social responsibility (CSR).

Our approach to creating socio-economic progress centres around empowering local communities with the right knowledge, skills, and capabilities. We are guided by the PETRONAS Corporate Social Investment (CSI) Framework to realise our mission statement to contribute towards societal well-being. In 2018, we spent slightly more than RM325 million on our corporate social responsibility.

Yayasan PETRONAS, launched in March 2019, is the corporate foundation of PETRONAS which streamlines all our CSR efforts towards creating lasting tangible impact for the community. The foundation continues PETRONAS' CSR legacy by enhancing community programmes that have been ongoing since 1974.

SOCIAL RESPONSIBILITY

Yayasan PETRONAS – Three Focus Areas and Programme Strategy

Focus Areas	**Sentuhan Ilmu - Education** To increase the pool and skills of human capital and spur economic progress via science, technology, engineering and mathematics (STEM) education.	**Sentuhan Harapan - Community Well-being and Development** To improve the quality of life through social innovation.	**Sentuhan Alam - Environment** To create a sustainable environment through research and innovation.
Goals	Contribute towards 60:40 national STEM enrolment	Sustainable economic growth	Reduce year-on-year environmental impact
Objectives	Improve education opportunities for underprivileged students to realise their lifelong potential through access to STEM education and generate human capital to foster future economic growth.	Improve standards of living for underprivileged communities and youth by creating pathways for sustainable livelihoods.	Protect the environment through conservation and carbon neutral programmes.

Yayasan PETRONAS conducts activities and directs its investments in three focus areas, according to its guiding principles of Value Creation, Sustainable Impact, Effective Partnership, and Innovative Solutions. Target groups of the programmes are youths and B40 communities (families whose median monthly household income do not exceed RM3,000).

PETRONAS' multi-dimensional social investment strategy helps create jobs, supports local capacity-building, and funds a myriad of community development programmes, which include:

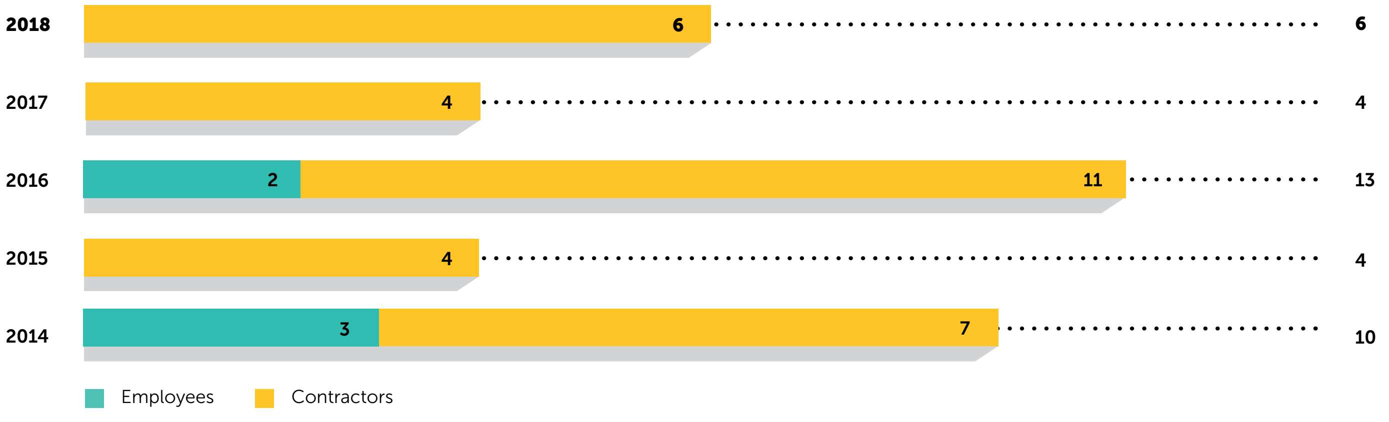
- Program Sentuhan Ilmu PETRONAS (PSIP)
- PETRONAS Education Sponsorship Programme
- Universiti Teknologi PETRONAS
- Planting Tomorrow
- Youth Programme
- Cancer Research
- Sentuhan Kasih PETRONAS
- Contribution to Sarawak NGOs for Welfare Programmes

To know more about PETRONAS' extensive social performance and other human rights contributions, please refer to our PETRONAS Group Sustainability Report 2018, available online at: www.petronas.com.

FIVE-YEAR SUSTAINABILITY PERFORMANCE DATA

SAFETY

NUMBER OF FATALITIES

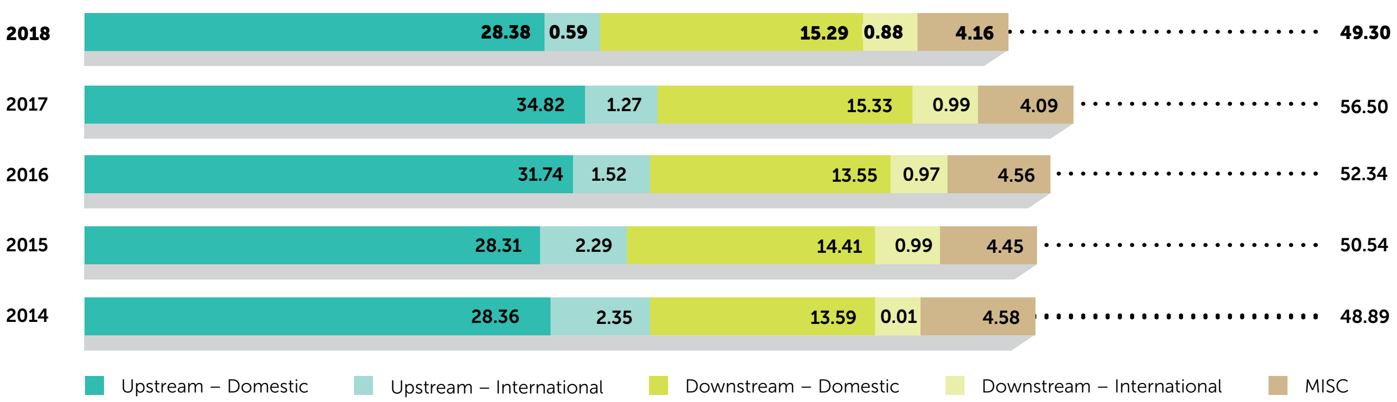


	2014	2015	2016	2017	**2018**
Fatal Accident Rate (FAR) Reportable fatalities per 100 million man hours	3.03	1.02	3.53	0.93	**1.29**
Number of cases per million man hours Number of cases per million man hours	0.19	0.20	0.26	0.17	**0.09**
Total Reportable Case Frequency (TRCF) Number of cases per million man hours	0.64	0.63	0.57	0.53	**0.38**
Number of Tier 1 Process Safety Events	7	15	12	12	**8**
Total Recordable Occupational Illness Frequency (TROIF) Illness per million working hours – employees	0.07	0.33	0.32	0.08	**0.22**

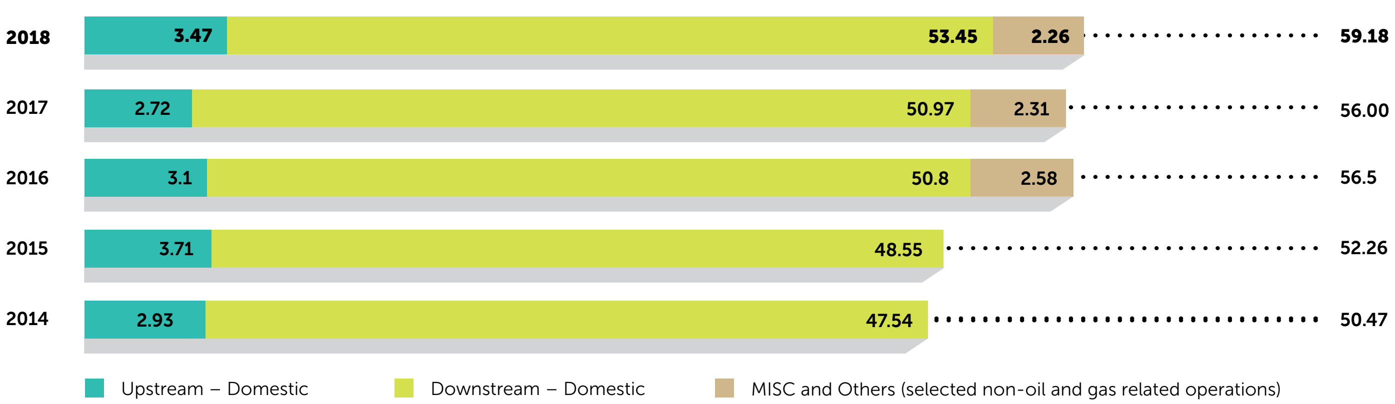
FIVE-YEAR SUSTAINABILITY PERFORMANCE DATA

ENVIRONMENT

TOTAL GREENHOUSE GAS EMISSIONS
(GHG Emissions (million tCO_{2e}))



TOTAL FRESHWATER WITHDRAWAL
(million cubic metres per year)



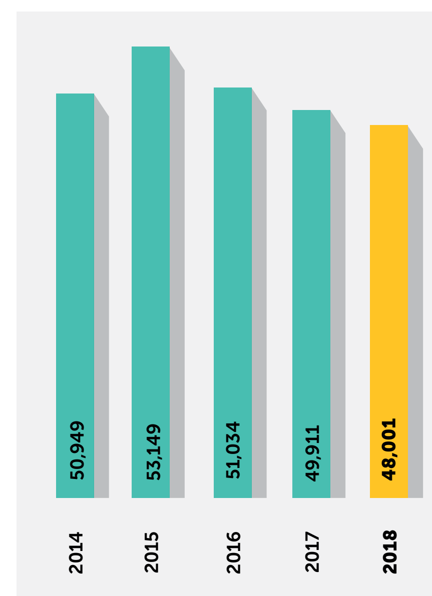
	2014	2015	2016	2017	**2018**
Total Amount of Energy Generated from PETRONAS Solar PV Installations (MWh)	15,050.00	15,201.00	14,449.00	13,627.00	**14,039.36**
Discharges to water (metric tonnes of hydrocarbon)	992	680	534	591	**715**
Number of hydrocarbon spills to the environment over one barrel (bbl) (one barrel is equivalent to 159 litres)	25	25	27	18	**7**

FIVE-YEAR SUSTAINABILITY PERFORMANCE DATA

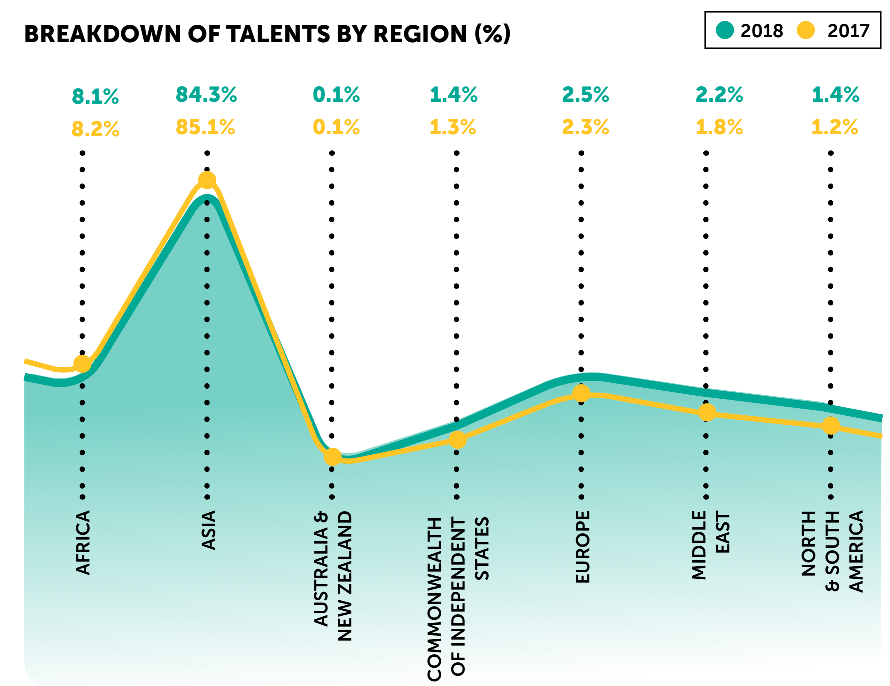
	2014	2015	2016	2017	**2018**
Total sulphur oxides emissions (metric tonnes)	61,698	86,814	72,134	87,917	**116,974**
Total nitrogen oxides emissions (metric tonnes)	100,915	154,128	168,954	159,498	**151,519**
Total hazardous waste disposed (metric tonnes)	26,974	29,280	32,355	19,755	**34,688**

OUR WORKFORCE

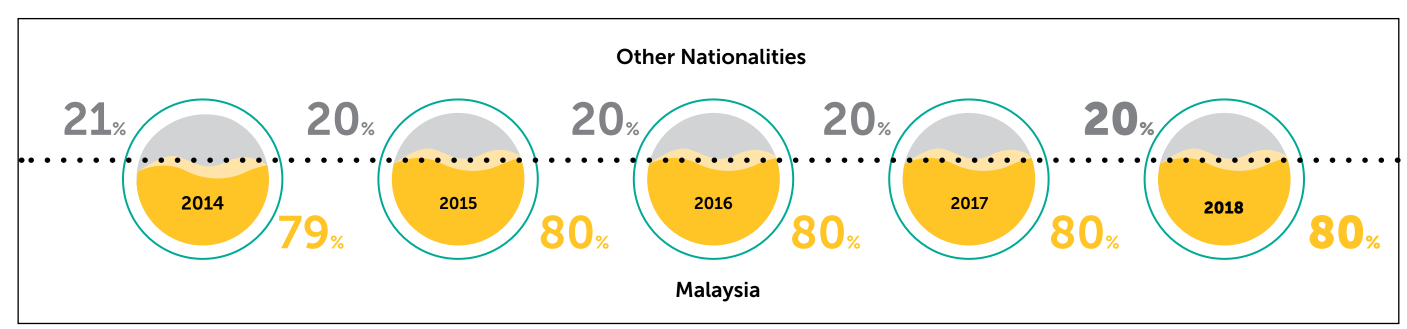
TOTAL NUMBER OF EMPLOYEES



BREAKDOWN OF TALENTS BY REGION (%)



BREAKDOWN OF EMPLOYEES BY NATIONALITY (%)



FIVE-YEAR SUSTAINABILITY PERFORMANCE DATA

	2014	2015	2016	2017	**2018**
Employment type (%)					
Permanent	85	83	85	85	**87**
Contract	15	17	15	15	**13**
Gender distribution (%)					
Male	72	72	72	72	**73**
Female	28	28	28	28	**27**
Number of group-wide technical expertise					
Technical Authorities (TA)	276	499	325	499	**577**
Technical Professionals (TP)	736	825	815	860	**941**
Technical Trade Specialists (TTS)	144	297	198	206	**225**
Employees above and below age of 35 (%)					
Above 35	46	47	46	46	**49**
Below 35	54	53	54	54	**51**
Total number of new hires (core businesses in Malaysia)	3,541	4,078	2,932	2,409	**2,512**
Malaysia	3,198	3,781	2,667	1,982	**2,098**
Other Nationalities	343	297	265	427	**414**
Women in technical positions (%)	14	14	12	14	**13**
Attrition rate (%)	5.7	5.9	7.3	5.8	**6.5**
Male	5.3	5.5	7.1	5.4	**6.2**
Female	6.7	7	8	6.8	**7.3**
Number of unionised employees	8,954	9,651	8,616	8,796	**9,949**
Number of PETRONAS scholars graduated (available for recruitment)	250	351	365	337	**262**
Recruited by PETRONAS (%)	47	51	50	48	**63**
Recruited by others (%)	53	49	50	52	**37**
Number of scholarships awarded to Malaysians	337	326	375	387	**329**
International Universities (%)	44	42	38	45	**49**
Malaysian Universities (%)	56	58	62	55	**51**
Number of sponsored students (Multinationals) Universiti Teknologi PETRONAS (UTP), Malaysia	257	191	147	118	**88**

SECTION

3

HOW WE CREATE VALUE

Find out how PETRONAS drives long-term and sustainable value creation through our transformative three-pronged strategy.

OUR MARKET **IN 2018**

The **global economy expanded**
3.6%,
supported by the US amidst its fiscal stimulus

LNG
now accounts for about a third of gas trades in the world, as **emerging buyers such as Bangladesh and Pakistan** tap into LNG to meet rising demand for power

The global economy entered 2018 on solid footing, with strong, synchronised growth in advanced and developing economies. The momentum, however, faded as the year progressed and the potential for upsides receded.

ECONOMY

The global economy expanded 3.6 per cent as economic activities slowed in the second half of the year. A confluence of factors, mainly the US-China trade tension, increasingly took a toll on business and financial market sentiments, weighing on growth in the US, China, and key exporting countries. Growth also weakened in developing countries, particularly Argentina, Brazil, Iran, and Turkey, reflecting country-specific factors, tighter financial conditions, geopolitical tensions and higher oil import bills.

UPSTREAM

Upstream spending rose for a third year, spurred by improving crude prices. The conventional sector made up about two-thirds of the spending, amidst development of large resources in Brazil, Guyana, Mexico, and Russia.

Oil companies sanctioned projects that utilised existing infrastructure, allowing companies to keep costs compressed.

Unconventional spending grew at a faster pace than conventional, as companies channeled spending towards North American shale assets in their quest for faster returns.

Following the reduction in exploration spending in the aftermath of the 2014 oil price crash, upstream discoveries plunged in 2018 to the lowest in a decade and half.

LNG

Last year saw China's LNG demand growing at more than 20 per cent, helping push global demand to another year of record, at more than 320 million tonnes per annum (mtpa). China was the second-largest LNG importer in the world, behind Japan.

The Chinese government pushed for coal-to-gas switching in its war against air pollution. As a result, its LNG imports surged, pushing spot LNG prices to above US$11 per million metric British thermal units (mmBtu).

LNG now accounts for about a third of gas trades in the world, as emerging buyers such as Bangladesh and Pakistan tap into LNG to meet rising demand for power.

Whilst LNG demand shrank in Japan, India recorded a significant growth of 21 per cent in LNG imports as economic expansion spurred demand for electricity and subsequently, natural gas burned in power plants.

On the supply side, 2018 saw three projects achieving final investment decision, a pick up from one in 2017.

DOWNSTREAM

Crude oil prices exhibited greater volatility in 2018 despite an improvement in prices. Dated Brent averaged US$71 a barrel compared with US$54 in 2017, a 32 per cent increase.

During the year, Brent fluctuated from a year-high of US$86 in early October to end of the year at US$50 as the global oil market turned from being tight to oversupplied.

Global oil demand increased by 1.3 million barrels per day (bpd) to 99.3 million bpd in 2018 though supply grew faster than demand. This was despite the extension to the end of 2018 production cuts by the Organisation of the Petroleum Exporting Countries (OPEC) and its allies.

The extension reduced commercial oil inventories in the Organization for Economic Cooperation and Development (OECD) countries to below the five-year average of 2.8 billion barrels starting in March 2018. However, towards the end of the year, the global oil market turned into surplus as major oil producers increased output following OPEC's decision in June to boost supply by 1 million bpd.

This came amidst rising concern that demand may slow following the US-China trade war and increased US oil production as well as the decision by the US to grant sanction waivers to eight major importers of oil from Iran in November.

Production from the US continued to grow, hitting a record of 11.7 million bpd in November 2018 to average 10.9 million in 2018.

In December 2018, OPEC pledged to extend the production cut to June 2019. Effective January 2019, OPEC participating members will reduce output by 800 thousand bpd (kbpd) and Non-OPEC by 400 kbpd, aimed at stabilising the oil market.

PETROCHEMICALS

In the petrochemicals sector, ethylene prices in Southeast Asia increased by 11 per cent to US$1,186 per tonne in 2018 from US$1,069 per tonne in 2017, supported by strong derivatives demand and high naphtha prices.

Globally, ethylene demand increased by 5.4 per cent to 160.2 mtpa in 2018, driven by strong consumption in Asia Pacific, North America and the Middle East. The three regions accounted for 90 per cent of global ethylene demand growth.

On the supply side, ethylene capacity increased by 4.6 per cent to 178.3 mtpa in 2018, led by the US, China and India. Together, these countries accounted for 80 per cent of global capacity additions.

The US continues to be the preferred investment location for petrochemical projects, with 6.4 mtpa of new capacities of ethylene and polyethylene brought onstream in 2018 compared with 6 mtpa in 2017. The new capacities accounted for half of the global expansion in 2018.

ENERGY AND ENVIRONMENT

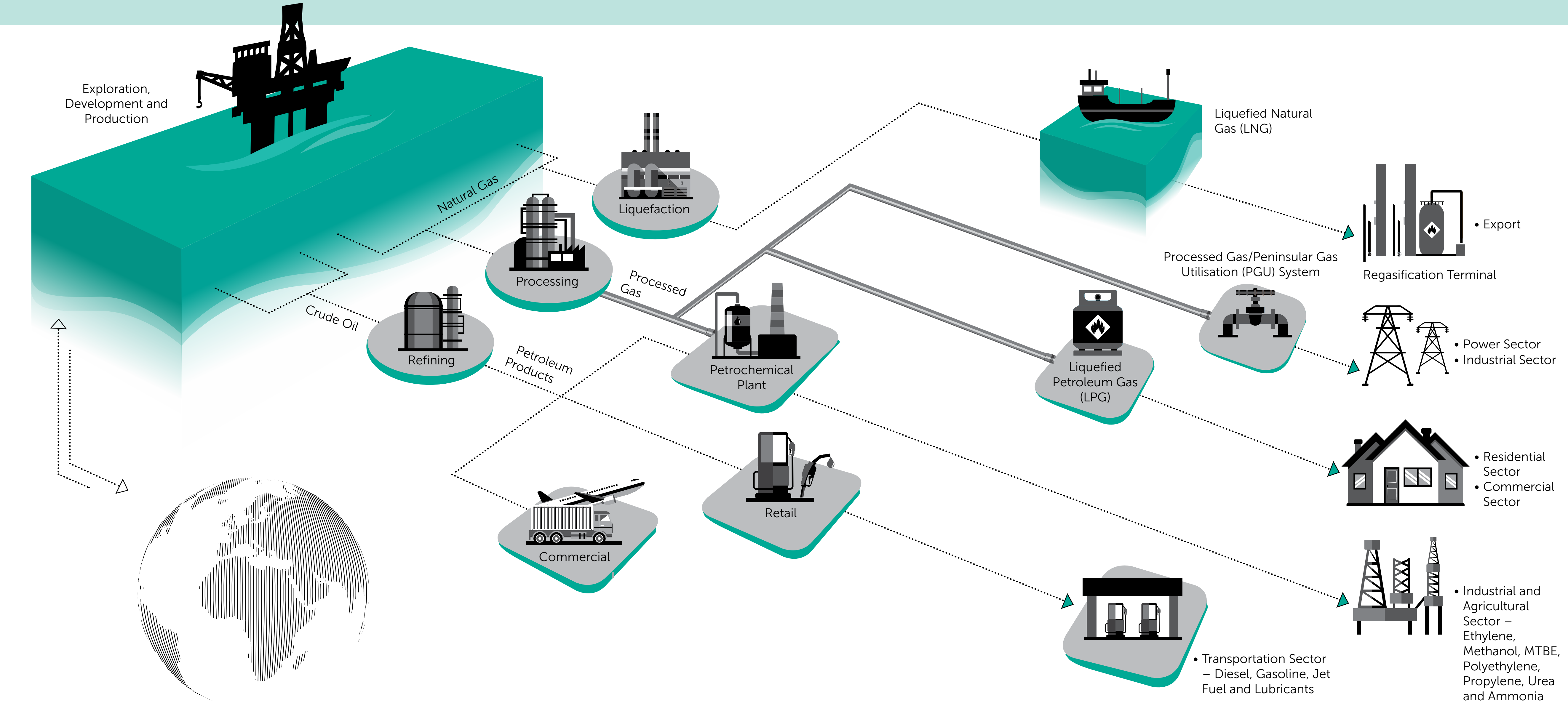
Primary energy demand in 2018 grew 2.0 per cent, accelerating from 1.7 per cent a year earlier. This was led by North America, developing Asia and Africa, offsetting deceleration in developed countries. Renewables growth outpaced those of fossil fuels, rising 23 per cent, amidst the global expansion of large-scale solar and wind projects.

The year also saw changes on the policy front for renewables where China halted subsidies for utility-scale solar projects in favour of competitive bidding and reduced feed-in-tariffs subsidy. The policy resulted in solar photovoltaic (PV) module prices dropping by more than 30 per cent by the end of the year. Enabled by a decline in costs, unsubsidised onshore wind and solar projects have become the cheapest sources of electricity generation in nearly all major economies.

Climate change, corporate social responsibility, falling renewable costs, and the drive to diversify have renewed a number of oil and gas companies' interest in the new energy sector. The United Nations' COP24 climate agreement in December 2018 saw most countries agreeing on key elements to bring the 2015 Paris Agreement back to life.

OUR INTEGRATED VALUE CHAIN

OUR INTEGRATED VALUE CHAIN



Our business model is driven by the principle of efficient integration to create value and make our business highly resilient through risk diversification.

EXPLORATION AND PRODUCTION

EXPLORATION
Developing resource potential and building up commercial reserves.

DEVELOPMENT
Field development and construction (including supporting infrastructure).

PRODUCTION
Drilling and production of hydrocarbons.

PROCESSING

LIQUEFACTION
Converting gas into liquid state by increasing pressure and reducing temperatures to shrink the gas volume.

PROCESSING
Turning streams of natural gas into commercial products, in addition to treating gas deposits.

REFINING
Processing crude oil and condensates into useful petroleum products.

MARKETING AND DISTRIBUTION

RETAIL
Selling and marketing of fuel and non-fuel products and providing one-stop convenience centres at service stations.

COMMERCIAL
Trading and marketing of crude oil and petroleum products to individual and commercial customers.

PETROCHEMICAL PLANT
Processing of oil and gas into products from which other chemicals are derived.

LIQUEFIED PETROLEUM GAS (LPG)
Propane and butane components used as cooking fuel, transport fuel and feedstock for petrochemicals.

PROCESSED GAS/ PENINSULAR GAS UTILISATION (PGU) SYSTEM
Natural gas is processed and fed into a pipeline system that delivers it to different sectors.

LIQUEFIED NATURAL GAS (LNG)
Natural gas that is liquefied under extremely cold temperatures to facilitate storage or transportation in specially designed vessels.

OUR **STRATEGIC FOCUS**

The oil and gas industry is facing unprecedented disruptions – rapidly growing global energy demand with the emergence of alternative energy sources, changing market conditions, shifting consumer needs, and exponential technology advancements. Amidst these disruptions, we remain focused on operationalising our three-pronged strategy to ensure PETRONAS' long-term sustainability and continued relevance in the future. A strong HSSE culture and good governance are integral to this strategy.

1 MAXIMISING CASH GENERATORS

Malaysia's Integrated Value Chain
- Maximise value of integrated production across the value chain through operational and commercial excellence

International Assets
- Monetisation of Canadian gas resources
- Continued focus on Southeast Asia to pursue resource monetisation and further exploration opportunities

2 EXPANDING CORE BUSINESS

Deliver Material Oil in Atlantic Basins
- Build materiality and improve our portfolio's oil-gas balance

Expand Unconventional Positioning
- Grow our unconventional positioning in North America, focusing on short-cycle investments

Balance Portfolio through Major Resource Holder Proven Oil
- Obtain steady cashflows that are less susceptible to oil price volatility

Deliver RAPID & Expand Adjacencies
- Successfully deliver RAPID by 2019 and expand value chain by extending into adjacent products

Grow the Integrated Business Model
- Replicate the integrated model that we have in Malaysia to selected regions, aligned with the growth of our resource base

3 STEPPING OUT

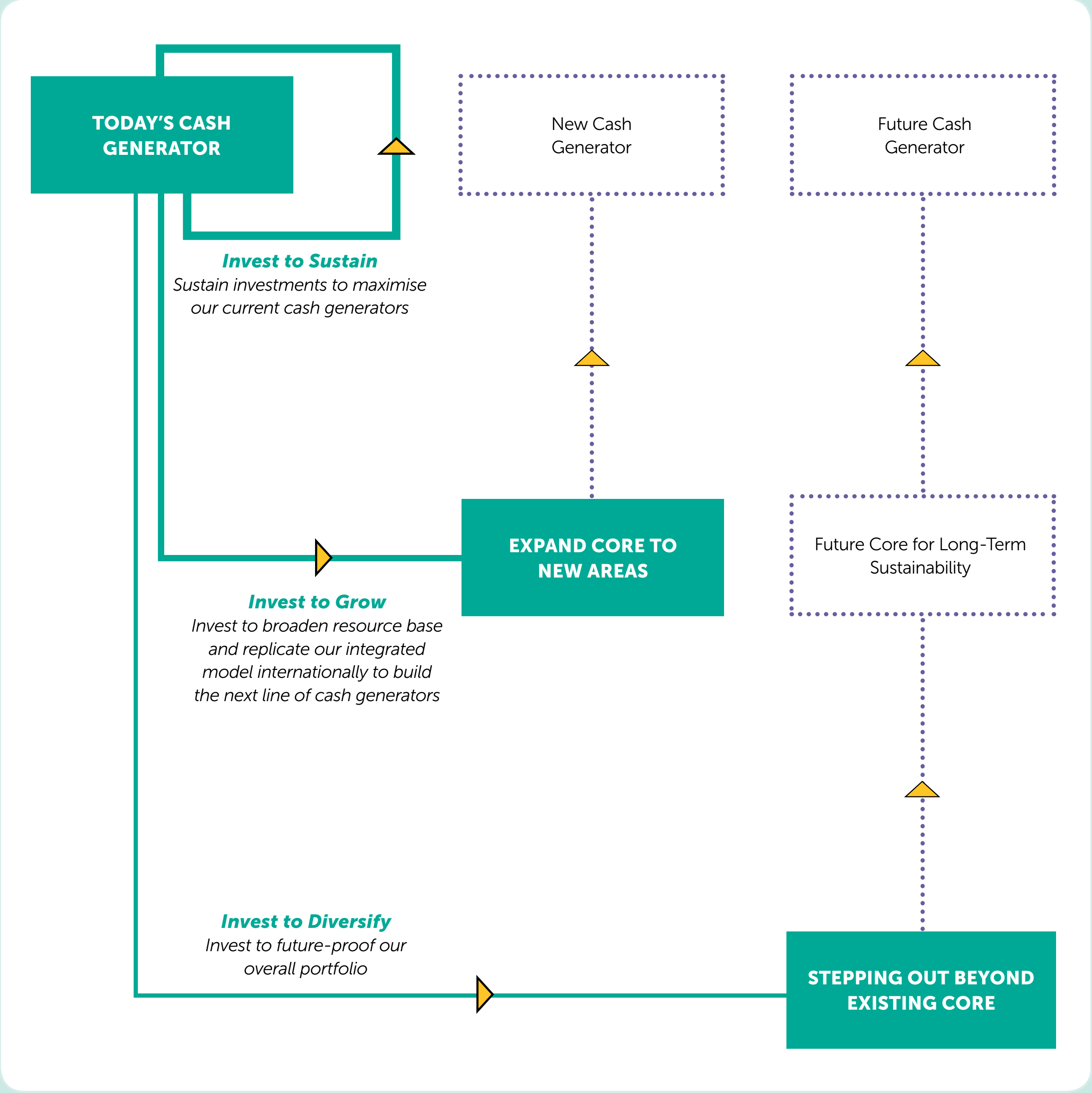
Specialty Chemicals
- Leverage our strong petrochemical foundations to venture into specialties

New Energy
- Position ourselves in new energy play to capitalise on potential business opportunities for the longer term

OUR **STRATEGIC FOCUS**

KEY SUCCESS FACTORS

TALENT	TECHNOLOGY	CULTURE
Right Talent, Right Leader, Right Environment	Driving Technology as a Differentiator	Exemplifying World-Class Work Culture



OUR **ADVANCED CAPABILITIES**

Delivering **World-Class** Projects

PETRONAS' commitment to project delivery excellence is founded on our ethos of smart collaborations, portfolio-driven approach, innovative design, value-based project economics, and strategic procurement practices, supported by proven technology and our team of dedicated engineers and technical experts.

Our strength in project delivery is reflected through an Independent Project Analysis (IPA) benchmark, where it shows that our project performance has improved steadily towards the Top Quartile quadrant, driven by various strategies and efforts put in place over the years.

Amongst the strategies include CAPEX compression efforts which yielded encouraging results in cost efficiency and will continue to be implemented and ingrained as part of Business As Usual (BAU) for Upstream Carigali Operated Blocks (COB) projects. Projects sanctioned at Best In Class (BIC) are on track to be completed at BIC cost. CAPEX Compression has become pervasive and mature which will further strengthen our journey towards becoming BIC project delivery to support all businesses.

We are proud to share a list of our ongoing latest project delivery throughout our Upstream and Downstream divisions as follows:

Division	Projects	Unique Functions and Technology Features
Upstream	PETRONAS Floating Liquefied Natural Gas Dua (PFLNG Dua)	A state-of-the-art floating LNG tanker that enables the liquefaction, production, and offloading of natural gas to LNG terminals in remote deepwater locations.
		PFLNG Dua will be moored at the Rotan gas field in deepwater Block H, offshore Sabah, Malaysia.
		Has an LNG processing capacity of 1.5 million tonnes per annum (mtpa).
Downstream	Pengerang Regasification Terminal 2	One of the associated facilities in the Pengerang Integrated Complex (PIC).
		Provides gas supply to the Refinery and Petrochemical Integrated Development (RAPID), Pengerang Cogeneration Plant and the Peninsular Gas Utilisation grid to ensure gas availability in Malaysia.
		Provides LNG unloading and reloading, storage, handling and regasification.
		LNG processing capacity of 3.5 mtpa.
	Pengerang Deepwater Terminal 2	One of the associated facilities in PIC.
		Provides handling, storage and distribution of crude oil, petroleum, and petrochemical feedstock, products and by-products to and from the RAPID Complex.
		Deepwater jetty with 12 operating berths.
		Storage capacity of approximately 1.3 million cubic metres.

OUR **ADVANCED CAPABILITIES**

Division	Projects	Unique Functions and Technology Features
Downstream	Melaka Refinery Diesel Euro 5 (DELIMA)	Malaysia's largest crude oil refinery.
		Total existing refining capacity of 265,000 barrels of refined petrol and diesel per day.
		Incorporates Fluid Technology Solutions™, a formula used by Mercedes-AMG PETRONAS Formula One team.

The PETRONAS Digital Journey

Digital innovation allows us to combine information and technology to improve human and machine performance. It is fundamentally changing the way we work and live, upending the status quo and disrupting industries, compelling companies to rethink every aspect of their business.

PETRONAS is fully embracing this disruption head-on, taking steps on a journey to orchestrate digital transformation across the organisation. We simply want to entrench the digital culture in the way we work, as we move towards becoming a data driven organisation to deliver new value.

We recognise however, that at the core, digital is not about technology, but about culture and mindset. It is about taking an outcome-led approach and prioritising the needs of customers. Thus, we relentlessly seek to remove customer frictions and serve even the latent, unmet needs of our customers, whether they are internal or external.

Our digital journey is anchored on the purpose of solving specific business pain points. To ensure that we deliver maximum impact, each pain point is addressed through the lens of the enterprise. By starting small, we are able to quickly apply the lessons learnt in the pilot phase to improve outcomes before scaling it across the enterprise.

OUR **ADVANCED CAPABILITIES**

We have introduced a mobile refueling service that delivers fuel directly to customers, and a seamless payment experience, enabling our customers to complete their transactions and activate the fuel pumps from the comfort of their cars.

Anchored by business pain points, our digital journey is one that spans across the integrated value chain. Fundamentally, we focus on harnessing the power of data to enable precision in decision-making across our entire business.

Of utmost priority is our efforts to promote and push the desired HSSE behaviours. Backed by data, we are better able to determine proactive action plans, and in turn, have seen higher engagement levels with our staff. Across the integrated value chain, we are working to provide end-to-end visibility of key data, enabling us to be more nimble to adapt and respond to changes. We are also leveraging the power of machines to better retain corporate knowledge and make it conveniently accessible to less experienced staff. In operating our assets, we leverage analytics to push plant performance, by enabling predictive capability and consistent reporting from all plants.

For our front facing business, we seek to disrupt and raise the bar for a seamless customer experience. To date, we have introduced a mobile refueling service that delivers fuel directly to customers, and a seamless payment experience, enabling our customers to complete their transactions and activate the fuel pumps from the comfort of their cars. At the core, we seek to transform the way key functions serve the business such procurement, finance and human resource, unleashing a multiplier effect for the enterprise.

All of these are a sampling of our digital efforts, as we continue to explore and innovate within and beyond our organisational boundaries.

Success is, however, measured by our ability to make fundamental changes in the way we work. We continue to learn that becoming a digital enterprise requires far more profound changes than merely investing in the latest digital technologies. Thus, we put great emphasis on enhancing digital fluency of every staff, through immersion programmes and focused outreach. As digital fluency grows, each person will be in a better position to adapt to the changes and opportunities presented by digital transformation. Holistically, teams, departments, businesses – the organisation as a whole – will be better prepared to not only adapt to changes, but to drive change within the organisation.

Our journey has only just begun. With the resources that are available today and the accessibility of digital capabilities, there has never been a better time for us to re-examine our capacity for change. With digital, the opportunities are plentiful and the value potential is massive. It will naturally enable new dimensions for collaboration between teams, within and outside of our organisation, as guided by data. Ultimately, this will enable us to be bolder in pushing boundaries and scaling new heights.

OUR **ADVANCED CAPABILITIES**

Expanding Leading-edge Expertise
In addition to increasing the pace of delivery and optimised returns, our investment in research and development (R&D) technology resonates with our capital discipline approach to lower capital intensity with better design, operations, and maintenance throughout each project lifecycle.

Enabling our technological lead and differentiated capabilities is the strength and diversity of our extended R&D team of more than 400 scientists and researchers, who continue to receive international honours and recognitions for their work. A testament to PETRONAS' global oil and gas expertise is the growth of our intellectual property from 10 patents in 2009 to 217 in 2018, as well as 23 product awards, and 11 related accolades won by our research staff.

Local and international acknowledgement

23
product awards

11
related accolades won by PETRONAS staff

Intellectual Property

3X
more patents

217
patents accorded to date in 2018

Recognising that having the right talents is amongst the most crucial elements in pushing our technology frontier, the PETRONAS Scientist Development Programme was developed to broaden and extend our talent pipeline to encompass critical and new-growth areas, aligned with our business imperatives. As a result, we have increased the number of in-house scientists and researchers from 47 in 2017 to 77 in 2018, with a target ratio of 1:2 doctorate holders by 2022.

Our Comprehensive Technology Approach
With globalisation, the future of the oil and gas industry is evolving to become more collaborative, with traditional delivery approach, such as the owner-operator model, shifting towards a more partnership-based strategy where technology solutions are co-developed, leveraging the capabilities and strength of each partner.

INNOVATION GATEWAY @ PETRONAS

Have a revolutionary technology you wish to share with us?

Please scan the QR Code and tell us about your products in the 'Technology Marketplace' section and let us know about your unique solutions in our next 'Technology Challenge'.

PETRONAS' systematic and pervasive approach to stay at the forefront of innovation is manifested through its large technology resource base, including in-house R&D, crowdsourcing through **Innovation Gateway (IG) @ PETRONAS**, targeted partnerships with industry leaders and varsities, as well as venture capital investments, with an aim to accelerate the technology pace and impact outcomes.

The idea of IG@PETRONAS is to seek innovative solutions and collaboration from the global community for our complex business challenges. We offer the real life environments to our partner which will enable the fast-track application of the innovative ideas.

To date, IG@P has received an encouraging response from its target audience. More than 60 open-sourced technology products were developed and almost half of them meet our evaluation criteria and endorsed for immediate application at PETRONAS' assets. This crowdsourcing initiative allows PETRONAS to enlarge its innovation funnel and diversify our skills.

OUR **ADVANCED CAPABILITIES**

Here are some updates on PETRONAS' technology progress in FY2018:

In-House R&D

Tripled the number of R&D projects from 96 in 2013, to 277 in 2018, anchored on seven technology programmes.

More than 50 Collaboration Partners

Teamed up with 40 industry partners comprising 8 local and 32 international players, and 12 renowned varsities including 6 local and 6 global universities, to advance PETRONAS' Technology Focus Areas, and enable data integrity at source.

Corporate Venture Capital

Expanded venture capital investments in 5 niche vertical areas which lead towards future commercialisation.

OUR **ADVANCED CAPABILITIES**

Technology to Realise Our Three-Pronged Strategy

Our strategy-aligned Technology Focus Areas underpin the positioning of our growth in the coming decades, amidst an increasingly challenging operating environment. Going forward, securing marginal gains through better efficiencies, improving safety and environmental protection, and continuously bringing down costs through digitalisation and automation, whilst boosting recovery rates will remain the key themes that will determine the immediate and medium-term performance of global oil and gas companies.

At the same time, growing high-value and differentiated adjacencies beyond oil and gas through new technological breakthroughs will future-proof PETRONAS as the preferred global energy provider. The following tables map the respective technological capabilities and initiatives that will support the realisation of our three-pronged strategy in the coming years.

1 MAXIMISING CASH GENERATORS

Malaysia's Integrated Value Chain:
- Maximise value of integrated production across the value chain through operational and commercial excellence.

TECHNOLOGY AGENDA

Improving Productivity, Efficiency, and Cost

The optimum operations of producing assets are subject to its design lifespan. As our assets begin to mature, continuous technical support and maintenance are needed for them to maintain productivity and cost effectiveness. This is carried out through mass deployment of in-house and readily available technologies, which monitor equipment conditions and initiate repair when necessary.

Embedding Process Digitalisation through Data Analytics, Artificial Intelligence, Automation and Robotic Solutions

Going digital will be one of our key enablers to maximise value, whilst improving cost efficiency and safety at remote offshore locations. By converting field data into digital format and enabling 24-hour system uptime, we are able to fully understand field conditions and make better decisions that will raise productivity. In PETRONAS, we have undertaken multiple digital initiatives that will seamlessly connect systems across various fields of operations – exploration, drilling and production – aligned to a central location to enable high visibility and management to achieve commercial targets.

International Assets:
- Monetisation of Canadian gas resources.
- Continued focus on Southeast Asia to pursue monetisation and further exploration opportunities.

TECHNOLOGY AGENDA

Monetising Technically Challenging and Remote Resources

Unlocking global energy resources is increasingly challenging than ever, as large conventional fields dwindle. The challenge lies in maximising the value of high CO_2 fields, exploration, and extraction in deepwater locations, and enhancing recovery rates from previously depleted fields. Overcoming this challenge would extend the production lifespan of each brownfield by an average of three to five years.

To this end, PETRONAS has ventured into:

1. **Carbon, Capture, Utilisation and Storage (CCUS) Technology** – The ability to monetise high CO_2 gas resources in an environmentally and economically feasible manner is important to ensure our production sustainability. Presently, 40 per cent of CO_2 saturation in LNG fields stands as the commercial limit with PETRONAS' CO_2 membrane technologies. Where applicable, PETRONAS' Gas Sustainability Technology provides a holistic and integrated solution to lower the break-even costs of sour gas fields.
2. **Enhanced Oil Recovery (EOR)** suite of technologies show significant potential in unleashing a substantial amount of hydrocarbons from existing oil fields economically. EOR can potentially improve oil production beyond current Recovery Factor (RF) of 36 to 46 per cent. The application of EOR technologies has proven to be successful in Tapis field, where oil production has increased from 8,000 barrel of oil per day (bopd) to 34,000 bopd.

OUR **ADVANCED CAPABILITIES**

2 EXPANDING CORE BUSINESS

Deliver Material Oil in Atlantic Basins
- Build materiality and improve our portfolio's oil-gas balance.

TECHNOLOGY AGENDA

Subsurface Prediction to Increase Success in Drilling

Our proprietary Geoimaging technology allows us to improve drilling success through better-designed wells, whilst optimising upside potentials, and de-risking exploration prospects. We registered a strong track record of discoveries with our Geo-Imaging Technology in 2014, achieving seven discoveries out of eight exploration attempts.

Leaner Operations through Remote, Autonomous Functions

Our future operating model, labelled Facilities of the Future (FoF), will cut our offshore brownfield operating costs by half come 2026 through centralised, modular and mobile-oriented capabilities. Globally, oil and gas companies are running leaner and meaner exploration and production operations, facilitated by technology. The future of offshore oil and gas is unmanned platforms, with workers moving from offshore to onshore office-based roles. PETRONAS is actively seeking ways to deploy digital technology in terms of data analytics, automation, and robotic solutions through our FoF programme to carry out surface operations, maintenance, and logistics.

Expand Unconventional Position
- Grow our unconventional position in North America, focusing on short-cycle investments.

TECHNOLOGY AGENDA

Unleashing Unconventional Hydrocarbon Resources

To complement our existing conventional resources, we strive to develop unconventional fields through emerging technologies including fracking and subsurface modelling for "smart drilling". Through this effort, PETRONAS aims to increase the value of our unconventional resources with lower capital outlay.

Balance Portfolio through Major Resource Holder Proven Oil
- Obtain steady cashflows that are less susceptible to oil price volatility.

TECHNOLOGY AGENDA

Safeguarding Financial Stability and Long-term Value Creation

PETRONAS' oil and gas portfolio currently stands at a ratio of 70:30 (gas: oil) and we are amongst the top LNG producers in the world. To ensure steady cashflow from our resources, our technology proposition strives to minimise the impact of oil price volatility through proven gas extraction technology. Efforts are also directed at growing adjacent revenue sources from our lubricants and Fluid Technology Solutions™ products, which aim to deliver higher engine performance and greener emissions.

1. **CO_2 Separation Technologies** – a key innovation to overcome the challenge of high CO_2 content in natural gas, to significantly reduce CO_2 concentration to meet the plant processing requirement for liquefaction of natural gas.

OUR ADVANCED CAPABILITIES

② EXPANDING CORE BUSINESS

TECHNOLOGY AGENDA

2. **Base Oil Technology** – Our base oil R&D aims to yield better quality base oil (Group III+) in making our lubricants. We gain and sustain market competitiveness in our lubricants segment by ensuring higher profit margins and delivering superior product performance through specialised additives for even better fuel efficiency, extended engine performance, and emissions reduction.

3. **F1 Technology Fuels and Lubricants** – PETRONAS aims to be the leading Fluid Technology Partner of choice for our customers. Fluid technology harnessing Ionic Liquid and Graphene, developed for F1 for optimum race performance, is transferred and applied to products for everyday passenger cars. The value-added technology creates major revenue impact by increasing our global lubricants market share i.e., Syntium Cooltech™. We also launched new fuel products with F1 technology, such as the New Primax. The technology is being developed in partnership with Daimler (Mercedes AMG) and PETRONAS Lubricants International (PLI). Moving forward, our fluid technology R&D will be expanded into emerging applications, such as: high-vacuum hydraulic fluids, gas turbine engine oil, and related green fluid technology to be exploited group-wide.

Deliver RAPID and Expand Adjacencies
- Successfully deliver RAPID by 2019 and expand value chain by extending into adjacent products.

TECHNOLOGY AGENDA

RAPID: On Track for Commercial Operations in Q1 2019
As PETRONAS' largest downstream investment in Malaysia, RAPID is part of the Pengerang Integrated Complex (PIC), designed to be a fully-integrated and self-sufficient petroleum refinery and petrochemical complex. PIC provides a seamless end-to-end technology ecosystem that includes refining, hydrocarbon cracking, and manufacturing end-products, such as basic polymer commodities and specialty chemicals.

Instilling Product Leadership and Environmental Sustainability
To strengthen its leading-edge technology position in the global lubricants market, PETRONAS Lubricants International (PLI) launched its Global Research & Technology Centre in March 2018 in Turin, Italy, a major automotive industry hub in Europe. Our Fluid Technology Solutions™, namely PETRONAS PRIMAX and PETRONAS Syntium, have been the winning formula powering the Mercedes-AMG PETRONAS Formula One team the five-time consecutive F1 World Champion. We streamlined our research objectives, in line with PLI's current R&D programmes, to focus on improving energy efficiency of engines and drivelines, whilst reducing the carbon footprint of vehicles powered by internal combustion engines. By developing efficient driveline fluids for electric drivetrains, we also help reduce the carbon footprint of electric vehicles, thereby improving the environmental sustainability of the transport sector.

OUR ADVANCED CAPABILITIES

② EXPANDING CORE BUSINESS

Grow the Integrated Business Model
- Replicate the integrated model that we have in Malaysia to selected regions, aligned with the growth of our resource base.

TECHNOLOGY AGENDA

Ensuring Mobility of End-to-end Energy Solutions
Our robust integrated business model is defined by innovative Upstream and Downstream capabilities that strengthen our reputation as a reliable supply partner for our customers. Our complete value chain presence is targeted to be replicated and transferred to key reserve locations globally.

UPSTREAM: PETRONAS Floating Liquefied Natural Gas (PFLNG) facilities – PFLNG Satu and Dua – extend the limits of our capability to monetise stranded gas fields, whilst enabling greater logistics flexibility from field to plant. The FLNG facilities also facilitate the development of small and remote offshore gas fields in Malaysia, which have not been explored due to the high costs required to develop and extract the gas reserves. Amongst the key features of PFLNG include natural gas liquefaction technology, offshore floating facilities, and subsea infrastructures. PFLNG Satu is the world's first floating LNG project to use the dual-row cargo containment system, which enables the LNG cryogenic storage tanks to be tolerant to sloshing within the ship's hull during its journey. Both PFLNG facilities are expected to produce a combined estimated 2.7 million tonnes of LNG per year. (PFLNG Satu – 1.2 million tonnes and PFLNG Dua – 1.5 million tonnes).

DOWNSTREAM: Please refer to pages 56 to 57 for details on our RAPID Project.

③ STEPPING OUT

Specialty Chemicals
- Leverage our strong petrochemical foundation to venture into specialities.

TECHNOLOGY AGENDA

Creating New Growth in Specialty Chemicals
As part of PETRONAS' step-out growth strategy, we have embarked on the development of specialty chemicals to address the increasing demand for higher quality surfactants. With our breadth of capabilities in surfactant formulation, we are able to undertake technology development of proprietary specialty surfactants for personal care and Enhanced Oil Recovery (EOR).

New Energy
- Position ourselves in a new energy market, to capitalise on potential business opportunities for the longer term.

TECHNOLOGY AGENDA

Greening PETRONAS Premises through Renewable Energy Sources
Taking advantage of ample sunlight and the abundant surface area of our offshore platforms and petrol stations, we initiated 'Projek SINARAN' where solar panels are installed at our Upstream and Downstream assets to complement our electricity usage. Current SINARAN Solar PV panels projected electricity generation of 24.1MWp will contribute to the reduction of greenhouse gas (GHG) emissions amounting to 26,072 tonne CO_{2e} per annum.

This is in line with one of SINARAN objectives, which is to enhance PETRONAS' reputation as a responsible company in environmental management, and generate cost savings, resulting in reduction of greenhouse gas (GHG) emissions.

THE GLOBAL MARKET **IN 2019**

ECONOMY

The global economy is expected to expand 3.3 per cent in 2019, slower than 2018 and marginally lower than the 10-year historical average of 3.4 per cent.

Divergent trends will persist in 2019. The US economy growth will remain solid, underpinned by a strong labour market. Other key economies will experience further deceleration – Europe's expansion may slow, Japan's recovery will remain weak, and China will continue to decelerate.

Signs are pointing to increased vulnerability of the global economy. Threats of trade conflicts continue to remain elevated, with heightened political uncertainty on the back of a host of elections in key economies including India and Indonesia, as well as rising geopolitical risks in the Middle East and North African regions.

UPSTREAM

This year, the unconventional sector remains a key focus of the industry because the sector has proven its ability to provide investors with faster returns compared with larger offshore projects such as deepwater developments in Brazil.

However, crude price volatility may prompt oil companies to pull back spending, which will have repercussions on the industry by the next decade when discoveries fail to rebound.

Digitalisation and automation will be applied in a more pervasive manner in the upstream sector as oil companies embrace technology to simplify and optimise operations, and raise efficiency of exploration to prevent costs from surging when prices recover.

LNG

Australia is poised to surpass Qatar as the world's largest LNG exporter in 2019, when all 10 LNG projects in Australia are in operation.

By the end of 2019, the US with its LNG developments will overtake Malaysia as the third-largest LNG exporter in terms of capacity.

Demand for LNG will increase because of governmental push to clean up the environment. Bahrain is set to be a new LNG importing nation, joining the ranks of Middle East LNG buyers, including Kuwait, Jordan, and the UAE.

China's LNG demand may expand at a slower rate compared with 2018 as a result of slowing economic growth.

This year could be a busy year for the LNG market. After only three LNG projects with a total capacity of 21 million tonnes per annum (mtpa) taking final investment decision in 2018, this year could see more than 80 mtpa of new projects lining up for sanctioning.

DOWNSTREAM

Oil price volatility is expected to persist in 2019. The price trajectory will be shaped by OPEC's decision to curtail production growth by 1.2 million barrels per day (bpd) effective January in the Non-OPEC countries, particularly the US, and global markets.

Global oil demand is expected to grow by 1.4 million bpd in 2019 to 100.6 million bpd, supported by sustained robust demand in the Asia Pacific region.

Within OPEC, Libya and Venezuela pose supply-side risks due to the possibility of production falling or rising sharply amidst changes in the political climate.

However, any price gains could be tempered by higher US tight oil production by the US.

Global capacity for petrochemicals may **grow by**
3.8% to
185 mtpa.
About 95% of the growth will come from North America and Asia Pacific

PETROCHEMICALS

Global ethylene demand is expected to continue growing at a steady pace in 2019 in tandem with global economic growth.

Global consumption of ethylene, a major building block for petrochemicals, is likely to grow 3.7 per cent to 166.1 mtpa, driven by growth in Asia Pacific, North America, and the Middle East.

Global capacity is expected to grow by 3.8 per cent to 185 mtpa. About 95 per cent of the growth will come from North America and Asia Pacific.

The US will boost its position as the world's key petrochemicals player, driven by abundant and competitively-priced gas feedstock.

The country will emerge as an important global supplier of ethylene and polyethylene, with 6.5 mtpa of capacity coming onstream in 2019, accounting for 55 per cent of new global capacity.

ENERGY AND ENVIRONMENT

Global primary energy demand is anticipated to increase at a slower pace of 1.5 per cent on the back of higher energy efficiency in the industrial, residential and commercial market segments.

The rising use of fuel-saving technologies in vehicles will lead to marginal demand growth in the transport sector.

Decarbonisation efforts are underway, enabled by a proliferation of large-scale renewables auctions particularly in the Middle East, Africa, and Asia Pacific regions.

Energy storage will be a core component for many renewables power projects, as both utility-scale and domestic energy storage solutions become more competitive.

New digital applications are emerging across the electricity value chain, such as peer-to-peer renewables power trading or paying for EV charging through blockchain technology.

These innovations enable the energy sector to have new business and revenue models based on integrated data and platform analytics, with increased participation from traditional oil and gas players.

SECTION

4

COMMITTED TO GOVERNANCE

Contents

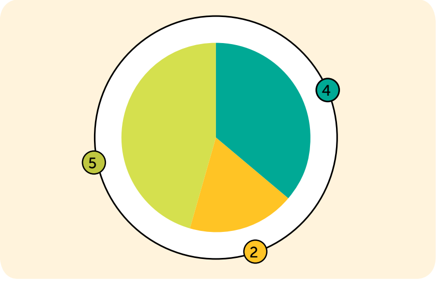
In this section, we set out how PETRONAS approaches governance and demonstrate how various components and practices work to strengthen and ensure effective corporate governance.

DIVERSITY IN BOARD COMPOSITION

Whilst traditional diversity criteria, such as gender and independence are important, we also value diversity of skills, experience, knowledge, and thinking styles.

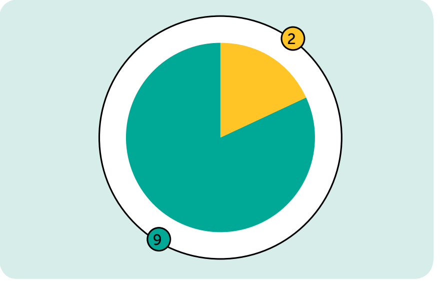
DIVERSITY AND TENURE*

BOARD COMPOSITION



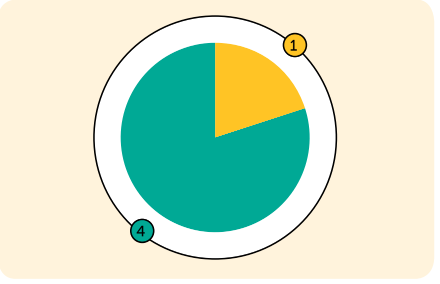
Executive Director	2
Independent Non-Executive Director	5
Non-Independent Non-Executive Director	4

GENDER DIVERSITY



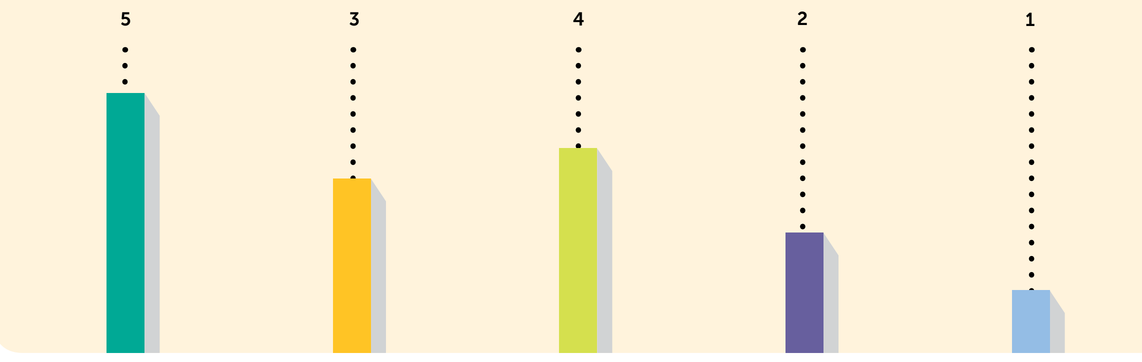
Female	2
Male	9

TENURE OF INDEPENDENT NON-EXECUTIVE DIRECTORS



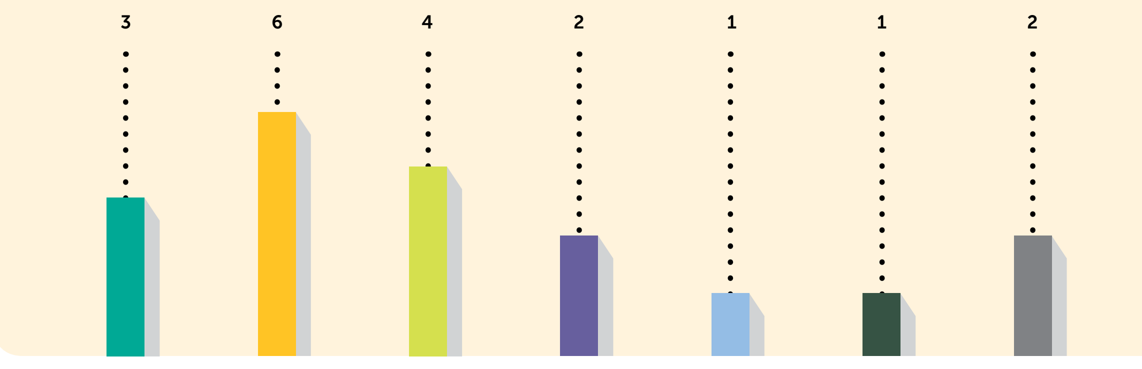
0-5 Years	1
6-8 Years	4

EXPERIENCES*#



- Oil & Gas
- Public Sector
- Banking
- Property
- Consultancy

SKILLS*#



- Engineering/Technical/Operations
- Finance/Audit
- Economist
- Communication/Marketing
- Human Resource
- Reputation/Branding/Communication
- Strategist/Analyst

Note
* As at 31 December 2018
\# A Director may have more than one experience and skill

BOARD OF DIRECTORS

MEMBERS OF THE BOARD

Age
63

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
1 August 2018

DATUK AHMAD NIZAM SALLEH
Chairman of the PETRONAS Board

Board Meeting Attendance
6/6

EDUCATION
- Bachelor of Business Administration, Ohio University, United States of America
- Advanced Management Programme, Wharton School, University of Pennsylvania, United States of America

SKILLS & EXPERIENCE
- Joined PETRONAS in 1981.
- Held various positions including analyst, planner and project coordinator in corporate planning and finance functions within PETRONAS' Corporate Head Office from 1981 to 1987.
- Other key positions previously held within the Group:
  - o Head Project, Tender and Contract Division
  - o Deputy Project Director of LNG 2 Project
  - o Executive Assistant to the President/Chief Executive Officer
  - o Senior General Manager, Crude Oil Group
  - o Senior General Manager, Group Treasury
  - o Managing Director/Chief Executive Officer of Malaysia LNG Group of Companies
  - o Vice President, Corporate Services Division
  - o Managing Director/Chief Executive Officer of Engen Ltd, South Africa
  - o Member of the PETRONAS Management Committee
  - o Chairman of the PETRONAS Central Tender Committee
  - o Chairman of the PETRONAS Risk Management Council
  - o PETRONAS representative on the Boards of MISC Berhad, Putrajaya Holdings Berhad, Bintulu Port Holdings Berhad and other PETRONAS subsidiaries

OTHER CURRENT APPOINTMENTS
- Chairman of Yayasan PETRONAS
- Chairman of KLCC Property Holdings Bhd
- Chairman of KLCC (Holdings) Sdn Bhd
- Chairman of KLCC REIT Management Sdn Bhd
- Pro-Chancellor, Universiti Teknologi PETRONAS
- Director, Universiti Malaysia Terengganu

Age
58

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
1 August 2007

TAN SRI WAN ZULKIFLEE WAN ARIFFIN
Executive Director
President and Group Chief Executive Officer

Board Meeting Attendance
13/14

EDUCATION
- Bachelor of Engineering, University of Adelaide, Australia
- Senior Management Development Programme, INSEAD
- Advanced Management Programme, Harvard Business School
- Honourary Fellowship, Institution of Chemical Engineers, United Kingdom

SKILLS & EXPERIENCE
- Joined PETRONAS as a Process Engineer in 1983.
- Other key positions previously held within the Group:
  - o Executive Assistant to the President
  - o General Manager, International Projects Management Division of OGP Technical Services
  - o General Manager, Strategy and Business Development Unit
  - o Managing Director and Chief Executive Officer (PETRONAS Gas Berhad)
  - o Vice President of Gas Business
  - o Executive Vice President and Chief Executive Officer for Downstream Business
  - o Chairman (PETRONAS Chemicals Group Berhad)
  - o Chairman (PETRONAS Dagangan Berhad)
  - o Chief Operating Officer, PETRONAS

OTHER CURRENT APPOINTMENTS
- Chairman of the National Trust Fund
- Council Member of the East Coast Economic Region Development Council (ECERDC)
- Chairman of the ECERDC Audit Committee
- Pro-Chancellor of Universiti Teknologi PETRONAS
- Adjunct Professor at the International Islamic University Malaysia (IIUM)
- Member of the Advisory Council for the National Institute of Public Administration (INTAN)
- Member of the Board of Trustees for the Razak School of Government
- Member of the Board of Trustees for the Merdeka Award
- Member of the World Economic Forum (WEF) Oil & Gas Governors Forum
- Member of the WEF Stewardship Board for System Initiatives on Shaping the Future of Energy

C Chairman of Committee A Member of Audit Committee G Member of Governance and Risk Committee R Member of Remuneration Committee

Note: Information correct as at 31 March 2019

BOARD OF DIRECTORS

MEMBERS OF THE BOARD

Age
68

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
21 October 2011

TAN SRI AMIRSHAM A AZIZ
Independent
Non-Executive Director

Board Meeting Attendance
14/14

EDUCATION
- Bachelor of Economics (Honours), University of Malaya, Malaysia
- Malaysian Institute of Certified Public Accountant

SKILLS & EXPERIENCE
- Joined Maybank Group in 1977. Served as Maybank's President and Chief Executive Officer from 1994 to 2008.
- Minister in the Prime Minister's Department in 2008 and supervised the Economic Planning Unit and the Department of Statistics until 2009.
- Chairman of the National Economic Advisory Council from 2009 to 2011.

OTHER CURRENT APPOINTMENTS
- Chairman of RAM Holdings Berhad
- Director of CapitaLand Limited, Singapore
- Chairman of Themed Attractions Resorts & Hotels Sdn Bhd
- Director of Glenealy Plantations Sdn Bhd
- Director of Wearnes-StarChase Limited
- Chairman of PETRONAS Board Governance and Risk Committee

Age
58

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
28 April 2010

TAN SRI MUHAMMAD IBRAHIM
Independent
Non-Executive Director

Board Meeting Attendance
13/14

EDUCATION
- Master in Public Administration, Harvard Kennedy School, Harvard University, United States of America
- Master of Science, International Islamic University Malaysia, Malaysia
- Advanced Management Programme, Harvard Business School, United States of America
- Bachelor of Accounting, University of Malaya, Malaysia
- Postgraduate Diploma, Islamic Banking and Finance, International Islamic University Malaysia, Malaysia

SKILLS & EXPERIENCE
- Joined Bank Negara Malaysia in 1984.
- Previous key positions held in Bank Negara Malaysia:
  - o Governor
  - o Chairman of the Monetary Policy Committee and the Financial Stability Committee
- Areas of expertise include financial markets, foreign exchange, reserve management, payment and settlement systems, banking and insurance.

OTHER CURRENT APPOINTMENTS
- Panel Member of the National Trust Fund
- Malaysian Institute of Accountants
- Fellow of the Asian Institute of Chartered Bankers
- Member of PETRONAS Board Governance and Risk Committee
- Member of PETRONAS Board Remuneration Committee

C Chairman of Committee A Member of Audit Committee G Member of Governance and Risk Committee R Member of Remuneration Committee

Note: Information correct as at 31 March 2019

BOARD OF DIRECTORS

MEMBERS OF THE BOARD

Age
74

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
28 April 2010

DATO' MOHAMAD IDRIS MANSOR
Independent
Non-Executive Director

Board Meeting Attendance
13/14

EDUCATION
- Graduate in Mining Engineering, Camborne School of Mines, University of Exeter, United Kingdom
- Master of Science (Mining Geology and Exploration), University of Leicester, United Kingdom
- Master of Science (Petroleum Engineering), University of Tulsa, United States of America
- Honourary Doctor of Science, University of Exeter, United Kingdom

SKILLS & EXPERIENCE
- Joined PETRONAS in February 1976.
- Other key positions previously held within the Group:
  - o Senior Vice President, Exploration & Production Business
  - o Managing Director and Chief Executive Officer, PETRONAS Carigali Sdn Bhd
  - o Chairman, Energy Africa Ltd, South Africa
  - o Member of the Board, Premier Oil plc, London, United Kingdom
- Other key positions previously held outside the Group:
  - o Advisor on International E&P, PTTEP International of Thailand
  - o Chairman, Society of Petroleum Engineers (SPE), Asia Pacific

OTHER CURRENT APPOINTMENTS
- Member of the Board, PETRONAS Carigali Sdn Bhd
- Member of the Board, PETRONAS International Corporation Limited
- Chairman of PETRONAS Board Audit Committee
- Member of PETRONAS Board Remuneration Committee

Age
69

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
28 April 2010

KRISHNAN A/L CK MENON
Independent
Non-Executive Director

Board Meeting Attendance
12/14

EDUCATION
- Fellow of the Institute of Chartered Accountants in England & Wales
- Member of the Malaysian Institute of Accountants
- Member of the Malaysian Institute of Certified Public Accountants

SKILLS & EXPERIENCE
- Spent 13 years in professional accounting firm Hanafiah Raslan & Mohamad (merged with Ernst & Young in 2002) with seven years as a partner.
- Joined Public Bank Berhad as General Manager in 1989 and was later promoted to Executive Vice President in 1992.
- Joined Putrajaya Holdings Sdn Bhd as Chief Operating Officer from 1997 to 2000.

OTHER CURRENT APPOINTMENTS
- Chairman of Scicom (MSC) Berhad
- Chairman of Econpile Holdings Berhad
- Member of PETRONAS Board Governance and Risk Committee
- Member of PETRONAS Board Audit Committee

C Chairman of Committee A Member of Audit Committee G Member of Governance and Risk Committee R Member of Remuneration Committee

Note: Information correct as at 31 March 2019

BOARD OF DIRECTORS

MEMBERS OF THE BOARD

Age
59

Gender
Male

Nationality
Malaysian

Date Appointed to the Board
15 May 2018

AINUL AZHAR AINUL JAMAL
Independent
Non-Executive Director

Board Meeting Attendance
10/10

EDUCATION
- Bachelor of Electrical Engineering, University of Sussex, United Kingdom
- Advanced Finance, IMD Lausanne, Switzerland
- Emerging Leaders Program, Daniel Business School, University of Denver, Colorado, United States of America

SKILLS & EXPERIENCE
- Joined Schlumberger Limited in 1984. Spent over 32 years with Schlumberger with vast experience in oilfield services and technologies. Held various key positions around the world including:
  - o Managing Director for Malaysia, Brunei, Philippines and Singapore
  - o Reservoir Group HR Director
  - o Treasurer of Schlumberger Foundation
  - o Vice President Global Accounts
  - o Chairman for Asia Pacific
- Held directorships at several private companies and was an Independent Non-Executive Director as well as Chairman of the Risk Committee at a public listed company in Malaysia.

OTHER CURRENT APPOINTMENTS
- Member of the Student Development Advisory Council, Universiti Teknologi PETRONAS, Malaysia
- Chairman of PETRONAS Board Remuneration Committee
- Member of PETRONAS Board Audit Committee

Age
59

Gender
Female

Nationality
Malaysian

Date Appointed to the Board
15 October 2018

DATUK SITI ZAUYAH MD DESA
Non-Independent
Non-Executive Director

Board Meeting Attendance
3/3

EDUCATION
- Master of Business Administration (International Banking), University of Manchester, United Kingdom
- Bachelor of Science (Honours) (Quantity Surveying), University of Reading, United Kingdom
- Diploma in Public Administration, National Institute of Public Administration (INTAN), Malaysia

SKILLS & EXPERIENCE
- Presently the Deputy Secretary General (Policy) for the Ministry of Finance, Malaysia.
- Responsible for the drafting of the Malaysia's National Budget, formulation of taxation and fiscal policies, overseeing economic and international finance policies and issues for the nation, as well as overseeing the Registrar Office of Credit Reporting Agencies and the Tax Tribunals.

OTHER CURRENT APPOINTMENTS
- Deputy Chairman of the National Trust Fund
- Director of Johor Corporation Berhad
- Director of Bank Kerjasama Rakyat Malaysia Berhad
- Director of Bintulu Port Holdings Berhad
- Director of Malaysia Airports Holdings Berhad
- Director of Employees Provident Fund of Malaysia
- Director of Pengurusan Aset Air Berhad
- MARA Council
- Member of PETRONAS Board Audit Committee

C Chairman of Committee A Member of Audit Committee G Member of Governance and Risk Committee R Member of Remuneration Committee

Note: Information correct as at 31 March 2019

BOARD OF DIRECTORS

MEMBERS OF THE BOARD

Age
52
Gender
Female
Nationality
Malaysian
Date Appointed to the Board
15 October 2018

ZAKIAH JAAFAR
Non-Independent Non-Executive Director

Board Meeting Attendance **3/3**

EDUCATION
- Premier Executive Advanced Development Programme, Razak School of Government, Canberra, Australia
- Advanced Management and Leadership Programme, University of Oxford, United Kingdom
- Postgraduate Diploma in Public Administration, National Institute of Public Administration (INTAN), Malaysia
- Master of Social Science (Economics), University of Birmingham, United Kingdom
- Bachelor of Science (Honours) (Economics), University of Warwick, United Kingdom

SKILLS & EXPERIENCE
- Presently the Deputy Secretary General (Macro) of the Ministry of Economic Affairs (MEA).
- Responsible for the preparation of medium and long-term macroeconomic framework for the Malaysian economy and also oversees the policy directions for the manufacturing and services sectors, science & technology and innovation, environment economics as well as knowledge-based economy.

OTHER CURRENT APPOINTMENTS
- Member of the Board of the Malaysia Productivity Corporation
- Member of the Board of Trustee of the Malaysian Institute of Economic Research
- Member of PETRONAS Board Governance and Risk Committee

Age
45
Gender
Male
Nationality
Malaysian
Date Appointed to the Board
15 October 2018

YM TENGKU MUHAMMAD TAUFIK
Executive Director
Executive Vice President and Group Chief Financial Officer

Board Meeting Attendance **3/3**

EDUCATION
- Member of the Institute of Chartered Accountants in England & Wales
- Bachelor of Arts (Honours) (Finance & Accounting), University of Strathclyde, United Kingdom
- Scottish International Foundation, Langside College, United Kingdom
- Member of the Malaysian Institute of Accountants

SKILLS & EXPERIENCE
- Accumulated more than 20 years of experience in the field of finance and business investment.
- Partner at PricewaterhouseCoopers (PwC) Malaysia prior to rejoining PETRONAS.
- Former Chief Financial Officer for two public listed companies, responsible for financial and management reporting, merger and acquisition activities, as well as developing and implementing key stakeholder engagement strategies.
- Experienced in strategic planning investment valuations, developing entry strategies for businesses, and structuring fit-for-purpose funding requirements.
- Areas of expertise include financial reporting, project analysis, feasibility reviews, capital projects structuring and risk management; with primary focus on the oil and gas industry.

OTHER CURRENT APPOINTMENTS
- Member of the Board of MISC Berhad
- Member of the Board of KLCC Property Holdings Berhad

C Chairman of Committee | A Member of Audit Committee | G Member of Governance and Risk Committee | R Member of Remuneration Committee

Note: Information correct as at 31 March 2019

BOARD OF DIRECTORS

COMPANY SECRETARIES

Age
46
Gender
Female
Nationality
Malaysian
Date Appointed
1 June 2018

INTAN SHAFINAS (TUTY) HUSSAIN
Company Secretary

EDUCATION
- Graduate Diploma in Law, University of Western Australia, Australia
- Bachelor of Laws (Honours), University of Leicester, United Kingdom
- Certificate in Legal Practice, Legal Profession Qualifying Board, Malaysia
- Licensed Company Secretary

SKILLS & EXPERIENCE
- Joined PETRONAS in 2001 and has over 18 years of extensive experience in legal, corporate governance and company secretarial matters.
- Currently serves as the Joint Company Secretary of PETRONAS and is the Head of Group Secretarial and Board Governance, Group Legal, PETRONAS.
- Previously served as the Joint Company Secretary of PETRONAS Gas Berhad and the Head of Legal for PETRONAS Gas Berhad.
- Other portfolios held include Legal Counsel of Legal Corporate Services, PETRONAS Chemicals Group Berhad, Corporate Services & Technology as well as Petrochemical Business of PETRONAS.

Age
46
Gender
Female
Nationality
Malaysian
Date Appointed
1 September 2018

HAZLEENA HAMZAH
Company Secretary

EDUCATION
- Bachelor of Laws (Honours), University of Bristol, United Kingdom
- Degree of an Utter Barrister, Lincoln's Inn, United Kingdom
- Master of Business Administration, Middlesex University, United Kingdom
- Licensed Company Secretary

SKILLS & EXPERIENCE
- Joined PETRONAS in 2001 and served in various positions within PETRONAS with exposure in various fields of law.
- Currently serves as the Joint Company Secretary of PETRONAS, Secretary to the PETRONAS Executive Leadership Team and Head of Corporate Secretariat, Group Secretarial and Board Governance, Group Legal, PETRONAS.
- Areas of expertise include legal finance and company secretarial and compliance.

C Chairman of Committee | A Member of Audit Committee | G Member of Governance and Risk Committee | R Member of Remuneration Committee

Note: Information correct as at 31 March 2019

EXECUTIVE LEADERSHIP TEAM (ELT)

MEMBERS OF THE ELT

TAN SRI WAN ZULKIFLEE WAN ARIFFIN
Executive Director
President and Group Chief Executive Officer

Age **58**	**Malaysian**
Appointed on **1 April 2016**	

Refer to page 96.

DATUK MOHD ANUAR TAIB
Executive Vice President and
Chief Executive Officer, Upstream

Age **51**	**Malaysian**
Appointed on **1 April 2016**	

EDUCATION
- Bachelor of Science (Mechanical Engineering), Case Western Reserve University, United States of America
- Master of Business Administration (International Management), Royal Melbourne Institute of Technology University, Australia

SKILLS & EXPERIENCE
- Joined Shell Malaysia in 1990 with exposure in various technical, commercial and leadership roles.
- Joined PETRONAS in 2012.
- Possess almost three decades of experience in the oil and gas field.
- Other key positions currently held within the Group:
  - o Chairman of PETRONAS Gas Berhad
  - o Director of PETRONAS Carigali Sdn Bhd
  - o Director of Progress Energy Canada Ltd
  - o Director of PETRONAS Canada LNG Limited
  - o Director of Pacific NorthWest LNG Ltd
  - o Director of PETRONAS International Corporation Ltd
  - o Director of Malaysia LNG Sdn Bhd
  - o Director of Malaysia LNG Dua Sdn Bhd
  - o Director of Malaysia LNG Tiga Sdn Bhd
  - o Director of PETRONAS LNG 9 Sdn Bhd
  - o Director of PETRONAS LNG Sdn Bhd

OTHER CURRENT APPOINTMENTS
- Chairman of the Society of Petroleum Engineers, Asia Pacific Advisory Council
- Council Member, Masters of Analytical Chemistry Programme for Universiti Putra Malaysia

Note: Information correct as at 31 March 2019

EXECUTIVE LEADERSHIP TEAM (ELT)

MEMBERS OF THE ELT

DATUK MD ARIF MAHMOOD
Executive Vice President and
Chief Executive Officer, Downstream

Age **56**	**Malaysian**
Appointed on **1 April 2016**	

EDUCATION
- Master of Business Administration, Massachusetts Institute of Technology, United States of America
- Bachelor of Science (Summa Cum Laude) (Electrical Engineering), Boston University, United States of America

SKILLS & EXPERIENCE
- Joined PETRONAS in 1984.
- Possess more than 34 years of experience in the oil, gas and petrochemicals industries including various engineering positions and Corporate Strategic Planning.
- Led the acquisition of Canada's Progress Energy Inc in 2012 and established joint venture partnership with Saudi Aramco for Pengerang Integrated Complex.
- Other key positions currently held within the Group:
  - o Chairman of PETRONAS Chemicals Group Berhad
  - o Chairman of BASF-PETRONAS Chemicals Sdn Bhd
  - o Chairman of PETRONAS Dagangan Berhad
  - o Chairman of PETRONAS Marketing International Sdn Bhd
  - o Chairman of Pengerang Petrochemical Company Sdn Bhd (formerly known as PRPC Polymers Sdn Bhd)
  - o Chairman of Pengerang Refining Company Sdn Bhd (formerly known as PRPC Refinery and Cracker Sdn Bhd)
  - o Director of PETRONAS Carigali Sdn Bhd
  - o Director of PETRONAS International Corporation Ltd
  - o Director of PETRONAS Refinery & Petrochemical Corporation Sdn Bhd
  - o Director of Johor Petroleum Development Corporation

OTHER CURRENT APPOINTMENTS
- Member of Universiti Teknologi PETRONAS' Industry Advisory Panel

YM TENGKU MUHAMMAD TAUFIK
Executive Director
Executive Vice President and
Group Chief Financial Officer

Age **45**	**Malaysian**
Appointed on **15 October 2018**	

Refer to page 100.

DATO' RAIHA AZNI ABD RAHMAN
Senior Vice President
Group Human Resource Management

Age **59**	**Malaysian**
Appointed on **16 April 2014**	

EDUCATION
- Bachelor of Business Administration (Marketing), Syracuse University, United States of America

SKILLS & EXPERIENCE
- Joined PETRONAS in 1984.
- Possess more than 34 years of experience in the field of human resource management.
- Other key positions currently held within the Group:
  - o Chairman of Institute of Technology PETRONAS Sdn Bhd
  - o Chairman of PETRONAS Technical Training Sdn Bhd
  - o Director of PETRONAS Management Training Sdn Bhd
  - o Director of PETRONAS Lubricants International Sdn Bhd
  - o Director of Malaysian Maritime Academy Sdn Bhd (till January 2019)
- Other key positions previously held within the Group:
  - o Vice President of Group Human Resource Management (PETRONAS)
  - o Various leadership roles in PETRONAS' Exploration and Production Business; PETRONAS Carigali Sdn Bhd and PETRONAS Gas Bhd

OTHER CURRENT APPOINTMENTS
- Council Member of the Malaysian Employers Federation (MEF)
- Board Member of Human Resources Development Fund (HRDF)
- Member of the Board of Studies for the Master of Human Resource Development Programme, Universiti Putra Malaysia
- Patron of PETRONAS Leading Women Network

Note: Information correct as at 31 March 2019

EXECUTIVE LEADERSHIP TEAM (ELT)

MEMBERS OF THE ELT

MOHAMED FIROUZ ASNAN
Senior Vice President
Corporate Strategy

Age **53** | **Malaysian**
Appointed on **1 July 2017**

EDUCATION
- Bachelor of Science (Civil Engineering), University of Louisiana at Lafayette, United States of America
- Master of Business Administration, Massachusetts Institute of Technology, United States of America
- Member, Board of Engineers, Malaysia
- Member of the Institution of Engineers, Malaysia

SKILLS & EXPERIENCE
- Joined PETRONAS in 1989.
- Possess more than three decades of experience in PETRONAS covering domestic and international operations for Upstream and Downstream businesses, including stints in Corporate Planning and Development Division.
- Other key positions currently held within the Group:
  - Chairman of Kertih Terminal Sdn Bhd
  - Chairman of Board of Trustees of Petroleum Research Fund
  - Director of PETRONAS Carigali Sdn Bhd
  - Director of PETRONAS International Corporation Ltd
  - Director of Pengerang Petrochemical Company Sdn Bhd (fka PRPC Polymers Sdn Bhd)
  - Director of Pengerang Refining Company Sdn Bhd (fka PRPC Refinery and Cracker Sdn Bhd)
  - Director of PETRONAS LNG Sdn Bhd
  - Director of PTV International Ventures Ltd
  - Director of PETRONAS Management Training Sdn Bhd
  - Director of Institute of Technology PETRONAS Sdn Bhd
- Other key positions previously held within the Group:
  - Vice President of Refining & Trading (PETRONAS)
  - Vice President of Oil Business (PETRONAS)
  - Country Chairman of PETRONAS Vietnam
  - Chairman of PETRONAS Sabah and Labuan
  - General Manager of Business Development Unit, Corporate Planning and Development Division (PETRONAS)

OTHER CURRENT APPOINTMENTS
- Director of Malaysian Industry–Government Group for High Technology (MIGHT)
- Director of International Conference and Exhibition Professionals (iCEP)

MAZUIN ISMAIL
Senior Vice President
Project Delivery and Technology

Age **50** | **Malaysian**
Appointed on **16 April 2016**

EDUCATION
- Bachelor of Science (Civil and Structural Engineering), University of Bradford, United Kingdom
- Master of Business Administration, University of Adelaide, Australia

SKILLS & EXPERIENCE
- Joined PETRONAS in 1991.
- Possess more than 27 years of experience in PETRONAS covering project execution and engineering, internal audit, governance, and business development. He has also held leadership roles in petroleum management, strategic planning and change management.
- Other key positions currently held within the Group:
  - Chairman of PETRONAS Research Sdn Bhd (PRSB)
  - Chairman of PETRONAS Technical Services Sdn Bhd
  - Director of Institute of Technology PETRONAS Sdn Bhd
  - Director of UTP FutureTech Sdn Bhd
  - Director of PETRONAS Lubricants International Sdn Bhd
  - Director of PTV International Ventures Ltd
- Other key position previously held within the Group:
  - Vice President of Technical Global (PETRONAS)

OTHER CURRENT APPOINTMENTS
- Nil

MALIKI KAMAL MOHD YASIN
Senior Vice President
Group General Counsel, Group Legal

Age **55** | **Malaysian**
Appointed on **1 June 2017**

EDUCATION
- Bachelor of Law (Honours), International Islamic University Malaysia, Malaysia

SKILLS & EXPERIENCE
- Joined PETRONAS in 1990.
- Possess more than three decades of experience in the legal and company secretarial field.
- Other key positions currently held within the Group:
  - Director of Malaysian Jet Services Sdn Bhd
  - Director of PETRONAS Capital Ltd
  - Director of Energas Insurance (L) Ltd
  - Director of PETRONAS Global Sukuk Ltd
  - Director of PETRONAS Hartabina Sdn Bhd
- Other key positions previously held within the Group:
  - Head of Legal and Corporate Secretariat (PETRONAS Chemicals Group)
  - General Counsel of RAPID Project
  - Head of Legal Finance and Secretariat (PETRONAS)
  - Company Secretary (PETRONAS)
  - Head of Legal for Downstream, Finance and Technology (PETRONAS)

OTHER CURRENT APPOINTMENTS
- Nil

Note: Information correct as at 31 March 2019

CORPORATE GOVERNANCE AT PETRONAS

CORPORATE GOVERNANCE OVERVIEW

PETRONAS' approach to sustainable business is based on the belief that good corporate governance practices drive the creation of sustainable shareholder value. We believe that strong governance is critical in realising the PETRONAS Corporate Sustainability Framework, deliver our growth strategy, and thereby generate lasting value creation.

Hence, PETRONAS continues to uphold the highest standards of corporate governance whilst maintaining accountability and transparency in all business dealings. PETRONAS' continuous commitment in fostering a culture of integrity, ethical behaviour and professionalism underpins its ability to deliver and sustain its performance to meet the challenges of the future.

In safeguarding the Company's integrity and trustworthiness to deliver value, our governance policies and practices are designed to ensure that our business is conducted in a fair, honest, and transparent manner that conforms to the highest ethical standards and best industry practices through the implementation of the Code of Conduct and Business Ethics (CoBE) and business ethics and various compliance programmes.

PETRONAS BOARD GOVERNANCE FRAMEWORK

GOVERNANCE STRUCTURE

The Board recognises that having an established and clearly defined roles and responsibilities of the Board and the Management is important to strike a reasonable balance between the strategy foundation and policy-making on the one hand, and the conformance roles of executive supervision and accountability on the other.

Delegation of the Board's authority to the Management is subject to defined limits of authority and monitoring by the Board. However, as the Board has the overall responsibility to manage and supervise the affairs of the Company in accordance with the law, there are matters which are reserved for the Board's consideration as set out in the Board Charter.

Matters reserved for the Board include, amongst others, strategy and management matters, such as long-term objectives and strategy of the Company, policies, annual budgets, major investment decisions on matters such as capital projects, mergers and acquisition, as well as matters relating to funding requirements. It also includes financial, governance and risk matters, such as financial reporting and control, and enterprise risk management. Corporate matters such as reputation and stakeholder management, HSE, Board and Board committee membership, Directors' remuneration and succession planning are also amongst the items for the Board's consideration.

There is a clear separation of the positions and roles between the Chairman and the President and Group Chief Executive Officer (CEO) to promote greater accountability to enhance check and balance. The positions of the Chairman and the President and Group CEO are held by two different individuals. The roles of the Chairman as well as the President and Group CEO are also described in the Board Charter.

The Chairman provides leadership and guidance to the Board to enable members to make considered decisions on all Board reserved matters. His roles, amongst others, are to facilitate the meeting process and ensure that the Board and its Committees function effectively including providing guidance on governance. The Chairman sets the agenda for the meeting in accordance with the Board Charter and together with the Company Secretary, ensures that the Board members receive regular and timely information regarding the Company prior to Board meetings. Board members also have access to the Company Secretary for any further information they may require.

HOW WE EMBRACE BEST GOVERNANCE PRACTICES

1. The Board allocates sufficient time to deliberate on PETRONAS' Three-Pronged Strategy.
2. The roles and responsibilities of Directors are stipulated in the Board Charter.
3. The positions of the Chairman and the President and Group CEO are held by two different individuals.

CORPORATE GOVERNANCE AT PETRONAS

BOARD

Our Board is collectively responsible for the effective oversight of the Company and its businesses. It determines the Company's strategic direction and objectives, business plan, viability, and governance structure that will help achieve PETRONAS' strategic growth and deliver sustainable shareholder value.

The Board sets the risk appetite and determines the principal risks for the Company and takes the lead in areas such as safeguarding the reputation of the Company and its financial policy, as well as making sure we maintain a sound system of internal control and risk management.

BOARD AUDIT COMMITTEE

The Board Audit Committee assists the Board in fulfilling its oversight functions in relation to internal controls and financial reporting of the Company. The Committee provides the Board with assurance on the quality and reliability of the financial information reported by the Company whilst promoting efficiency and good governance practices to ensure the proper conduct and safeguarding of PETRONAS' assets.

BOARD GOVERNANCE AND RISK COMMITTEE

The Board Governance and Risk Committee is responsible for assessing the performance of the Board, as well as identifying, nominating, and orientating new Directors. The Committee also reviews the policies, practices, and principal risks, and oversees the adequacy and effectiveness of the risk assessment and risk management system to monitor risks in the PETRONAS Group.

The Committee also continues to review and recommend to the Board the appropriate corporate governance policies and procedures in accordance with international governance and best practices and monitors the Company's compliance with laws and good governance standards.

BOARD REMUNERATION COMMITTEE

The Board Remuneration Committee was established to assist the Board in discharging its responsibilities in the determination of the remuneration and compensation of the Directors and Top Management of the Company. The Committee recommends to the Board the remuneration policy for the Non-Executive Directors and Top Management of the Company. The Committee also reviews the President and Group CEO's Performance Scorecard, and recommends the rating of the scorecard to the Board for its approval.

The Committee also oversees the development of a succession management plan for the President and Group CEO and Top Management as well as Top Management's appointments/renewals.

PRESIDENT AND GROUP CHIEF EXECUTIVE OFFICER (CEO)

The President and Group CEO leads the management of the Company and provides direction for the implementation of the strategies and business plans as approved by the Board and the overall management of the business operations group-wide. The President and Group CEO also chairs the Executive Leadership Team which assists him in his management of PETRONAS, particularly in relation to strategic business development, high impact and high value investments, and cross-business matters of the PETRONAS Group.

EXECUTIVE LEADERSHIP TEAM

CORPORATE GOVERNANCE AT PETRONAS

BOARD COMPOSITION

The successful delivery of our growth strategy depends upon attracting and retaining the right talent. This starts with having a high-quality Board. Balance is an important requirement for the composition of the Board, not only in terms of the number of Executive and Non-Executive Directors, but also in terms of expertise, diversity and backgrounds.

PETRONAS Board comprises two Executive Directors and eight Non-Executive Directors, with five Independent Non-Executive Directors and three Non-Independent Non-Executive Directors, whose diverse skills and experience are vital to constructive challenge and debate, and for the robust scrutiny of management performance and proposals.*

Whilst traditional diversity criteria such as gender and independence are important, we also value diversity of skills, experience, knowledge and thinking styles. PETRONAS has in place the PETRONAS Board Selection Criteria and Guiding Principles on the Appointment/Re-appointment of Directors to ensure the Board is refreshed timely and with the right composition. PETRONAS has in the past and present, been represented by women directors on its Board.

Additionally, the Company has also established the Independent Directors' Guidelines (Guidelines) whereby the Independent Directors' Review is part of an annual exercise. The Guidelines govern amongst others, the tenure of Independent Non-Executive Directors and the criteria for Independent Directors. Annually, the Company undertakes a two-tier assessment to measure the independence of the Independent Non-Executive Directors.

HOW WE EMBRACE BEST GOVERNANCE PRACTICES

1. PETRONAS has established the PETRONAS Board Selection Criteria and Guiding Principles on Appointment/ Re-appointment of Directors as well as the Independent Directors' Guidelines.
2. PETRONAS carries out an annual Independent Directors' Review via a two-tier assessment to measure independence of its Independent Non-Executive Directors.
3. Non-Executive Directors meet regularly without the presence of Executive Directors.
4. PETRONAS has adopted a Board Diversity Policy where PETRONAS will continue to include diversity in its selection and appointment of Directors.

* As at 31 March 2019

CORPORATE GOVERNANCE
AT PETRONAS

BOARD ATTENDANCE FOR 2018 *Directors as at 31 December 2018*	DESIGNATION	TOTAL ATTENDANCE	
Datuk Ahmad Nizam Salleh *Appointed wef 1 August 2018*	Chairman	100%	6/6
Tan Sri Wan Zulkiflee Wan Ariffin	Executive Director President and Group CEO	93%	13/14
Tan Sri Amirsham A Aziz	Independent Non-Executive Director	100%	14/14
Tan Sri Muhammad Ibrahim	Independent Non-Executive Director	93%	13/14
Dato' Mohamad Idris Mansor	Independent Non-Executive Director	93%	13/14
Krishnan a/l CK Menon	Independent Non-Executive Director	86%	12/14
Datuk Pengiran Hassanel Datuk Pengiran Haji Mohd Tahir*	Non-Independent Non-Executive Director	50%	7/14
Ainul Azhar Ainul Jamal *Appointed wef 15 May 2018*	Independent Non-Executive Director	100%	10/10
Datuk Siti Zauyah Md Desa *Appointed wef 15 October 2018*	Non-Independent Non-Executive Director	100%	3/3
Zakiah Jaafar *Appointed wef 15 October 2018*	Non-Independent Non-Executive Director	100%	3/3
Tengku Muhammad Taufik *Appointed wef 15 October 2018*	Executive Director Executive Vice President and Group Chief Financial Officer	100%	3/3
Directors who have resigned during 2018			
Tan Sri Mohd Sidek Hassan *Resigned wef 30 June 2018*	Chairman	100%	7/7
Tan Sri Dr Mohd Irwan Serigar Abdullah *Resigned wef 23 May 2018*	Non-Independent Non-Executive Director	17%	1/6
Dato' Khodijah Abdullah *Resigned wef 23 May 2018*	Non-Independent Non-Executive Director	67%	4/6
Tan Sri Zarinah Anwar *Resigned wef 12 September 2018*	Independent Non-Executive Director	100%	10/10
Dato' Sri Sharifah Sofianny Syed Hussain *Resigned wef 30 September 2018*	Independent Non-Executive Director	100%	10/10
Datuk Mohd Omar Mustapha *Resigned wef 30 June 2018*	Independent Non-Executive Director	100%	7/7
Tan Sri Datuk Amar Haji Mohamad Morshidi Abdul Ghani *Resigned wef 18 June 2018*	Non-Independent Non-Executive Director	29%	2/7
Datuk Manharlal Ratilal *Resigned wef 15 October 2018*	Executive Director	100%	11/11

* *Resigned wef 1 January 2019*

CORPORATE GOVERNANCE
AT PETRONAS

OUR BOARD AND ITS COMMITTEES

In order for the Board to operate efficiently and give the right level of attention and consideration to relevant matters, the Board Committees assist the Board in fulfilling its oversight functions. The Board Committees' agendas and schedules of items to be discussed at their meetings are prepared in accordance with the terms of reference of each Board Committee and take account other topical and ad-hoc matters. In addition to the vertical lines of reporting, the Board Committees communicate and work together where required. The Chairmen of the Board Committees meet annually to review the roles and responsibilities of each Board Committee to facilitate appropriate coordination.

At the Board Committees' meetings, items are discussed and, as appropriate, endorsed, approved or recommended to the Board for approval. Following the Board Committees' meetings, the Chairman of each Board Committee provides the Board with a summary of the main decisions and discussion points, and the minutes of the Board Committees' meetings are presented to the Board for notation hence, the non-committee members are kept up-to-date with the work undertaken by each Board Committee.

BOARD AUDIT COMMITTEE

The Board Audit Committee comprises entirely of Non-Executive Directors. In FY2018, the Board Audit Committee convened 10 times. The Committee deliberated, amongst others, audited and quarterly financial results, adoption of Malaysian Financial Accounting Standards 9, 15 and 16, internal audit reports, risk-based annual audit plan and budget, assessment on the performance of Group Chief Audit Executive as well as external audit plan and audit reports.

Member	Total Attendance	
Dato' Mohamad Idris Mansor *Chairman*	100%	10/10
Krishnan a/l CK Menon	80%	8/10
Ainul Azhar Ainul Jamal *Appointed wef 11 October 2018*	67%	2/3
Datuk Siti Zauyah Md Desa *Appointed wef 24 October 2018*	100%	3/3
Tan Sri Dr Mohd Irwan Serigar Abdullah *Resigned wef 20 February 2018*	0%	0/1
Tan Sri Zarinah Anwar *Resigned wef 12 September 2018*	100%	6/6
Dato' Sri Sharifah Sofianny Syed Hussain *Resigned wef 30 September 2018*	100%	7/7

BOARD GOVERNANCE AND RISK COMMITTEE

The Board Governance and Risk Committee comprises entirely of Non-Executive Directors. The Committee has access to the Legal Compliance Department which promotes a structured, consistent and centrally-driven integrated approach to global governance and compliance for the PETRONAS Group. In FY2018, the Committee met a total of five times. The Committee deliberated amongst others, PETRONAS risk appetite, PETRONAS Independent Non-Executive Directors' tenure, market deregulation readiness, and PETRONAS' corporate privacy policy.

Member	Total Attendance	
Tan Sri Amirsham A Aziz *Chairman*	100%	5/5
Tan Sri Muhammad Ibrahim	100%	5/5
Krishnan a/l CK Menon	100%	5/5
Zakiah Jaafar *Appointed wef 24 October 2018*	100%	1/1

CORPORATE GOVERNANCE AT PETRONAS

BOARD REMUNERATION COMMITTEE

The Board Remuneration Committee comprises entirely of Non-Executive Directors. In 2018, the Committee met a total of four times. The Committee deliberated amongst others, renewal and appointment of Top Management and their remuneration, President Scorecard for FY2017, FY2018 and his remuneration package, and tax treatment on Directors' remuneration.

Member	Total Attendance	
Ainul Azhar Ainul Jamal *Chairman* *Appointed wef 11 October 2018*	100%	1/1
Tan Sri Muhammad Ibrahim *Appointed wef 24 October 2018*	0%	0/1
Dato' Mohamad Idris Mansor	50%	2/4
Tan Sri Zarinah Anwar *Resigned wef 12 September 2018*	75%	3/4
Dato' Sri Sharifah Sofianny Syed Hussain *Resigned wef 30 September 2018*	75%	3/4
Datuk Mohd Omar Mustapha *Resigned wef 30 June 2018*	75%	3/4

HOW WE EMBRACE BEST GOVERNANCE PRACTICES

1. PETRONAS has in place the PETRONAS Non-Executive Directors Remuneration Guidelines and Package.
2. The Board is refreshed timely, and in 2018, PETRONAS welcomed four new Directors.
3. PETRONAS has established the Board Governance & Risk Committee since 2010, which comprises a majority of Independent Non-Executive Directors to review policies, practices, and principal risks, and oversees the adequacy and effectiveness of the risk assessment and risk management system to monitor risks in the PETRONAS Group.
4. PETRONAS has adopted the Framework on External Auditors which require the Board Audit Committee to assess and monitor the performances, suitability, objectivity, and independence of the external auditors.

DIRECTOR'S CONTINUOUS DEVELOPMENT AND ONBOARDING

Director's Continuous Development

As our internal and external business landscapes change, it is important to make sure that Directors' skills and knowledge are refreshed and updated regularly. To strengthen Directors' knowledge and understanding of the Company's businesses, Board meetings would include updates and briefings on specific aspects of the Company's activities and business trends. Updates on corporate governance and regulatory matters are also provided at Board meetings.

PETRONAS has developed the PETRONAS Board Excellence programme, a structured training programme for PETRONAS Directors group-wide. This suite of programmes aims to provide a structured development for Directors through the creation of platforms for insightful knowledge exchange, sharing of experiences, and harnessing skills for board effectiveness. The PETRONAS Board Excellence programme focuses on specific topics to elevate Directors' knowledge and skills on the best practices on Board effectiveness. For 2018, PETRONAS organised four programmes attended by 60 PETRONAS Directors group-wide.

Site visits to plants located worldwide are also part of the Directors' training. In 2018, the PETRONAS Board had two site visits.

CORPORATE GOVERNANCE AT PETRONAS

Director's Onboarding

New appointments to the Board attended a comprehensive induction programme co-ordinated by the Company Secretary. In FY2018, two onboarding programmes were held for four newly appointed PETRONAS Directors.

Each newly appointed Director is taken through a one-day onboarding programme which covers the following:

PETRONAS Governance Framework
- The establishment of PETRONAS
- PETRONAS Board Governance Structure
- PETRONAS Board of Directors
- Directors' Duties and Responsibilities
- Companies Act, 2016
- PETRONAS Board Committees
- Executive Leadership Team
- Board Process and Meeting Administration
- Board and Management
- Directors' Training
- Principles of Directorship
- Business Ethics and Compliance

PETRONAS Corporate Overview
- Corporate Agenda
- Company Overview
- Transformation Journey
- Management Team

Risk Management in PETRONAS
- Foundation of Risk Management
- Application of Risk Management
- Governance Structure of Risk Management
- Attestation of Risk Management Practices
- PETRONAS Corporate Risk Profile
- PETRONAS Risk Appetite

BOARD EFFECTIVENESS EVALUATION

PETRONAS undertakes a formal evaluation exercise annually to assess the effectiveness of its Board as a whole and the various Board Committees and contribution of each individual Directors.

The Board Effectiveness Evaluation for FY2018 was conducted by an independent external consultant who had assessed the following:

Board as a Whole	Board Committees	Directors' Self-Evaluation and Directors' Peer Review

The evaluation also includes the Directors individual culture diagnostic, which is a comprehensive approach to assessing cultural alignment in the boardroom and a sense of the group dynamics when all the individual style profiles of Directors are compared to each other.

THE SCOPE OF THE EVALUATION

Board's overall performance and corporate governance in terms of practices and policies

i. An in-depth evaluation of the Board including Board Committees and its Directors with an intent to recommend enhancements (if any) based on insights gained. This includes but is not limited to a study of the Board Charter and the Board Committees' terms of reference, composition, meeting calendar and agenda.
ii. Benchmarking PETRONAS' Board against selected boards, international trends and/or best practices (up to five companies) that are relevant to the PETRONAS context.

Directors' individual contribution evaluation

i. Inclusion of wide ranging one-on-one interviews against agreed competencies including 360° feedback for one another and involving select senior management's feedback on the performance of the Board/Committees/Directors.
ii. Inclusion of each Director's self-evaluation in terms of performance on the Board.

Directors' individual culture diagnostic

i. Comprehensive approach to assessing cultural alignment in the boardroom.
ii. A sense of the Group dynamic when all the Directors' individual style profiles are compared to each other.

CORPORATE GOVERNANCE
AT PETRONAS

THE EVALUATION PROCESS

The assessments were carried out through a combination of individual meetings with the Directors and questionnaires.

A total of four sets of questionnaires were used in conversations with 13 individual Directors. The following questionnaires were customised for the PETRONAS Directors:

i. Board and Board Committees Evaluation Form
ii. Director Self-Evaluation Form
iii. Individual Director Peer Review Form
iv. Individual Style Profile (ISP) Survey (online)

Quantitative and qualitative data from the interviews, questionnaires, and surveys were analysed and reported by the consultant to the Board Governance and Risk Committee and the Board respectively.

THE KEY FINDINGS

The quantitative survey and one-on-one interviews indicate that overall, PETRONAS has a high-performing Board.

Key themes consistently highlighted by the Directors:

i. The Board is well run, with a highly respected Chairman who facilitates healthy discussions and encourages each Director to speak his/her mind; the overall interactions and tone amongst the Directors are collegial.
ii. The Directors engage in substantive debate and also challenge the Management in a constructive way.
iii. There is good chemistry and an emerging sense of camaraderie and respect amongst the Directors including in their relationship with the Management.

PETRONAS compares favourably with a basket of five world-class companies which adopt European governance codes.

HOW WE EMBRACE BEST GOVERNANCE PRACTICES

1

In 2018, the Board assessment was carried out by an independent external consultant where the findings were reported to the Board.

CONFLICT OF INTEREST

In ensuring transparency and integrity of decision-making as well as to prevent any conflict of interest, a declaration of interest by Directors at the start of the meeting is fixed as an agenda item of the Board meeting. In this regard, the Directors acknowledge that they shall immediately disclose the nature and extent of their interest and abstain from participating in any discussion or voting on any proposal in which they have an interest. Such matters are recorded in the minutes of the Board meetings.

The Company also disseminates the approved disclosure forms annually to ensure the Directors update their disclosures pursuant to the Companies Act 2016 and the CoBE. The Company also maintains the Directors Register of Interest pursuant to the above requirements.

Apart from the above, the Directors are required to declare their interests annually, in line with the requirements on the disclosure of Director's interest in the Company's Audited Financial Statements.

PETRONAS Directors also submit declaration of assets periodically.

CORPORATE GOVERNANCE
AT PETRONAS

RE-ELECTION AND RE-APPOINTMENT OF DIRECTORS

In accordance with Article 71(1) of the Company's Constitution, at least one-third of the Directors shall retire from office by rotation at each Annual General Meeting (AGM) but shall be eligible for re-election. This retirement by rotation shall only be applicable to all Non-Executive Directors except the Chairman.

In light of the above, at the 2019 annual general meeting which will be held on 30 May 2019, one Director will retire pursuant to Article 71(1) of the Company's Constitution.

In accordance with Article 68 of the Company's Constitution which requires newly appointed Directors to hold office until the following AGM, five Directors will retire at the 2019 AGM pursuant to Article 68 of the Company's Constitution.

The shareholders at the AGM shall have the right to re-appoint these Directors.

QUALIFIED AND COMPETENT COMPANY SECRETARIES

The Company has two Company Secretaries. The Company Secretaries are qualified to act as Company Secretaries pursuant to Section 235 of the Companies Act 2016. Both have legal qualifications and are licensed by the Companies Commission of Malaysia. They act as advisors to the Board, particularly with regard to the Constitution of the Company, board policies and procedures and its compliance with regulatory requirements, rules and legislations as well as corporate governance matters and its best practices.

The Company Secretaries ensure that discussions and deliberations at the Board and Board Committees are well documented and subsequently communicated to the relevant Management for appropriate actions.

The Company Secretaries constantly keep themselves abreast with regulatory changes, development in corporate governance, evolution of Company Secretaries role as well as business trends through continuous training.

PETRONAS also has in place the Professional Development Manual for Group Legal which emphasises on company law and company secretarial practices. In 2018, the Inaugural Company Secretary Conference was held to upskill the Company Secretaries and uplift the stature and brand of Company Secretaries' in the PETRONAS Group.

BUSINESS ETHICS AND COMPLIANCE

Our group-wide policies are guided by and comply with all applicable laws and regulations. Additionally, we regularly benchmark our policies and procedures against prevailing international standards as we believe it is essential for the organisation to adopt industry best practices in corporate governance given PETRONAS' strong global presence and our commitment to adhere to the highest level of governance.

COMMITMENT TO INTEGRITY

- CODE OF CONDUCT AND BUSINESS ETHICS
- ANTI-BRIBERY AND CORRUPTION COMPLIANCE PROGRAMME
- WHISTLEBLOWING POLICY AND PROCEDURES
- COMPETITION LAW COMPLIANCE PROGRAMME
- HUMAN RIGHTS COMPLIANCE PROGRAMME
- PETRONAS RAID PROTOCOL
- INTERNATIONAL ECONOMIC SANCTIONS AND EXPORT-CONTROL COMPLIANCE PROGRAMME
- PERSONAL DATA PROTECTION COMPLIANCE PROGRAMME

CORPORATE GOVERNANCE AT PETRONAS

COMPLIANCE

How we have strengthened this during the year

Establishment of the Legal Compliance Department (LCD) under Group Legal

The Corporate Governance and International Compliance Unit under Group Legal has been restructured and formalised as Legal Compliance Department (LCD), made effective on 1 May 2018. The newly organised LCD has a well-defined compliance structure in place and increased resources to promote compliance with critical laws that may affect the PETRONAS Group. These critical laws are international laws with extra-territorial effect that could result in high civil and criminal penalties and severe reputational impact to the enterprise, such as ethics and integrity, competition law, data protection, sanctions, and export controls. PETRONAS has also appointed a new Chief Compliance Officer who leads the LCD team.

Communications and Training Programmes

Various training programmes and communications have been conducted on the critical laws, amongst others 11 for Personal Data Protection, three on Sanctions & Export Control, three on Competition, and 72 on Business Ethics and Compliance.

Compliance State of Assessment Exercise

In order to understand the PETRONAS Group's legal compliance priorities, LCD commenced a compliance state of assessment exercise focusing on 26 pilot OPUs/HCUs that are representative of PETRONAS Group's business activities. The result of the compliance state of assessment for PETRONAS Group together with recommended next steps was presented and approved at Executive Leadership Team on 11 October 2018. These findings are used to develop a Legal Compliance Framework which will govern the implementation of the legal compliance controls within PETRONAS Group in 2019.

Code of Conduct and Business Ethics (CoBE)

2018 saw the continuous efforts of PETRONAS in rebranding its CoBE, to sport a fresh new look, yet with increased emphasis on integrity at work. It will continue to apply to every employee, officer and director of the PETRONAS Group of Companies, whilst joint venture companies are encouraged to adopt the CoBE. Contractors, agents, outsourced workers and business associates are required to always act consistently with applicable parts of CoBE when dealing with, acting on behalf or in the name of the PETRONAS Group. The CoBE shall continue to be the bastion, embodying principles, directions and broad guidance, as well as our expectations, to help in the exercise of best judgment, always in the best interest of PETRONAS.

As a leading multinational company of choice, PETRONAS values loyalty, integrity, professionalism and cohesiveness, which our employees, officers, directors and stakeholders subscribe to. We have zero tolerance for unlawful or unethical activities, in all forms. Organisational effectiveness is central to our long-term business competitiveness, and our Shared Values of loyalty, integrity, professionalism and cohesiveness are the cornerstone of our business.

PETRONAS has communicated the CoBE to all employees through a series of training programmes, including its onboarding programme for new executives. For the year 2018, a total number of 6,769 employees have undergone face-to-face training, refresher training, and onboarding training on the CoBE.

"Ask The CoBE"

A helpdesk cobe@petronas.com was created to answer queries from employees, third parties and members of the public on matters related to the CoBE and to ensure better understanding of the code. Since its inception, the CoBE helpdesk has received and responded to various queries raised by employees, third parties and the public on issues related to the CoBE.

The CoBE documents are available on PETRONAS' corporate website at https://www.petronas.com/sustainability/governance-and-ethics

CORPORATE GOVERNANCE AT PETRONAS

ANTI-BRIBERY AND ANTI-CORRUPTION COMPLIANCE PROGRAMME (ABC)

In maintaining a corrupt-free business environment within the PETRONAS Group of Companies, a high level of awareness amongst the employees and external stakeholders of anti-bribery and corruption risks remain pivotal.

Continuous evolution of training programmes and delivery of impactful integrity initiatives are high on the agenda, which saw delivery of comprehensive and structured training modules for targeted staff of PETRONAS and other employees who carry out integrity functions respectively.

In educating and creating awareness on the recently amended Malaysian Anti-Corruption Commission (MACC) Act specifically on corporate liability, additional trainings and awareness programmes have been introduced. To complement its certification for the SIRIM ISO 37001 Anti-Bribery Management System (ABMS), various adequate procedures are also positioned, to ensure PETRONAS' readiness to combat corruption and wrongdoings effectively.

Effectiveness of the programmes are continuously assessed, including conducting the PETRONAS' group-wide Integrity Survey in December 2018.

PETRONAS' efforts and commitment in implementing best practices and integrity in its day-to-day operations and business transactions are acknowledged and recognised by independent international parties. PETRONAS has been ranked as the most transparent company in the emerging market, under the oil, gas and energy industry category by anti-corruption watchdog Transparency International (TI) in its Transparency in Corporate Reporting (TRAC) Report.

PETRONAS has also obtained the International Organization for Standardization 370001 on Anti-Bribery Management System (ISO 37001) certification upon satisfaction of requirements with respect to anti-bribery management system for corporate services, covering integrity and compliance processes, procurement, registration of suppliers, investment, project management, and corporate hospitality management.

This certification validates PETRONAS' strategy in implementing global best practices to combat bribery and corruption. The certification also evidences PETRONAS' commitment to anti-bribery and anti-corruption in a verifiable way and is a testament of PETRONAS' strong commitment towards zero tolerance to bribery and corruption.

PETRONAS also participated in the Anti-Corruption Summit 2018 organised by Aram Global Sdn Bhd and Transparency International as the main exhibitor on 30 October 2018. The summit which saw participation from both private and public sectors became a conducive platform for PETRONAS and its peers to ensure anti-corruption efforts become an integral part of their corporate culture at all levels.

Third Parties Working with the Company

PETRONAS' dealings with third parties must be carried out in compliance with all relevant laws and consistent with the values and principles of the CoBE and ABC Manual. As part of this commitment, all forms of bribery and corruption are unacceptable and will not be tolerated. As such, PETRONAS is resolved to ensuring its contractors, vendors and joint venture partners comply with the standards of behaviour set out in the CoBE and ABC Manual to ensure the highest level of integrity is observed and practiced. To this end, 10 Vendor Integrity Programmes that were conducted in 2017 were attended by 1,382 companies.

To further achieve this objective, we have enhanced and strengthened our third party due diligence process and controls to ensure our third parties including our contractors, vendors and joint venture partners meet our standards of integrity through amongst others, the use of know-your-customer (KYC) forms, incorporation of standard compliance clauses in contracts, online third party due diligence screening to assess integrity risks and compliance to critical laws when dealing with third parties.

For employees and third parties anti-corruption fraternities, the following education and communication programmes have been conducted:

72 Integrity Programmes for 5,713 employees
27 Integrity Programmes for 1,597 PETRONAS vendors/dealers and 2,476 from other anti-corruption fraternities i.e. Selangor State Government, Bank Negara Malaysia, Malaysian Anti-Corruption Academy, SIRIM Berhad, PKNS, UiTM etc

CORPORATE GOVERNANCE AT PETRONAS

Integrity risk prevention's strategy and plans are further rigorously managed through strategic communication, collaboration and engagements with internal and external stakeholders.

The ABC Manual is available on PETRONAS' corporate website at https://www.petronas.com/ws/sites/default/files/downloads/sustainability-pet-abc-manual.pdf.

PETRONAS WHISTLEBLOWING POLICY AND PROCEDURES

Pursuant to its increased efforts to combat corruption and wrongdoings, PETRONAS continues to encourage disclosures to its secure, confidential and accessible whistleblowing channels, which are operated with the highest standards of integrity and accountability.

The Whistleblowing Policy applies to every employee, officer, and director of PETRONAS. Joint venture companies in which PETRONAS is not a controlling stakeholder and associate companies of PETRONAS are encouraged to adopt this policy whilst contractors, agents, outsourced workers, and business associates are required to always act consistently with applicable parts of the policy when dealing with, acting on behalf of or in the name of PETRONAS.

PETRONAS' goal of building and maintaining a culture of trust and integrity means doing business the right way.

The Whistleblowing Policy and Procedures is available on PETRONAS' corporate website at https://www.petronas.com/sustainability/governance-and-ethics

How we've strengthened this during the year

Continuous training and engagement exercise to ensure effective compliance programme across the PETRONAS Group.

In complying with its obligations with merger control and collaborative arrangements, merger filing approval has been a key feature of competition compliance, where approval has been obtained for the Refinery and Petrochemical Integrated Development (RAPID) project in five different jurisdictions i.e. China, Poland, Brazil, South Korea and Taiwan. Additionally, merger filing approval has been obtained for the LNG Canada project in Kitimat, British Columbia in two different jurisdictions i.e. South Korea and China.

COMPETITION LAW COMPLIANCE PROGRAMME

To date, there are now more than 130 systems of competition laws in the world and as PETRONAS continues its global expansion, Competition Law Compliance Programme remains as one of the focus compliance area in PETRONAS.

The continued uncertainty of the oil price landscape has strengthened the need for a greater collaboration within the oil and gas players for better cost optimisation and sharing of risk. Under these circumstances, there is a need to focus on cooperation amongst competitors, in order to enjoy maximum efficiency yield from such collaboration, whilst avoiding non-compliance of competition laws.

Recognising the need for PETRONAS to be in full compliance with competition laws wherever it operates, the availability of specialist in-house competition law advisors ensures better awareness and foster effective competition culture for the PETRONAS Group of Companies operating globally, amongst others, by providing dedicated group-wide training. Additionally, it provides the avenue for the PETRONAS' businesses to learn and seek advice with regard to complex competition law matters.

The PETRONAS Competition Law Guidelines have been printed into booklets for distribution to all employees and is also available on PETRONAS' corporate website at https://www.petronas.com/ws/sites/default/files/downloads/sustainability-competition-law-guidelines-r12.pdf

In order to strengthen the competition compliance programme, the current internal compliance processes are currently being further developed and enhanced, including the development of competition protocols with the aim to ensure PETRONAS employees have a practical understanding of competition laws through the protocol's dos and don'ts.

CORPORATE GOVERNANCE AT PETRONAS

HUMAN RIGHTS COMPLIANCE PROGRAMME

PETRONAS is committed to respecting internationally-recognised human rights in areas of our operations, and complying with our Code of Conduct and Business Ethics (CoBE), and to all relevant legal requirements. Fundamentally, the commitment ensures PETRONAS undertakes our business obligations whilst being mindful of stakeholders' varying expectations. The obligations focus on, namely, provision of policy and guidelines, due diligence and access to remedy in the following four areas - labour and working conditions, responsible security, supply chain and community well-being.

To date, elements on human rights have been enhanced into our existing system and processes. These include Code of PETRONAS Contractors Code of Conduct on Human Rights (CoCHR), the PETRONAS Procedures and Guidelines for Upstream Activities (PPGUA) and Downstream's Operational Excellence Management System (OEMS). Additionally, in-house Social Performance practitioners ensure the human rights risks are managed in PETRONAS.

Moving forward, PETRONAS is looking into leveraging digital platforms to enhance our human rights due diligence.

Detailed insights on PETRONAS' human rights practices are featured in PETRONAS' Sustainability Report, available on our corporate website.

How we've strengthened this during the year

Subsequently, Human Rights module has been embedded as mandatory in PETRONAS' Service Auxiliary Police Training.

Project RAPID in Pengerang complies with the International Finance Corporation (IFC) Performance Standards, where the IFC requirements identifies human rights elements. The efforts contributed towards successful project financing from lenders.

This year, PETRONAS was invited to speak on our human rights management on several platforms, namely the World Gas Conference in June and a forum on the United Nations Guiding Principles (UNGP) for Business and Human Rights (UNGPs) by the Human Rights Commission of Malaysia (SUHAKAM) in August 2018.

In aligning PETRONAS with the UNGP, a Grievance Mechanism was made a standard for projects and assets which supports the requirement under the HSE Mandatory Control Framework (MCF). Following the above, group-wide trainings will be conducted in 2019 to ensure the requirements of the standard.

PETRONAS was the only Malaysian company invited to speak at the UNDP/Global Initiative's 7th Responsible Business Forum in October 2018 to share on our human rights practices. In addition, PETRONAS led the exhibition on the topic of Business and Human Rights at SUHAKAM's Inaugural Annual Human Rights Day 2018 in December. This has placed PETRONAS amongst the leading companies within and outside of our industry, that is managing human rights.

Pursuant to the CoCHR which was established in 2017, assessments were conducted the contractors to ensure compliance to the CoCHR.

How we've strengthened this during the year

The PETRONAS Raid Protocol is currently being reviewed and the revised version will be rolled out in 2019.

PETRONAS RAID PROTOCOL

The PETRONAS Raid Protocol provides guidance to our employees on the scope and powers of agencies whilst conducting investigations and/or raids within the premises of the PETRONAS Group of Companies.

CORPORATE GOVERNANCE
AT PETRONAS

INTERNATIONAL ECONOMIC SANCTIONS AND EXPORT-CONTROL COMPLIANCE PROGRAMME

As a global integrated oil and gas company, PETRONAS is committed to adhere to the applicable economic sanctions and export control regulations which are consistent with international norms and standards.

Enforcement statistics have also shown a shift of enforcement focus actions from large banks to corporations, including those in the energy sector. With these developments, compliance to sanctions is crucial in view of PETRONAS' global reach.

As PETRONAS ventures into new markets, compliance efforts in respect of economic sanctions and export control will remain pertinent and relevant.

How we have strengthened this during the year.

The PETRONAS Economic Sanctions and Export Control Policy and Guidelines, approved by the PETRONAS Board on 25 February 2016, continues to serve as a guide for PETRONAS businesses wherever it operates around the globe.

Recognising these developments, we are continuously improving our structure, processes and guidelines, whilst increasing awareness on sanctions and export control-related issues, including through the establishment of the LCD as well as the compliance state assessment.

PERSONAL DATA PROTECTION COMPLIANCE

PETRONAS recognises that its customers value privacy, and PETRONAS is constantly reviewing PETRONAS' policies and procedures in the management of personal data.

How we've strengthened this during the year

The PETRONAS Corporate Private Policy was introduced to govern PETRONAS' commitments and governance structure in respect of the handling, processing, and protection of personal data. The PETRONAS Corporate Privacy Policy reflects international best practices and was approved by the PETRONAS Board on 22 May 2018, and supported by the Master Guidelines regarding data protection.

As part of the Data Protection Compliance Programme, LCD has conducted 11 trainings with respect to the PETRONAS Corporate Privacy Policy and Master Guidelines to selected OPUs and HCUs in 2018. Trainings will continue in 2019.

Moving forward, PETRONAS expects to issue updated corporate policies and procedures during the course of 2019. These will reflect universal standards of behaviour and ethical conduct expected of each employee, director as well as third parties working for or on behalf of the PETRONAS Group and are designed to meet emerging business requirements and challenges. Practical guidance on a range of matters will also be provided to equip our employees and partners to exercise best judgment in their daily conduct.

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

As part of institutionalising a good corporate governance culture, PETRONAS Board (the Board) is pleased to provide the following statement which outlines the nature and scope of risk management and internal control of Petroliam Nasional Berhad and its subsidiaries (the PETRONAS Group) during the year under review. The PETRONAS Statement of Corporate Governance can be referred to, in pages 105 to 118 of this Annual Report.

BOARD'S ACCOUNTABILITY

The Board is responsible to oversee and ensure a sound system of risk management and internal control for the PETRONAS Group. An effective risk management framework helps the PETRONAS Group to achieve its optimal performance and profitability targets by incorporating risk information for better decision-making, whilst sound internal controls enable appropriate response to manage identified risks, thus facilitating effective and efficient operations as well as safeguarding shareholders' investment and the PETRONAS Group's assets.

The Board is also cognisant that its role in providing risk oversight sets the tone and culture towards embedding risk management practices across the PETRONAS Group.

The PETRONAS Board Charter includes risk management and internal control oversight as one of the main functions of the Board, in line with the requirements under the Companies Act 2016.

The Board risk oversight is supported by the following committees:

Board Governance and Risk Committee (BGRC)	The BGRC was established in 2010 to assist the Board in providing, amongst others, direction, guidance and oversight on risk management matters. The BGRC reviews risk policies, strategies, principal risks and risk practices as well as oversees the adequacy of the risk management system to effectively monitor and manage risks in the PETRONAS Group.
Board Audit Committee (BAC)	The BAC assists the Board in fulfilling its responsibilities relating to internal controls and financial reporting by performing oversight functions on behalf of the Board to ensure good governance practices and proper conduct whilst safeguarding the PETRONAS Group's assets.

RISK MANAGEMENT

Risk Management is an integral part of the PETRONAS Group's activities. Ongoing improvement to strengthen the monitoring of principal risks remains a key focus of the Board towards building a successful and sustainable business. Risks across the PETRONAS Group are being managed on an integrated basis and evaluations of those risks are incorporated into the decision-making process.

Dedicated risk management functions also exist within the PETRONAS Group, particularly for listed subsidiaries, to assess and evaluate the risk management processes for reporting to their respective Management and Board.

The PETRONAS Group has in place an ongoing process to manage principal risks affecting the achievement of its business objectives. This includes identifying, evaluating, managing and monitoring these risks. These processes continue to be in place for the year under review and up to the date of approval of this statement.

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

Group-wide implementation of risk management and internal control is supported by the following committees:

Executive Leadership Team (ELT)	The ELT is established to assist the President and Group Chief Executive Officer (CEO) in the management of the Company and is responsible for providing a holistic approach to all business development strategies as well as high impact and high value investments including mergers and acquisitions. The ELT reviews key risk management matters to provide guidance and direction prior to BGRC and Board reporting.
Risk Management Committee (RMC)	The RMC is formed to serve as a platform to assist the ELT, the BGRC and the Board in identifying principal risks and reviewing governing documents at the corporate level as well as to provide assurance on risk management practices across the PETRONAS Group to protect and safeguard PETRONAS' interest. The RMC also promotes sound risk management practices through the sharing of information, best practices and lessons learnt to enhance the risk culture across the PETRONAS Group.

The PETRONAS Group's system of risk management and internal control seeks to manage and control risks appropriately. The system provides reasonable but not absolute assurance against material misstatement or loss, or the occurrence of unforeseeable circumstances.

In order to build highly capable practitioners to meet risk management requirements, the PETRONAS Group provides continuous risk management capability development and knowledge sharing programmes.

The risk management capability development programme consists of classes and e-learning modules which were carried out to build the competency of risk practitioners. Corporate membership to risk associations also provided platforms for risk practitioners to participate in risk management conferences and seminars to keep abreast with risk management standards and best practices.

The knowledge sharing programme consists of risk publications, risk conversations, a community of practice and series of risk engagements, all of which propagate the sharing of current risk management practices and lessons learnt.

Risk Policy
PETRONAS Risk Policy (refer Chart 1) stipulates the general principles and guidelines for actions which influence decisions. It gives a clear communication of the management's expectations in relation to risk management practices throughout the PETRONAS Group.

The PETRONAS Risk Policy is complemented by the PETRONAS Resiliency Model that provides an integrated and holistic view of the overall strategy to manage the PETRONAS Group's risks, focusing on three areas of business resilience, namely Enterprise Risk Management (ERM), Crisis Management (CM) and Business Continuity Management (BCM). These are supported by risk frameworks and the relevant guidelines to govern, guide and institutionalise risk management practices across the PETRONAS Group. The status of risk management practices across the PETRONAS Group are monitored and reported quarterly to the RMC.

PETRONAS RISK POLICY

PETRONAS shall adopt and implement risk management best practices by identifying, assessing, treating and monitoring risks as well as effectively responding to crises.

In the event of prolonged disruption, business continuity practices shall be adopted to restore and ensure continuity of PETRONAS' key business activities.

ENTERPRISE RISK MANAGEMENT	CRISIS MANAGEMENT	BUSINESS CONTINUITY MANAGEMENT
Structured and holistic approach to identify, assess, treat and monitor risks. The aim is to **REDUCE** the likelihood and impact of identified risks to enhance the organisation's ability to achieve its strategic objectives.	Comprehensive set of processes that aim to prepare the organisation to **RESPOND** and manage crises in the risk areas to protect people, environment, assets, and reputation.	Holistic management process that aims to build the capability of an organisation to **RECOVER** and continue delivery of products or services at acceptable predefined levels following a prolonged disruptive incident.

Chart 1: *PETRONAS Risk Policy and PETRONAS Resiliency Model*

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

Enterprise Risk Management
The Enterprise Risk Management (ERM) (refer Chart 2) process is an integral part of managing the business as it provides a guide to systematically identify, assess, treat, monitor and review risks. It aims to improve the ability to reduce the likelihood and/or impact of identified risks that may affect the achievement of business objectives.

Risk profiles established through the ERM process are monitored at the corporate level and across the PETRONAS Group and consist of identified principal risks with the corresponding risk mitigations and key risk indicators. This allows actions to be taken to ensure that risks are being effectively managed by respective units, endorsed by the Head of Department of the respective Holding Company Units (HCU), Business Units (BU) or Operating Units (OPU), and reported to their Management and Board on a quarterly basis.

PETRONAS Risk Appetite articulates the type of risks that the PETRONAS Group is willing to assume to guide strategic decisions at the corporate level in pursuit of business values and objectives. It reflects the PETRONAS Group's stance, propensity and acceptability to take risks in various areas, namely strategic, financial, operational, reputational, and legal and regulatory compliance, and is defined by respective tolerances and threshold levels. At the corporate level, it is monitored and reported on a quarterly basis to the ELT, BGRC, and the Board.

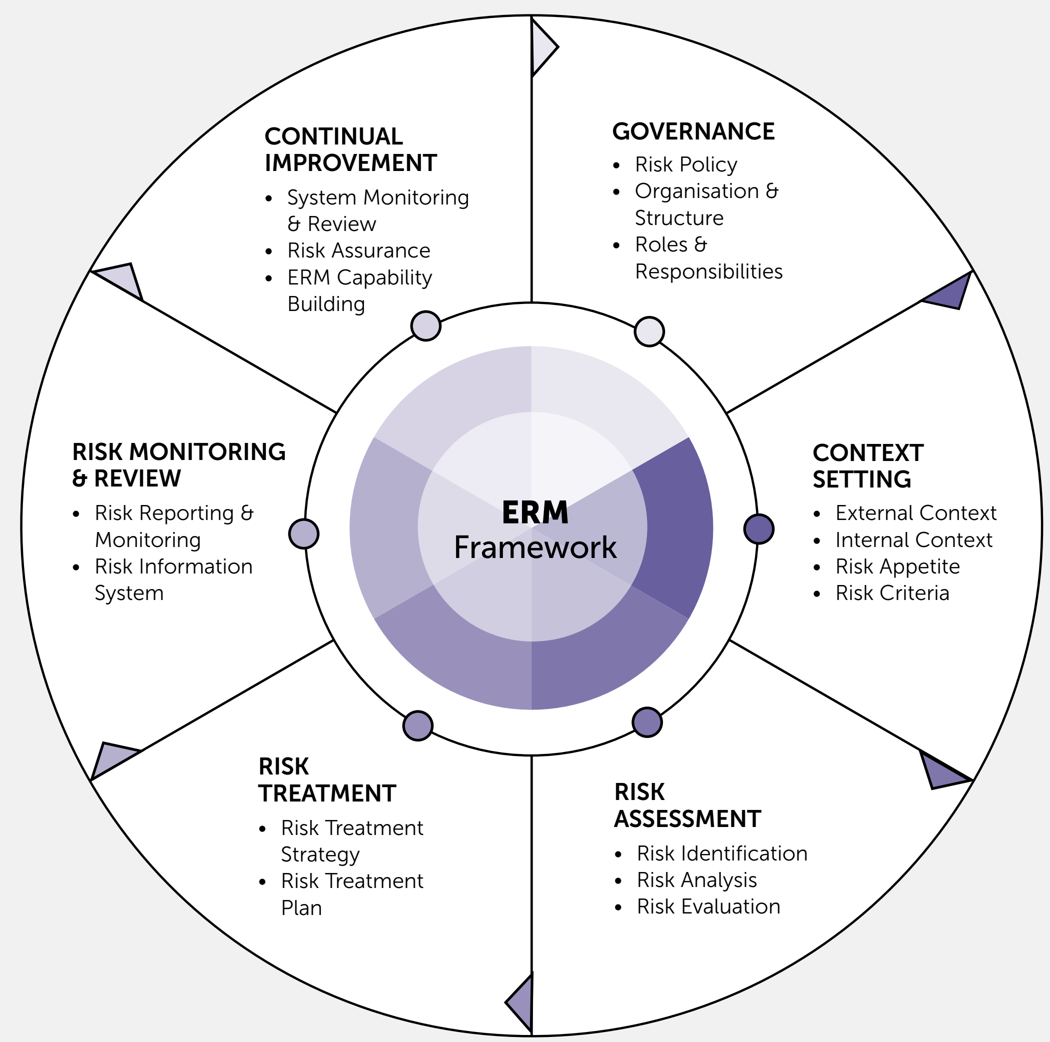


Chart 2: *Enterprise Risk Management Framework*

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

Crisis Management

Crisis Management (CM) (refer Chart 3) is an integrated process that aims to prepare an organisation, at both domestic and international operations, to respond and manage crises in the risk areas to protect People, Environment, Asset, and Reputation (PEAR).

There is a three-tiered response system which provides the demarcation of roles and responsibilities between emergency site management, operating unit management, corporate and internal/external response agencies and/or authorities. Testing & Exercising (T&E) via simulation of test scenarios validates the effectiveness of response strategies as well as promotes continual improvement as identified in the Crisis Management Plan (CMP). T&E programmes were carried out at the respective HCUs, BUs and OPUs.

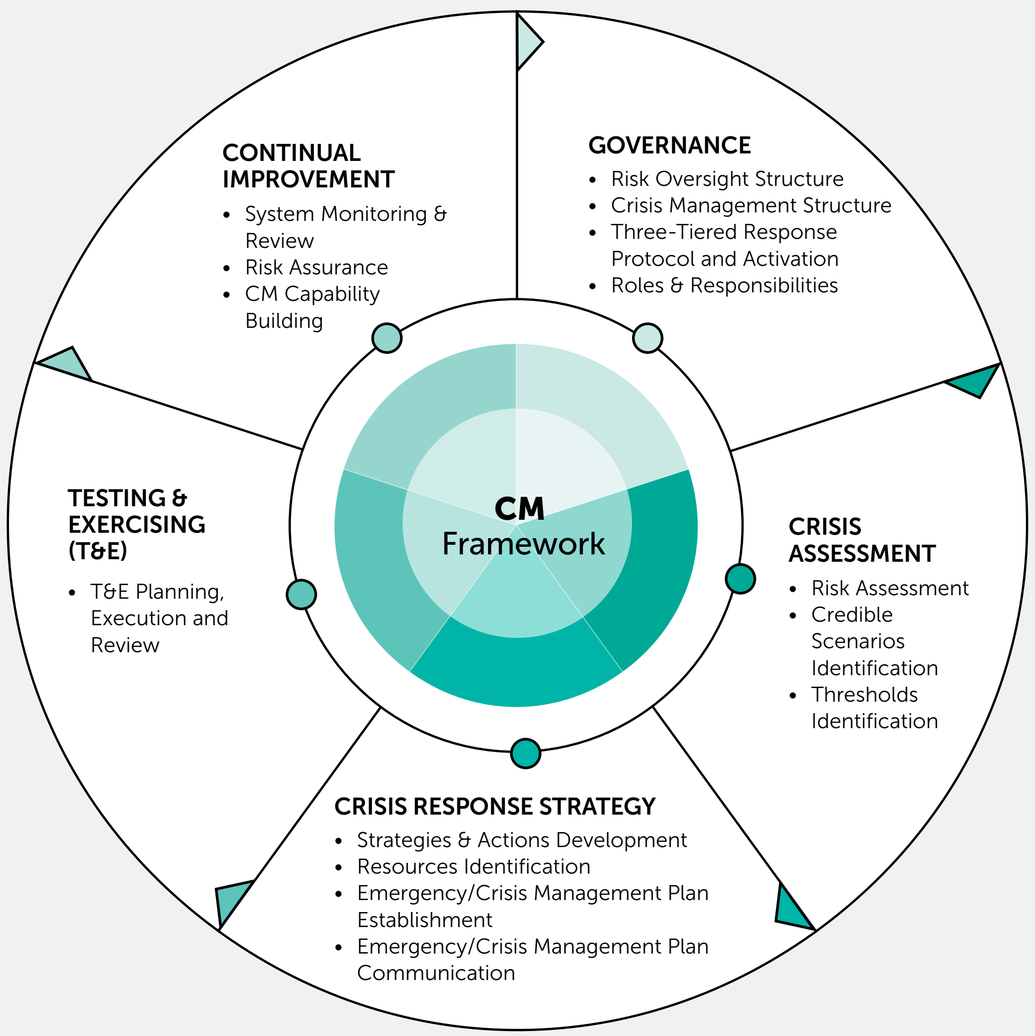


Chart 3: *Crisis Management Framework*

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

Business Continuity Management

Business Continuity Management (BCM) (refer Chart 4) is a management process that aims to build the capability of the PETRONAS Group to recover and continue delivery of products or services at acceptable predefined levels following any prolonged disruption.

Business Continuity Plans (BCP) were established through the BCM process to enhance the PETRONAS Group's preparedness to recover and restore businesses' critical functions within a reasonable period of time towards sustaining the PETRONAS Group's activities and minimising disruptions to stakeholders. T&E via simulation of test scenarios validates the effectiveness of recovery strategies as well as maintains a high level of competence and readiness as identified in the BCP. T&E programmes were carried out at the respective HCUs, BUs and OPUs.

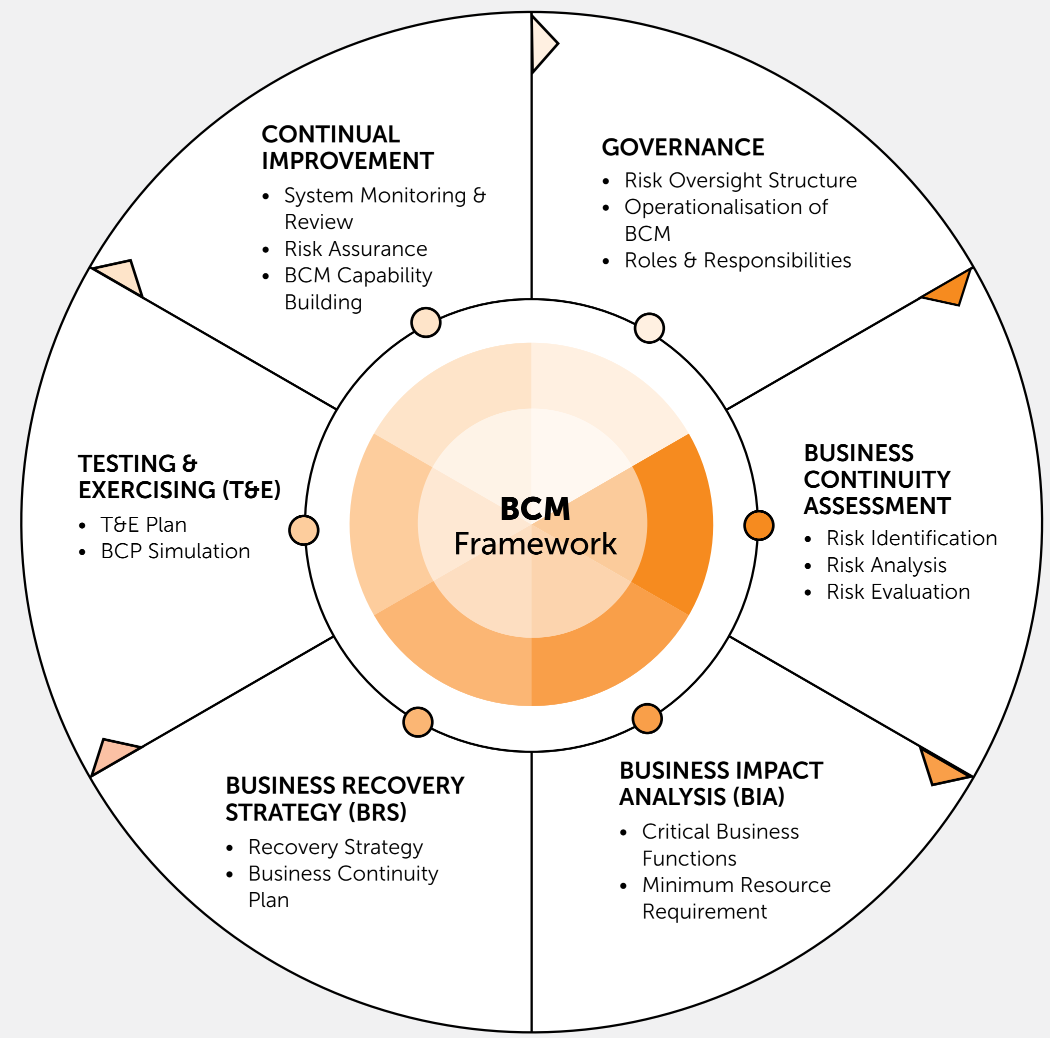


Chart 4: *Business Continuity Management Framework*

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

KEY INTERNAL CONTROL

As part of the PETRONAS Resiliency Model, internal controls were developed to facilitate standardisation of processes and practices across the PETRONAS Group for focus risk areas such as Financial, Health, Safety, Security and Environment (HSSE), Plant and Facilities, Project, Procurement, Information and Communication Technology (ICT), Reputation, Human Capital, and Country.

FINANCIAL

Limits of Authority

The Limits of Authority (LOA) defines decision-making limits within the PETRONAS Group, providing a balance between effective and quality decision-making and appropriate management control.

All LOA development and revision are independently reviewed by the Group Financial Control Department, to ensure adherence and consistency with the PETRONAS Group LOA Framework and the PETRONAS LOA Guidelines.

Budget Approval

Budget is an important internal control mechanism used by the PETRONAS Group to ensure an agreed allocation of resources and that the operational managers are sufficiently guided in making business decisions. The PETRONAS Group performs a comprehensive annual planning and budgeting exercise including the development and validation of business strategies for a rolling five-year period, and the establishment of performance indicators against which BUs and subsidiary companies are evaluated.

The PETRONAS Group strategic directions were reviewed during the year due to changes in market conditions and significant business risks.

Financial Control Framework

The PETRONAS Group has a Financial Control Framework (FCF) with the principal objective of providing reasonable assurance on the quality of financial reporting. This is done through a structured process of ensuring the adequacy and effectiveness of key internal controls operating at various levels within the PETRONAS Group at all times.

The FCF requires amongst others, documentation of key controls, remediation of control gaps as well as a periodic testing of control operating effectiveness. On a semi-annual basis, each key process owner at various management levels is required to complete and submit a letter of assurance which provides confirmation of compliance to key controls for the areas which they are accountable for.

Corporate Financial Policy

The Corporate Financial Policy (CFP) prescribes the PETRONAS Group's governing requirements in effecting the consistent practice of financial management, as well as to form the foundation upon which financial risk exposures are identified and strategies to manage such risks are developed.

The financial risk management practices are implemented across the PETRONAS Group in accordance with the requirements of the CFP. This enables visibility on the PETRONAS Group's key financial risk exposures for improved risk management.

In addition to the CFP, the PETRONAS Liquidity Risk Contingency Protocol (LRCP) and PETRONAS Trading Mandate have been established to safeguard PETRONAS Group's liquidity position and its financial sustainability, as well as to ensure alignment of risk appetite between PETRONAS and its OPUs with regard to trading activities.

HEALTH, SAFETY, SECURITY AND ENVIRONMENT (HSSE)

The PETRONAS Group's Health, Safety and Environment (HSE) policy is supported by the HSE Management System (HSEMS) as well as HSE Mandatory Control Framework (MCF) whilst PETRONAS Security policy is supported by the Security Management System (SeMS) with Minimum Mandatory Security Standard (M2S2) to strengthen HSSE governance within the PETRONAS Group. HSE MCF includes clear requirements on health, operational safety and environment for consistent and effective group-wide implementation, whilst the M2S2 outlines the minimum security standards required to effectively manage security risks and protect the PETRONAS Group's assets.

The PETRONAS HSSE Executive Leadership Team (HSSE ELT) is the highest management committee that steers group-wide HSSE policies and strategies. HSSE ELT reviewed PETRONAS' HSSE performance three times during the year. Additionally, the Group HSSE Leadership Team (HSSE LT) is a platform to discuss

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

KEY INTERNAL CONTROL (CONTINUED)

effective execution of key strategies and associated issues that impact group-wide HSSE key result areas, risk management and internal controls, and provide guidance on the way forward.

HSE and Security Risk Assessments were carried out to identify potential hazards/threats, analyse the adequacy of current HSE and Security measures and propose mitigations, gap closure activities and counter measures. HSE Tier 3 Assurance is an independent assessment that was carried out by Group HSSE to provide assurance on the effectiveness of HSE controls. The summary of assurance findings and corrective action plans were then presented half-yearly to the PETRONAS BAC whilst BUs and OPUs carried out HSE Assurances to assess compliance to regulatory requirements and HSE procedures. The findings from HSE and Security Risk Assessments and HSE Assurances were presented to HCU/BU/OPU management committees to provide them with a clear view of their respective HSE and Security risks.

PLANT AND FACILITIES

The risk management of plant and facilities in PETRONAS is governed by Plant and Facilities Risk Management (PFRM) Guideline, Reliability and Integrity Management Systems (RIMS), the respective Downstream and Upstream Business Operational Excellence Management System (OEMS), and PETRONAS Technical Standards (PTS).

PFRM prescribes the principles and structured processes in managing operational risks in accordance with the PETRONAS Resiliency Model. It guides plant and facilities to systematically identify, assess, control, monitor and review operational risks to improve the ability to reduce the likelihood and/or impact of identified risks. The remaining governing documents prescribe the specific system and work processes required by the PETRONAS Group's plant and facilities as part of the internal controls to manage their plant and facilities over the entire life cycle in order to operate the plant and facilities safely and achieve the targeted reliability, integrity, and performance.

The risk profiles of respective plants and facilities have been developed through the PFRM process where risks are rated based on its probability and impact on the operations. These will determine the appropriate mitigations for every principal risk for actions to be taken to ensure that operational risks are being managed.

In addition, plants and facilities' self-assessment and assurance fieldwork activities were conducted to ensure group-wide plants and facilities internal controls are in place and in compliance with the established governing documents.

PROJECT

Project risk management is implemented in accordance with the PETRONAS Project Management System (PPMS). PPMS Phase Gated Process is designed to retain and maximise project value across a project's life cycle which includes the decision-making process in directing and controlling investment of capital projects leading to project sanction.

The purpose of the PPMS Phase Gated Process is to bring a measure of rational processes to the decision-making associated with transforming business opportunity into operational assets. The PPMS Phase Gated Process consists of structured phases from framing, feasibility study, scope selection, scope definition, and execution to operationalisation. Each phase prescribes the project management standards to ensure consistency of practices.

Project risks are identified, assessed, mitigated and validated through assurance programmes under the PPMS framework. The processes are meant to reduce the risk of unexpected technical and/or commercial factors significantly affecting the project's viability.

PROCUREMENT

Procurement management serves as a key function in supporting the management and is implemented based on the PETRONAS Tender and Contract Administrative Manual duly established for group-wide adoption.

The Group Procurement Leadership Team (GP LT) provides stewardship on the overall strategic direction of the Group Procurement sector. GP LT also reviews the overall performance of the sector's business proposal, progress of key strategic initiatives and resolve key issues of mutual concern and interest.

Group Procurement has clearly defined authorisation procedures for awarding tenders and all procurement transactions covering both capital and revenue expenditure items.

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

KEY INTERNAL CONTROL (CONTINUED)

Tender Committees with cross functional representation provide the oversight function on tendering whilst Contractor Performance Review and Appeal Committee and Vendor Evaluation Committees deliberate on contractors' and/or vendors' performance matters prior to approval by the approving authorities as set out in the LOA approved by the respective boards.

In addition, procurement assurance programmes were conducted to assess compliance of the procurement process in regard to the comprehensiveness and effectiveness of the procurement management implementation.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

PETRONAS information security is guided by the PETRONAS ICT Principles and PETRONAS Records Management Principles and is supported by seven ICT Standards and Guidelines which set out the purpose, commitment and governance of ICT and Records Management and shall be adhered to by the PETRONAS Group.

The PETRONAS Group's Information Security processes are accredited with the International Organization for Standardization (ISO) 27001:2013 – Information Security Management System Standard. PETRONAS Group ICT has in place ICT security tools and procedures to detect, respond and mitigate threats.

PETRONAS Group's ICT governance is led by the PETRONAS CIO Council that deliberates on all enterprise ICT matters related to strategy, investments, policies, programmes, project prioritisations, information security, and performance.

PETRONAS Group ICT also has in place a Disaster Recovery Plan (DRP) for identified critical business applications. Scheduled drills and exercises are conducted annually to ensure readiness in the event of an ICT disaster.

In addition, PETRONAS Group ICT conducted a Cyber Security Assurance Programme (CSAP) to assess the implementation of information security controls of the PETRONAS Group in accordance with PETRONAS ICT governing documents.

REPUTATION

Strategic Communications Management Committee (SCMC) leads and manages an integrated global strategic communications function which ensures that a single strategic direction supports the business strategy. The committee also ensures a consistent and results-based communication approach and delivers operational excellence to safeguard PETRONAS' reputation.

The Reputation Risk Framework and Reputation Risk Guideline have been established and implemented to govern and institutionalise reputation risk Management across the PETRONAS Group.

Risks and issues impacting the PETRONAS Group's reputation are monitored and communicated to the management on a weekly basis. Analysis from these reports is a reference point for the formulation of group-wide communication and engagement strategies which address these reputation risks and issues, in support of the PETRONAS Group's business objectives.

HUMAN CAPITAL

The PETRONAS Group Human Resource Management (HRM) operates through a formal organisation structure with delineated lines of authority, responsibility, and accountability.

The Group HRM LOA, guidelines and procedures were established and implemented to govern and monitor Human Capital Management which is represented by the entire HRM value chain i.e. Organisation Development & Design, Strategic Workforce Planning, Talent Sourcing, People Development, Industrial Relations and Remuneration Management.

The HRM Management Committee is the main platform that deliberates and decides on matters related to HRM strategies, investments, policies, guidelines, project prioritisation and performance review. Matters related to HRM strategies and policies review and enhancement are further deliberated at the ELT People Development Committee (ELT PDC).

The HRM Risk Management Committee meets bi-annually and was established to track and deliberate risk matters pertaining

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

KEY INTERNAL CONTROL (CONTINUED)

to the effectiveness and robustness of human capital solutions, as well as to address business dynamics and sustain continuous talents at all levels to achieve PETRONAS' business strategies.

There is also the PETRONAS Talent Council that further deliberates on issues and risks impacting PETRONAS' Corporate Critical Position.

COUNTRY

The Country Risk Management Framework (CRMF) prescribes the oversight structure, roles and responsibilities, and assessment tools in ensuring country risks are managed in a systematic and structured manner across the PETRONAS Group.

CRMF describes how Country Risk Management (CRM) oversights and functions shall be organised within the PETRONAS Group and defines clear roles and responsibilities at respective management levels. It also prescribes requirements on pre-entry, in-country and exit management to support decision-making in relation to international investments and managing in-country risks holistically.

Pre-entry assessment, in-country assessment and development of an exit strategy for the identified countries were conducted and reported to the respective country's management and Board.

INTERNAL AUDIT

The Board recognises that the internal audit function is an integral component of the governance process. PETRONAS Group Internal Audit (GIA) reports directly to the PETRONAS BAC. In addition, public listed subsidiaries within the PETRONAS Group have their own individual BACs. PETRONAS Group's Internal Audit functions support their respective BACs by providing an independent and objective assurance designed to add value and improve the PETRONAS Group's operations.

PETRONAS GIA's position within the PETRONAS Group, its authority, responsibilities and scope of work, are defined in the Internal Audit Charter approved by the PETRONAS BAC. The Charter is aligned with the standards and principles outlined in the International Professional Practices Framework (IPPF) issued by the Institute of Internal Auditors (IIA). In performing audits, PETRONAS GIA refers to the internal control framework and guidance issued by the Committee of Sponsoring Organisations of the Treadway Commission (COSO). COSO is an internationally recognised organisation providing guidance on internal control, enterprise risk management, and governance.

The key responsibility of the PETRONAS Internal Audit function is to assist the PETRONAS Group in accomplishing its goals by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of risk management, internal control, and governance processes. The Internal Audit function maintains its impartiality, proficiency, and due professional care by having its plans and reports directly under the purview of the respective BACs.

The respective BACs review reports on internal audits performed under its purview, including the agreed corrective actions to be undertaken by the respective HCU/BU/OPU, as well as the PETRONAS Group's quarterly financial results. The internal audit functions monitor the status of the agreed corrective actions through the Quarterly Audit Status Report submitted by the respective HCU/BU/OPU which have been assessed and verified by the internal audit. The consolidated status of the audit issues were submitted and presented to the respective BACs for deliberation on a quarterly basis.

OTHER MATTERS

The risk management and internal control systems discussed in this statement do not apply to entities where the PETRONAS Group does not have control, which includes joint arrangements.

STATEMENT ON **RISK MANAGEMENT AND INTERNAL CONTROL**

AFFIRMATION BY THE BOARD

The Board has received assurance from the President and Group CEO and the Executive Vice President and Group Chief Financial Officer that the PETRONAS Group's financial records are properly maintained and that the risk management and internal control system is operating adequately and effectively in addressing the material risks within the Group in its current business environment.

The Board is of the view that risk management and internal control instituted throughout the Group is sound and provides a reasonable level of confidence, but not absolute assurance that the PETRONAS Group is not affected by any event that cannot be reasonably foreseen. The Board has recognised a state claim issue which may give rise to material business impact. Measures have been taken including engagement with the shareholder to manage any risks that may arise from this issue. In the year under review, the Board is not aware of any significant control failure or weakness that would have resulted in material losses, contingencies or uncertainties requiring separate disclosure in the Annual Report.

REVIEW OF STATEMENT BY EXTERNAL AUDITOR

The external auditors have reviewed this Statement on Risk Management and Internal Control pursuant to the scope set out in the Audit and Assurance Practice Guide (AAPG) 3, Guidance for Auditors on Engagements to Report on the Statement on Risk Management and Internal Control included in the Annual Report issued by the Malaysian Institute of Accountants (MIA) for inclusion in the Annual Report of PETRONAS for the year ended 31 December 2018, and reported to the Board that nothing has come to their attention that cause them to believe that the statement intended to be included in the Annual Report of PETRONAS, in all material respects, has not been prepared in accordance with the disclosures required by paragraphs 41 and 42 of the Statement on Risk Management and Internal Control: Guidelines for Directors of Listed Issuers, or is factually inaccurate.

AAPG 3 does not require the external auditors to consider whether the Directors' Statement on Risk Management and Internal Control covers all risks and controls, or to form an opinion on the adequacy and effectiveness of the PETRONAS Group's risk management and internal control system, including the assessment and opinion by the Board of Directors and management thereon. The auditors are also not required to consider whether the processes described to deal with material internal control aspects of any significant problems disclosed in the Annual Report will, in fact, remedy the problems.

This statement is made in accordance with the resolution of the Board of Directors dated 28 February 2019.

SECTION

5

FINANCIAL STATEMENTS AND OTHER INFORMATION

Discover how we manage our capital and finances as we continue to exercise financial prudence in all our endeavours.

DIRECTORS' **REPORT**

for the year ended 31 December 2018

The Directors have pleasure in submitting their report and the audited financial statements of the Group and of the Company for the year ended 31 December 2018.

PRINCIPAL ACTIVITIES

The principal activities of the Company in the course of the financial year remained unchanged and consist of exploitation of oil and gas, the marketing of petroleum and petroleum products and investment holding. The principal activities of key subsidiaries, associates and joint ventures are stated in note 43, note 44 and note 45 to the financial statements respectively. The principal activities of other subsidiaries are available at the Company's registered office and the Board deems such information is included in the Company's Directors' Report by such reference and shall form part of the Company's Directors' Report.

The Company is wholly-owned by the Government of Malaysia.

SUBSIDIARIES

The details of the Company's subsidiaries are disclosed in note 43 to the financial statements.

RESULTS

In RM Mil	Group	Company
Profit for the year	55,310	50,998
Attributable to:		
Shareholders of the Company	47,865	50,998
Non-controlling interests	7,445	-

DIVIDENDS

During the financial year, the amount of dividends paid by the Company were as follows:

(i) a final tax exempt dividend of RM160,000 per ordinary share amounting to RM16 billion declared on 27 February 2018 and paid in instalments between May and November 2018 in respect of financial year ended 31 December 2017 as reported in the Directors' Report of that year;

(ii) an interim tax exempt dividend of RM30,000 per ordinary share amounting to RM3 billion declared in January 2018 and paid in instalments between January and March 2018 in respect of financial year ended 31 December 2018;

(iii) a second interim tax exempt dividend of RM20,000 per ordinary share amounting to RM2 billion declared in April 2018 and paid in May 2018 in respect of financial year ended 31 December 2018;

(iv) a special tax exempt dividend of RM30,000 per ordinary share amounting to RM3 billion declared in July 2018 and paid in instalments between July and October 2018 in respect of financial year ended 31 December 2018; and

DIRECTORS' **REPORT**
for the year ended 31 December 2018

DIVIDENDS (CONTINUED)

(v) an additional special tax exempt dividend of RM20,000 per ordinary share amounting to RM2 billion declared in October 2018 and paid in instalments between October and November 2018 in respect of financial year ended 31 December 2018.

The Company declared an additional special tax exempt dividend of RM300,000 per ordinary share amounting to RM30 billion declared in November 2018 which have been and will be paid in instalments between January and November 2019 in respect of financial year ended 31 December 2018.

The Directors propose a final tax exempt dividend of RM240,000 per ordinary share amounting to RM24 billion in respect of the financial year ended 31 December 2018 for shareholders' approval at the forthcoming Annual General Meeting.

The financial statements for the current financial year do not reflect this proposed final dividend. Such dividend, if approved by the shareholders, will be accounted for in equity as an appropriation of retained profits during the financial year ending 31 December 2019.

RESERVES AND PROVISIONS

There were no material movements to and from reserves and provisions during the year other than as disclosed in the financial statements.

DIRECTORS

Directors who served during the financial year until the date of this report are:

Datuk Ahmad Nizam bin Salleh (Chairman) (appointed on 1 August 2018)
Tan Sri Wan Zulkiflee bin Wan Ariffin
Tan Sri Amirsham bin Abdul Aziz
Tan Sri Muhammad bin Ibrahim
Dato' Mohamad Idris bin Mansor
Krishnan C K Menon
Ainul Azhar bin Ainul Jamal (appointed on 15 May 2018)
Datuk Siti Zauyah binti Md Desa (appointed on 15 October 2018)
Zakiah binti Jaafar (appointed on 15 October 2018)
Tengku Muhammad Taufik (appointed on 15 October 2018)
Tan Sri Dr. Mohd Irwan Serigar bin Abdullah (resigned on 23 May 2018)
Dato' Khodijah binti Abdullah (ceased as alternate director to Tan Sri Dr. Mohd Irwan Serigar bin Abdullah on 23 May 2018)
Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani (resigned on 18 June 2018)
Tan Sri Mohd Sidek bin Hassan (resigned on 30 June 2018)
Datuk Mohd Omar bin Mustapha (resigned on 30 June 2018)
Tan Sri Zarinah Sameehah binti Anwar (resigned on 12 September 2018)
Dato' Sri Sharifah Sofianny binti Syed Hussain (resigned on 30 September 2018)
Datuk Manharlal Ratilal (resigned on 15 October 2018)
Datuk Pengiran Hassanel bin Pg Mohd Tahir (resigned on 1 January 2019)

The names of Directors of subsidiaries are available at the Company's registered office and the Board deems such information is included in the Company's Directors' Report by such reference and shall form part of the Company's Directors' Report.

DIRECTORS' **REPORT**

for the year ended 31 December 2018

DIRECTORS' INTERESTS

The Directors in office at the end of the year who have interests in the shares of the Company's related corporations other than wholly-owned subsidiaries (including the interests of the spouses and/or children of the Directors who themselves are not directors of the Company) as recorded in the Register of Directors' Shareholdings are as follows:

	Number of ordinary shares in PETRONAS Gas Berhad			
Name	**Balance at 1.1.2018/ date of appointment**	**Bought**	**Sold**	**Balance at 31.12.2018**
Datuk Ahmad Nizam bin Salleh	2,000	-	-	2,000
Tan Sri Amirsham bin Abdul Aziz:				
- others	2,000	-	-	2,000

	Number of ordinary shares in PETRONAS Dagangan Berhad			
Name	**Balance at 1.1.2018**	**Bought**	**Sold**	**Balance at 31.12.2018**
Tan Sri Amirsham bin Abdul Aziz:				
- others	2,000	-	-	2,000

	Number of ordinary shares in PETRONAS Chemicals Group Berhad			
Name	**Balance at 1.1.2018/ date of appointment**	**Bought**	**Sold**	**Balance at 31.12.2018**
Datuk Ahmad Nizam bin Salleh	10,000	-	-	10,000
Tan Sri Wan Zulkiflee bin Wan Ariffin	20,000	-	-	20,000
Tan Sri Muhammad bin Ibrahim	20,000	-	-	20,000
Krishnan C K Menon	20,000	-	-	20,000

	Number of ordinary shares in MISC Berhad			
Name	**Balance at 1.1.2018**	**Bought**	**Sold**	**Balance at 31.12.2018**
Tan Sri Amirsham bin Abdul Aziz:				
- own	11,600	-	-	11,600
- others	4,000	-	-	4,000

DIRECTORS' **REPORT**

for the year ended 31 December 2018

DIRECTORS' INTERESTS (CONTINUED)

	Number of ordinary shares in Malaysia Marine and Heavy Engineering Holdings Berhad			
Name	**Balance at 1.1.2018**	**Bought**	**Sold**	**Balance at 31.12.2018**
Tan Sri Wan Zulkiflee bin Wan Ariffin	10,000	-	-	10,000
Tan Sri Amirsham bin Abdul Aziz:				
- own	6,000	-	-	6,000
- others	6,000	-	-	6,000

	Number of ordinary shares in KLCC Property Holdings Berhad			
Name	**Balance at date of appointment**	**Bought**	**Sold**	**Balance at 31.12.2018**
Ainul Azhar bin Ainul Jamal	4,500	-	-	4,500

None of the other Directors holding office at 31 December 2018 had any interest in the ordinary shares of the Company and of its related corporations during the financial year.

DIRECTORS' BENEFITS

Since the end of the previous financial year, no Director of the Company has received or become entitled to receive any benefit (other than the benefit included in the aggregate amount of remuneration received or due and receivable by Directors as shown in note 37 of the financial statements), by reason of a contract made by the Company or a related corporation with the Director or with a firm of which the Director is a member, or with a company in which the Director has a substantial financial interest.

There were no arrangements during and at the end of the financial year which had the object of enabling Directors of the Company to acquire benefits by means of the acquisition of shares in or debentures of the Company or any other body corporate.

ISSUE OF SHARES

There were no changes in the issued and paid up capital of the Company during the financial year.

OPTIONS GRANTED OVER UNISSUED SHARES

No options were granted to any person to take up unissued shares of the Company during the financial year.

INDEMNITY AND INSURANCE COSTS

During the financial year, Petroliam Nasional Berhad (PETRONAS) and its subsidiaries (hereinafter referred to as "PETRONAS Group"), including the Company, maintained a Directors' and Officers' Liability Insurance in accordance with Section 289 of the Companies Act 2016. The total insured limit for the Directors and Officers Liability Insurance effected for the Directors and Officers of PETRONAS Group is RM1,290 million (2017: RM300 million) per occurrence and in the aggregate. The insurance premium for the Group and the Company are RM1,109,143 and RM342,046 respectively.

DIRECTORS' **REPORT**
for the year ended 31 December 2018

OTHER STATUTORY INFORMATION

Before the financial statements of the Group and of the Company were made out, the Directors took reasonable steps to ascertain that:

(i) the necessary actions had been taken in relation to the writing off of bad debts and the provisioning of doubtful debt and satisfied themselves that all known bad debts have been written off and adequate provision made for doubtful debts; and

(ii) any current assets which were unlikely to be realised, in the ordinary course of business, their values as shown in the accounting records of the Group and of the Company, had been written down to an amount which they might be expected so to realise.

At the date of this report, the Directors are not aware of any circumstances:

(i) that would render the amount written off for bad debts, or the amount of the provision for doubtful debts, in the Group and in the Company inadequate to any substantial extent, or

(ii) that would render the value attributed to the current assets in the financial statements of the Group and of the Company misleading, or

(iii) which have arisen which render adherence to the existing method of valuation of assets or liabilities of the Group and of the Company misleading or inappropriate, or

(iv) not otherwise dealt with in this report or the financial statements, that would render any amount stated in the financial statements of the Group and of the Company misleading.

At the date of this report, there does not exist:

(i) any charge on the assets of the Group or of the Company that has arisen since the end of the financial year and which secures the liabilities of any other person, or

(ii) any material contingent liability in respect of the Group or of the Company that has arisen since the end of the financial year.

No material contingent liability or other liability, other than as disclosed in the financial statements, of any company in the Group has become enforceable, or is likely to become enforceable within the period of twelve months after the end of the financial year which, in the opinion of the Directors, will or may substantially affect the ability of the Group and the Company to meet their obligations as and when they fall due.

In the opinion of the Directors, the financial performance of the Group and of the Company for the financial year ended 31 December 2018 have not been substantially affected by any item, transaction or event of a material and unusual nature other than those that have been disclosed in the financial statements, nor has any such item, transaction or event occurred in the interval between the end of that financial year and the date of this report.

DIRECTORS' **REPORT**
for the year ended 31 December 2018

OTHER STATUTORY INFORMATION (CONTINUED)

In respect of the Directors or past Directors of the Company:

(i) the amount of fees and other benefits paid to or receivable by them from the Company or its subsidiary companies as remuneration for their services to the Company or its subsidiary companies; and

(ii) the estimated money value of any other benefits received or receivable by them otherwise than in cash from the Company or from any of its subsidiaries

are disclosed in note 37.

There are no amounts paid to or receivable by any third party in respect of the services provided to the Company or any of its subsidiary companies by any Director or past Director of the Company.

The Company has been granted a relief order pursuant to Section 255(1) of the Companies Act 2016 relieving the Company's Directors from full compliance to the requirements under Section 253(2) of the Companies Act 2016.

AUDITORS

The auditors, KPMG PLT, have indicated their willingness to accept re-appointment.

The auditors' remuneration is disclosed in note 27 to the financial statements.

Signed on behalf of the Board of Directors
in accordance with a resolution of the Directors:

Datuk Ahmad Nizam bin Salleh
Chairman

Tan Sri Wan Zulkiflee bin Wan Ariffin
Director

Kuala Lumpur,
Date: 28 February 2019

STATEMENT BY **DIRECTORS**

In the opinion of the Directors, the financial statements set out on pages 138 to 277, are drawn up in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the Companies Act 2016 in Malaysia so as to give a true and fair view of the financial position of the Group and of the Company at 31 December 2018 and of their financial performance and cash flows for the financial year then ended on that date.

Signed on behalf of the Board of Directors
in accordance with a resolution of the Directors:

....
Datuk Ahmad Nizam bin Salleh
Chairman

....
Tan Sri Wan Zulkiflee bin Wan Ariffin
Director

Kuala Lumpur,
Date: 28 February 2019

STATUTORY **DECLARATION**

I, **Tengku Muhammad Taufik**, the Director primarily responsible for the financial management of **PETROLIAM NASIONAL BERHAD (PETRONAS)**, do solemnly and sincerely declare that the financial statements set out on pages 138 to 277 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the abovenamed
Tengku Muhammad Taufik NRIC: 740206-14-5381,
MIA Membership Number: 28845
at **Kuala Lumpur** in **Wilayah Persekutuan**
on 28 February 2019.

BEFORE ME:

PESURUHJAYA SUMPAH
W530
TAN SEOK KETT
BC/T/301
1/1/2019-31/12/2021
MALAYSIA

CONSOLIDATED STATEMENT OF **FINANCIAL POSITION**

as at 31 December 2018

In RM Mil	Note	2018	2017
ASSETS			
Property, plant and equipment	3	**310,385**	327,458
Investment properties	4	**8,964**	10,187
Land held for development	5	**2,957**	3,018
Prepaid lease payments	6	**1,173**	1,253
Investments in associates	8	**6,997**	6,857
Investments in joint ventures	9	**8,551**	6,235
Intangible assets	10	**22,513**	22,079
Long term receivables	11	**16,795**	13,993
Fund and other investments	12	**2,300**	544
Deferred tax assets	14	**14,245**	9,710
TOTAL NON-CURRENT ASSETS		**394,880**	401,334
Trade and other inventories	15	**14,503**	15,379
Trade and other receivables	16	**46,205**	44,035
Assets classified as held for sale	17	**2,003**	3,139
Fund and other investments	12	**5,147**	7,754
Cash and cash equivalents	18	**173,576**	128,209
TOTAL CURRENT ASSETS		**241,434**	198,516
TOTAL ASSETS		**636,314**	599,850
EQUITY			
Share capital	19	**100**	100
Reserves	20	**380,371**	389,694
Total equity attributable to shareholders of the Company		**380,471**	389,794
Non-controlling interests	21	**44,781**	43,041
TOTAL EQUITY		**425,252**	432,835
LIABILITIES			
Borrowings	22	**45,011**	53,751
Deferred tax liabilities	14	**9,986**	8,177
Other long term liabilities and provisions	24	**44,135**	37,385
TOTAL NON-CURRENT LIABILITIES		**99,132**	99,313
Trade and other payables	25	**54,571**	53,291
Borrowings	22	**23,561**	10,398
Taxation		**3,798**	4,013
Dividend payable		**30,000**	-
TOTAL CURRENT LIABILITIES		**111,930**	67,702
TOTAL LIABILITIES		**211,062**	167,015
TOTAL EQUITY AND LIABILITIES		**636,314**	599,850

The notes set out on pages 151 to 277 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF PROFIT OR **LOSS AND OTHER COMPREHENSIVE INCOME**

for the year ended 31 December 2018

In RM Mil	Note	2018	2017
Revenue	26	**250,976**	223,622
Cost of revenue		**(158,080)**	(140,194)
Gross profit		**92,896**	83,428
Selling and distribution expenses		**(7,022)**	(6,277)
Administration expenses		**(12,139)**	(10,823)
Net impairment write-back		**4,753**	557
Other expenses		**(2,563)**	(5,350)
Other income		**4,828**	6,706
Operating profit	27	**80,753**	68,241
Financing costs		**(4,707)**	(3,694)
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures		**684**	105
Profit before taxation		**76,730**	64,652
Tax expense	28	**(21,420)**	(19,134)
Profit for the year		**55,310**	45,518
Other comprehensive (expenses)/income			
Items that will not be reclassified subsequently to profit or loss			
Net changes in fair value of equity investments at fair value through other comprehensive income ("OCI")		**(140)**	-
Items that may be reclassified subsequently to profit or loss			
Net movements from exchange differences		**465**	(14,143)
Available-for-sale financial assets:			
- Changes in fair value		**-**	(1,285)
- Transfer to profit or loss		**-**	(232)
Others		**(373)**	346
Total other comprehensive expenses for the year, net of tax		**(48)**	(15,314)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**55,262**	30,204
Profit attributable to:			
Shareholders of the Company		**47,865**	37,660
Non-controlling interests		**7,445**	7,858
PROFIT FOR THE YEAR		**55,310**	45,518
Total comprehensive income attributable to:			
Shareholders of the Company		**47,546**	24,579
Non-controlling interests		**7,716**	5,625
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**55,262**	30,204

The notes set out on pages 151 to 277 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF **CHANGES IN EQUITY**

for the year ended 31 December 2018

In RM Mil	Note	Share Capital	Capital Reserves	Foreign Currency Translation Reserve	Available-for-sale Reserve
		Attributable to shareholders of the Company			
		Non-distributable			
Balance at 1 January 2017		100	13,989	43,232	2,792
Net movements from exchange differences		-	-	(11,898)	-
Available-for-sale financial assets:					
- Changes in fair value		-	-	-	(1,285)
- Transfer to profit or loss		-	-	-	(232)
Other comprehensive income		-	334	-	-
Total other comprehensive income/ (expenses) for the year		-	334	(11,898)	(1,517)
Profit for the year		-	-	-	-
Total comprehensive income/ (expenses) for the year		-	334	(11,898)	(1,517)
Additional issuance of shares to non-controlling interests		-	-	-	-
Changes in ownership interest in subsidiaries		-	(13)	(67)	-
Redemption of redeemable preference shares in a subsidiary		-	115	-	-
Dividends	29	-	-	-	-
Total transactions with shareholders		-	102	(67)	-
Balance at 31 December 2017		100	14,425	31,267	1,275

continue to next page

CONSOLIDATED STATEMENT OF **CHANGES IN EQUITY**

for the year ended 31 December 2018

In RM Mil	Note	General Reserve	Retained Profits	Total	Non-controlling Interests	Total Equity
		Attributable to shareholders of the Company				
		Distributable				
Balance at 1 January 2017		12,000	308,328	380,441	43,262	423,703
Net movements from exchange differences		-	-	(11,898)	(2,245)	(14,143)
Available-for-sale financial assets:						
- Changes in fair value		-	-	(1,285)	-	(1,285)
- Transfer to profit or loss		-	-	(232)	-	(232)
Other comprehensive income		-	-	334	12	346
Total other comprehensive income/ (expenses) for the year		-	-	(13,081)	(2,233)	(15,314)
Profit for the year		-	37,660	37,660	7,858	45,518
Total comprehensive income/ (expenses) for the year		-	37,660	24,579	5,625	30,204
Additional issuance of shares to non-controlling interests		-	-	-	56	56
Changes in ownership interest in subsidiaries		-	854	774	868	1,642
Redemption of redeemable preference shares in a subsidiary		-	(115)	-	-	-
Dividends	29	-	(16,000)	(16,000)	(6,770)	(22,770)
Total transactions with shareholders		-	(15,261)	(15,226)	(5,846)	(21,072)
Balance at 31 December 2017		12,000	330,727	389,794	43,041	432,835

continued from previous page

CONSOLIDATED STATEMENT OF **CHANGES IN EQUITY**

for the year ended 31 December 2018

		Attributable to shareholders of the Company				
		Non-distributable				
In RM Mil	Note	Share Capital	Capital Reserves	Foreign Currency Translation Reserve	Available-for-sale Reserve	Fair Value Through OCI Reserve
Balance at 1 January 2018						
- As previously reported		100	14,425	31,267	1,275	-
- Effect of the adoption of MFRS 9	46	-	-	-	(1,275)	65
At 1 January 2018, restated		100	14,425	31,267	-	65
Net movements from exchange differences		-	-	218	-	-
Fair value through other comprehensive income financial assets:						
- Changes in fair value		-	-	-	-	(140)
- Transfer to retained earnings upon disposal		-	-	-	-	-
Other comprehensive (expenses)/income		-	(397)	-	-	-
Total other comprehensive (expenses)/income for the year, net of tax		-	(397)	218	-	(140)
Profit for the year		-	-	-	-	-
Total comprehensive (expenses)/ income for the year		-	(397)	218	-	(140)
Additional issuance of shares to non-controlling interests		-	-	-	-	-
Changes in ownership interest in subsidiaries		-	-	(78)	-	-
Disposal of subsidiaries		-	-	(162)	-	-
Redemption of redeemable preference shares in subsidiaries		-	163	-	-	-
Dividends	29	-	-	-	-	-
Total transactions with shareholders		-	163	(240)	-	-
Balance at 31 December 2018		100	14,191	31,245	-	(75)

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The notes set out on pages 151 to 277 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF **CHANGES IN EQUITY**

for the year ended 31 December 2018

		Attributable to shareholders of the Company				
		Distributable				
In RM Mil	Note	General Reserve	Retained Profits	Total	Non-controlling Interests	Total Equity
Balance at 1 January 2018						
- As previously reported		12,000	330,727	389,794	43,041	432,835
- Effect of the adoption of MFRS 9	46	-	769	(441)	(61)	(502)
At 1 January 2018, restated		12,000	331,496	389,353	42,980	432,333
Net movements from exchange differences		-	-	218	247	465
Fair value through other comprehensive income financial assets:						
- Changes in fair value		-	-	(140)	-	(140)
Other comprehensive (expenses)/income		-	-	(397)	24	(373)
Total other comprehensive (expenses)/income for the year, net of tax		-	-	(319)	271	(48)
Profit for the year		-	47,865	47,865	7,445	55,310
Total comprehensive (expenses)/ income for the year		-	47,865	47,546	7,716	55,262
Additional issuance of shares to non-controlling interests		-	-	-	21	21
Changes in ownership interest in subsidiaries		-	(188)	(266)	67	(199)
Disposal of subsidiaries		-	-	(162)	-	(162)
Redemption of redeemable preference shares in subsidiaries		-	(163)	-	(5)	(5)
Dividends	29	-	(56,000)	(56,000)	(5,998)	(61,998)
Total transactions with shareholders		-	(56,351)	(56,428)	(5,915)	(62,343)
Balance at 31 December 2018		12,000	323,010	380,471	44,781	425,252

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The notes set out on pages 151 to 277 are an integral part of these financial statements.

CONSOLIDATED STATEMENT **OF CASH FLOWS**

for the year ended 31 December 2018

In RM Mil	Note	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before taxation		**76,730**	64,652
Adjustments for:			
Depreciation of property, plant and equipment and investment properties		**31,324**	27,892
Amortisation of intangible assets and prepaid lease payments		**3,003**	2,633
Net impairment (write-back)/losses on:			
- Property, plant and equipment		**(3,331)**	(347)
- Intangible assets		**20**	1,745
- Loan and advances to associates and a joint venture		**101**	88
- Receivables		**(1,592)**	295
- Investments in associates and a joint venture		**65**	(601)
- Other investments		**4**	8
Net impairment/write-off on well costs		**653**	703
Net inventories written down to net realisable value		**108**	135
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures		**(684)**	(105)
Property, plant and equipment written off		**95**	375
Gain on disposal of investments in subsidiaries, associates, joint ventures, other investments and property, plant and equipment		**(1,918)**	(850)
Loss on disposal of other investments and property, plant and equipment		**431**	33
Bad debts written off		**16**	26
Net loss/(gain) on derivatives		**31**	(64)
Unrealised loss/(gain) on foreign exchange		**1,082**	(834)
Interest income		**(6,509)**	(4,389)
Financing costs		**4,707**	3,694
Net change in provisions		**11,608**	(3,656)
Operating profit before changes in working capital		**115,944**	91,433
Change in trade and other receivables		**(4,337)**	107
Change in trade inventories		**456**	(1,460)
Change in trade and other payables		**(3,333)**	2,314
Cash generated from operations		**108,730**	92,394
Interest income from fund and other investments		**3,845**	3,095
Interest expenses paid		**(2,967)**	(2,901)
Taxation paid		**(23,288)**	(16,927)
Net cash generated from operating activities		**86,320**	75,661

continue to next page

The notes set out on pages 151 to 277 are an integral part of these financial statements.

CONSOLIDATED STATEMENT **OF CASH FLOWS**

for the year ended 31 December 2018

In RM Mil	Note	2018	2017
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash used in investing activities	30	**(41,129)**	(42,563)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	31	**(2,162)**	(19,248)
NET INCREASE IN CASH AND CASH EQUIVALENTS		**43,029**	13,850
INCREASE IN CASH AND CASH EQUIVALENTS RESTRICTED		**(39)**	(74)
NET FOREIGN EXCHANGE DIFFERENCES		**1,904**	(7,003)
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		**127,564**	120,791
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**172,458**	127,564
CASH AND CASH EQUIVALENTS			
Cash and bank balances and deposits	18	**173,576**	128,209
Bank overdrafts	22	**(455)**	(21)
		173,121	128,188
Less: Cash and cash equivalents restricted	18	**(663)**	(624)
		172,458	127,564

continued from previous page

The notes set out on pages 151 to 277 are an integral part of these financial statements.

STATEMENT OF **FINANCIAL POSITION**

as at 31 December 2018

In RM Mil	Note	2018	2017
ASSETS			
Property, plant and equipment	3	**16,353**	14,180
Investments in subsidiaries	7	**152,807**	136,704
Investments in associates	8	**302**	302
Investments in joint ventures	9	**992**	992
Long term receivables	11	**115,959**	117,595
Fund and other investments	12	**1,073**	76
Deferred tax assets	14	**9,350**	5,678
TOTAL NON-CURRENT ASSETS		**296,836**	275,527
Trade and other inventories	15	**100**	281
Trade and other receivables	16	**23,462**	20,384
Fund and other investments	12	**1,690**	1,380
Cash and cash equivalents	18	**91,822**	65,564
TOTAL CURRENT ASSETS		**117,074**	87,609
TOTAL ASSETS		**413,910**	363,136
EQUITY			
Share capital	19	**100**	100
Reserves	20	**283,383**	288,622
TOTAL EQUITY		**283,483**	288,722
LIABILITIES			
Borrowings	22	**26,773**	38,360
Other long term liabilities and provisions	24	**34,775**	14,029
TOTAL NON-CURRENT LIABILITIES		**61,548**	52,389
Trade and other payables	25	**24,189**	19,894
Borrowings	22	**12,424**	-
Taxation		**2,266**	2,131
Dividend payable		**30,000**	-
TOTAL CURRENT LIABILITIES		**68,879**	22,025
TOTAL LIABILITIES		**130,427**	74,414
TOTAL EQUITY AND LIABILITIES		**413,910**	363,136

The notes set out on pages 151 to 277 are an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS AND **OTHER COMPREHENSIVE INCOME**

for the year ended 31 December 2018

In RM Mil	Note	2018	2017
Revenue	26	**130,820**	98,175
Cost of revenue		**(74,312)**	(57,103)
Gross profit		**56,508**	41,072
Selling and distribution expenses		**(467)**	(490)
Administration expenses		**(6,031)**	(4,508)
Other expenses		**(259)**	(9,208)
Other income		**10,311**	10,851
Operating profit	27	**60,062**	37,717
Financing costs		**(3,018)**	(2,606)
Profit before taxation		**57,044**	35,111
Tax expense	28	**(6,046)**	(8,939)
Profit for the year		**50,998**	26,172
Other comprehensive expenses			
Items that may be reclassified subsequently to profit or loss			
Available-for-sale financial assets:			
- Changes in fair value		**-**	2
- Transfer to profit or loss upon disposal		**-**	(22)
Total other comprehensive expenses for the year		**-**	(20)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**50,998**	26,152

The notes set out on pages 151 to 277 are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2018

In RM Mil	Note	Non-distributable Share Capital	Non-distributable Available-for-sale Reserve	Distributable General Reserve	Distributable Retained Profits	Total Equity
Balance at 1 January 2017		100	30	12,000	266,440	278,570
Available-for-sale financial assets:						
- Changes in fair value		-	2	-	-	2
- Transfer to profit or loss upon disposal		-	(22)	-	-	(22)
Total other comprehensive expenses for the year		-	(20)	-	-	(20)
Profit for the year		-	-	-	26,172	26,172
Total comprehensive (expenses)/income for the year		-	(20)	-	26,172	26,152
Dividends representing transaction with shareholders of the Company	29	-	-	-	(16,000)	(16,000)
Balance at 31 December 2017		100	10	12,000	276,612	288,722
Balance at 1 January 2018						
- As previously reported		**100**	**10**	**12,000**	**276,612**	**288,722**
- Effect of the adoption of MFRS 9	46	**-**	**(10)**	**-**	**(227)**	**(237)**
At 1 January 2018, restated		**100**	**-**	**12,000**	**276,385**	**288,485**
Profit for the year		**-**	**-**	**-**	**50,998**	**50,998**
Total comprehensive income for the year		**-**	**-**	**-**	**50,998**	**50,998**
Dividends representing transaction with shareholders of the Company	29	**-**	**-**	**-**	**(56,000)**	**(56,000)**
Balance at 31 December 2018		**100**	**-**	**12,000**	**271,383**	**283,483**

The notes set out on pages 151 to 277 are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

for the year ended 31 December 2018

In RM Mil	Note	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before taxation		**57,044**	35,111
Adjustments for:			
Depreciation of property, plant and equipment		**2,939**	1,456
Loss on derivative valuation		**27**	231
Net changes in fair value of:			
- Cess receivables		**(3,019)**	-
- Contract liabilities		**(444)**	-
Net impairment losses/(write-back) on:			
- Trade and other receivables		**172**	198
- Loan and advances to subsidiaries		**(38)**	-
- Property, plant and equipment		**170**	(1,789)
- Investment in subsidiaries		**105**	-
Net write off on property, plant and equipment		**1**	-
Net change in provisions		**(1,314)**	(3,656)
Interest income		**(7,060)**	(6,934)
Financing costs		**3,018**	2,606
Gain on partial disposal of subsidiaries and other investments		**(112)**	(932)
Contribution to abandonment cess fund		**-**	(13,352)
Net foreign exchange		**184**	8,957
Dividend income		**(32,226)**	(16,377)
Operating profit before changes in working capital		**19,447**	5,519
Change in trade and other receivables		**(2,666)**	(6,054)
Change in trade inventories		**181**	(142)
Change in trade and other payables		**4,258**	5,179
Cash generated from operations		**21,220**	4,502
Interest income received		**6,313**	7,873
Interest expenses paid		**(1,819)**	(1,417)
Taxation paid		**(9,636)**	(6,656)
Net cash generated from operating activities		**16,078**	4,302

continue to next page

The notes set out on pages 151 to 277 are an integral part of these financial statements.

STATEMENT OF **CASH FLOWS**

for the year ended 31 December 2018

In RM Mil	Note	2018	2017
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash generated from investing activities	30	**36,286**	11,102
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	31	**(26,000)**	(16,000)
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**26,364**	(596)
NET FOREIGN EXCHANGE DIFFERENCES		**(106)**	(2,266)
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		**65,564**	68,426
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**91,822**	65,564
CASH AND CASH EQUIVALENTS			
Cash and bank balances and deposits	18	**91,822**	65,564

continued from previous page

The notes set out on pages 151 to 277 are an integral part of these financial statements.

NOTES TO THE **FINANCIAL STATEMENTS**

31 December 2018

1. BASIS OF PREPARATION

1.1 Statement of compliance

The financial statements of the Group and of the Company have been prepared in accordance with Malaysian Financial Reporting Standards ("MFRS"), International Financial Reporting Standards and the Companies Act 2016 in Malaysia.

As of 1 January 2018, the Group and the Company had adopted new MFRS, amendments to MFRS and IC Interpretation (collectively referred to as "pronouncements") that have been issued by the Malaysian Accounting Standard Board ("MASB") as described fully in note 42.

MASB has also issued new and revised pronouncements which are not yet effective for the Group and the Company and therefore, have not been adopted in these financial statements. These pronouncements including their impact on the financial statements in the period of initial application are set out in note 42. New and revised pronouncement that is not relevant to the operations of the Group and of the Company is also set out in note 42.

The financial statements were approved and authorised for issue by the Board of Directors on 28 February 2019.

1.2 Basis of measurement

The financial statements of the Group and of the Company have been prepared on historical cost basis except that, as disclosed in the accounting policies below, certain items are measured at fair value.

1.3 Functional and presentation currency

The individual financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The Group's and the Company's financial statements are presented in Ringgit Malaysia, which is the Company's functional currency.

1.4 Use of estimates and judgments

The preparation of financial statements in conformity with MFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

In particular, information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements are described in the following notes:

(i) Note 3 : Property, Plant and Equipment;
(ii) Note 10 : Intangible Assets;
(iii) Note 14 : Deferred Tax;
(iv) Note 24 : Other Long Term Liabilities and Provisions;
(v) Note 26 : Revenue; and
(vi) Note 40 : Financial Instruments.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to all periods presented in these financial statements and have been applied consistently by the Group entities, unless otherwise stated.

Arising from the adoption of MFRS 9 Financial Instruments and MFRS 15 *Revenue from Contracts with Customers*, there are changes to the accounting policies of:

(i) financial instruments;
(ii) revenue; and
(iii) impairment

as compared to those adopted in previous financial statements. The impact arising from the changes are disclosed in note 42.

2.1 Basis of consolidation

Subsidiaries

Subsidiaries are entities, including structured entities, controlled by the Company. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Potential voting rights are considered when assessing control only when such rights are substantive. The Group considers it has de facto power over an investee when, despite not having the majority of voting rights, it has the current ability to direct the activities of the investee that significantly affect the investee's return.

The financial statements of subsidiaries are included in the consolidated financial statements of the Group from the date that control commences until the date that control ceases.

All inter-company transactions are eliminated on consolidation and revenue and profits relate to external transactions only. Unrealised losses resulting from inter-company transactions are also eliminated unless cost cannot be recovered.

Business combination

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed are measured at their fair values at the acquisition date. The cost of an acquisition is measured as the aggregate of the fair value of the consideration transferred and the amount of any non-controlling interests in the acquiree. Non-controlling interests are stated either at fair value or at the proportionate share of the acquiree's identifiable net assets at the acquisition date.

When a business combination is achieved in stages, the Group remeasures its previously held non-controlling equity interest in the acquiree at fair value at the acquisition date, with any resulting gain or loss recognised in the profit or loss. Increase in the Group's ownership interest in an existing subsidiary is accounted for as equity transactions with differences between the fair value of consideration paid and the Group's proportionate share of net assets acquired, recognised directly in equity.

The Group measures goodwill as the excess of the cost of an acquisition and the fair value of any previously held interest in the acquiree over the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date. When the excess is negative, a bargain purchase gain is recognised immediately in profit or loss.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.1 Basis of consolidation (continued)

Business combinations (continued)

Goodwill arising from business combinations prior to 1 October 2009 is stated at the previous carrying amount less subsequent impairments, pursuant to the adoption of MFRS framework by the Group in the financial year ended 31 December 2012.

Transaction costs, other than those associated with the issuance of debt or equity securities, that the Group incurs in connection with a business combination, are expensed as incurred.

Business combinations arising from transfers of interests in entities that are under the control of the shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the earliest comparative period presented, or, if later, at the date that common control was established; for this purpose comparatives are restated. The assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group controlling shareholder's consolidated financial statements. The components of equity of the acquired entities are added to the same components within Group equity and any resulting gain or loss is recognised directly in equity.

Non-controlling interests

Non-controlling interests at the end of the reporting period, being the portion of the net assets of subsidiaries attributable to equity interests that are not owned by the Company, whether directly or indirectly through subsidiaries, are presented in the consolidated statement of financial position and statement of changes in equity within equity, separately from equity attributable to the shareholders of the Company. Non-controlling interests in the results of the Group are presented in the consolidated statement of profit or loss and other comprehensive income as an allocation of the profit or loss and total comprehensive income for the year between the non-controlling interests and shareholders of the Company.

Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

The Group treats all changes in its ownership interest in a subsidiary that do not result in a loss of control as equity transactions between the Group and its non-controlling interest holders. Any difference between the Group's share of net assets before and after the change, and any consideration received or paid, is adjusted to or against Group reserves.

Loss of control

Upon loss of control of a subsidiary, the Group derecognises the assets and liabilities of the former subsidiary, any non-controlling interests and the other components of equity related to the former subsidiary from the consolidated statement of financial position. Any surplus or deficit arising on the loss of control is recognised in profit or loss. If the Group retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost, except when the retained interest is a joint arrangement or associate where such interest is measured at its carrying amount. Subsequently, it is accounted for as an equity-accounted investee or as a fair value through other comprehensive income financial asset depending on the level of influence retained.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.2 Associates

Associates are entities in which the Group has significant influence including representation on the Board of Directors, but not control or joint control, over the financial and operating policies of the investee company.

Associates are accounted for in the consolidated financial statements using the equity method. The consolidated financial statements include the Group's share of post-acquisition profits or losses and other comprehensive income of the equity-accounted associates, after adjustments to align the accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases.

The Group's share of post-acquisition reserves and retained profits less losses is added to the carrying value of the investment in the consolidated statement of financial position. These amounts are taken from the latest audited financial statements or management financial statements of the associates.

When the Group's share of post-acquisition losses exceeds its interest in an equity accounted associate, the carrying amount of that interest (including any long term investments) is reduced to nil and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the associate.

When the Group ceases to have significant influence over an associate, it is accounted for as a disposal of the entire interest in that associate, with the resulting gain or loss being recognised in profit or loss. Any retained interest in the former associate at the date when significant influence is lost is re-measured at fair value and this amount is regarded as the initial carrying amount of a financial asset.

When the Group's interest in an associate decreases but does not result in loss of significant influence, any retained interest is not re-measured. Any gain or loss arising from the decrease in interest is recognised in profit or loss. Any gains or losses previously recognised in other comprehensive income are also reclassified proportionately to the profit or loss if that gain or loss would be required to be reclassified to profit or loss on the disposal of the related assets and liabilities.

Unrealised profits arising from transactions between the Group and its associates are eliminated to the extent of the Group's interests in the associates. Unrealised losses on such transactions are also eliminated partially, unless cost cannot be recovered.

2.3 Joint arrangements

Joint arrangements are arrangements of which the Group has joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements' returns.

Joint arrangements are classified as either joint operation or joint venture. A joint arrangement is classified as joint operation when the Group or the Company has rights to the assets and obligations for the liabilities relating to an arrangement. The Group and the Company account for each of its share of the assets, liabilities and transactions, including its share of those held or incurred jointly with the other investors, in relation to the joint operation. A joint arrangement is classified as joint venture when the Group has rights only to the net assets of the arrangement. The Group accounts for its interest in the joint venture using the equity method as described in note 2.2.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.4 Property, plant and equipment and depreciation

Freehold land and projects-in-progress are stated at cost less accumulated impairment losses, if any and are not depreciated. Other property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses, if any.

Cost includes expenditures that are directly attributable to the acquisition of the assets and any other costs directly attributable to bringing the assets to working condition for their intended use, and the costs of dismantling and removing the items and restoring the site on which they are located. The cost of self-constructed assets also includes the cost of material and direct labour. For qualifying assets, borrowing costs are capitalised in accordance with the accounting policy on borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When the use of a property changes from owner-occupied to investment property, the property is reclassified as investment property at cost.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

The cost of replacing a component of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the component will flow to the Group or the Company and its cost can be measured reliably. The carrying amount of the replaced item of property, plant and equipment is derecognised with any corresponding gain or loss recognised in the profit or loss accordingly. The costs of the day-to-day servicing of property, plant and equipment are recognised in the profit or loss as incurred.

Depreciation for property, plant and equipment other than freehold land, oil and gas properties and projects-in-progress, is recognised in the profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. Property, plant and equipment are not depreciated until the assets are ready for their intended use.

Amortisation of producing oil and gas properties is computed based on the unit of production method using total proved reserves for capitalised acquisition costs and total proved developed reserves for capitalised exploration and development costs.

Lease properties are depreciated over the lease term or the estimated useful lives, whichever is shorter. Leasehold land is depreciated over the lease term.

The estimated useful lives of the other property, plant and equipment are as follows:

Buildings	10 - 50 years
Plant and equipment	3 - 67 years
Office equipment, furniture and fittings	5 - 10 years
Computer software and hardware	5 years
Motor vehicles	3 - 5 years
Vessels	20 - 40 years

Estimates in respect of certain items of property, plant and equipment were revised during the year (refer note 3).

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.4 Property, plant and equipment and depreciation (continued)

The depreciable amount is determined after deducting residual value. The residual value, useful life and depreciation method are reviewed at each financial year end to ensure that the amount, period and method of depreciation are consistent with previous estimates and the expected pattern of consumption of the future economic benefits embodied in the items of property, plant and equipment.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. The difference between the net disposal proceeds, if any, and the net carrying amount is recognised in the profit or loss.

2.5 Investment properties

Investment properties are properties which are owned either to earn rental income or for capital appreciation or for both. Properties that are occupied by the companies in the Group are accounted for as owner-occupied rather than as investment properties.

Freehold land and projects-in-progress are stated at cost and are not depreciated. Other investment properties are stated at cost less accumulated depreciation and accumulated impairment losses, if any, consistent with the accounting policy for property, plant and equipment as stated in note 2.4.

Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed investment property includes the cost of materials and direct labour, any other costs directly attributable to bringing the investment property to a working condition for its intended use and capitalised borrowing costs.

Depreciation is recognised in the profit or loss on a straight-line basis over their estimated useful lives ranging between 10 and 50 years for buildings.

An investment property is derecognised on its disposal, or when it is permanently withdrawn from use and no future economic benefits are expected from its disposal. The difference between net disposal proceeds and the carrying amount is recognised in the profit or loss in the period in which the item is derecognised.

2.6 Land held for development

Land held for development consists of land or such portions thereof on which no development activities have been carried out or where development activities are not expected to be completed within the normal operating cycle. Such land is classified as non-current asset and is stated at the lower of cost and net realisable value consistent with the accounting policy for inventories as stated in note 2.16.

Cost includes acquisition cost of land and attributable development expenditure. Cost associated with the acquisition of land includes the purchase price of the land, professional fees, stamp duties, commissions, conversion fees and other relevant levies. Development expenditure includes the cost for development of main infrastructure works.

Land held for development is reclassified as properties under development at the point when development activities have commenced and where it can be demonstrated that the development activities can be completed within the normal operating cycle. Properties under development are, in turn, reclassified as developed properties held for sale upon completion of the development activities.

Properties under development and developed properties held for sale are recognised as trade and other inventories in current assets. The accounting policy is described separately in note 2.16.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.7 Leased assets

A lease arrangement is accounted for as finance or operating lease in accordance with the accounting policy as stated below. When the fulfilment of an arrangement is dependent on the use of a specific asset and the arrangement conveys a right to use the asset, it is accounted for as a lease in accordance with the accounting policy below although the arrangement does not take the legal form of a lease.

Finance lease

A lease is recognised as a finance lease if it transfers substantially to the Group and the Company all the risks and rewards incidental to ownership. Upon initial recognition, the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset. The corresponding liability is included in the statement of financial position as non-current liabilities.

Minimum lease payments made under finance leases are apportioned between the finance costs and the reduction of the outstanding liability. Finance costs, which represent the difference between the total leasing commitments and the fair value of the assets acquired, are recognised in the profit or loss and allocated over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each accounting period.

Contingent lease payments, if any, are accounted for by revising the minimum lease payments over the remaining term of the lease when the lease adjustment is confirmed.

Leasehold land which in substance is a finance lease is classified as property, plant and equipment, or as investment property if held to earn rental income or for capital appreciation or for both.

Operating lease

All leases that do not transfer substantially to the Group and the Company all the risks and rewards incidental to ownership are classified as operating leases, and the leased assets are not recognised on the Group's and the Company's statements of financial position.

Payments made under operating leases are recognised as an expense in the profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognised as a reduction of rental expense over the lease term on a straight-line basis. Contingent rentals are charged to profit or loss in the reporting period in which they are incurred.

Leasehold land which in substance is an operating lease is classified as prepaid lease payments.

Prepaid lease payments

Prepaid rental and leasehold land which in substance is an operating lease are classified as prepaid lease payments. The payments made on entering into a lease arrangement or acquiring a leasehold land are accounted for as prepaid lease payments that are amortised over the lease term in accordance with the pattern of benefits provided.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.8 Investments

Long term investments in subsidiaries, associates and joint ventures are stated at cost less impairment loss, if any, in the Company's financial statements unless the investment is classified as held for sale or distribution. The cost of investments includes transaction costs.

The carrying amount of these investments includes fair value adjustments on shareholder's loans and advances, if any (note 2.12(i)).

2.9 Intangible assets

Goodwill

Goodwill arising from business combinations is initially measured at cost as described in note 2.1. Following the initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is not amortised but instead, it is reviewed for impairment, annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

In respect of equity-accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment. The entire carrying amount of the investment is reviewed for impairment when there is objective evidence of impairment.

Exploration expenditure

Intangible assets also include expenditure on the exploration for and evaluation of oil and natural gas resources (hereinafter collectively referred to as "exploration expenditure"). The accounting policy for exploration expenditure is described separately in note 2.10.

Other intangible assets

Intangible assets other than goodwill and exploration expenditure are measured on initial recognition at cost. The costs of intangible assets acquired in a business combination are their fair values as at the date of acquisition.

Following initial recognition, intangible assets with finite useful lives are carried at cost less accumulated amortisation and any accumulated impairment losses.

Amortisation for intangible assets with finite useful lives is recognised in the profit or loss on a straight-line basis over the estimated economic useful lives. Certain recoverable expenditure incurred under a service contract is amortised based on unit of production method, which is calculated based on the entitlement of production for the period, over the entitlement of production for the period and estimated entitlement for the remaining life of the asset.

The amortisation method and the useful life for intangible assets are reviewed at least at each reporting date. Intangible assets are assessed for impairment whenever there is an indication that the intangible assets may be impaired.

Intangible assets with indefinite useful lives are carried at cost less accumulated impairment losses. These intangible assets are reviewed for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.10 Exploration and development expenditure

The Group follows the successful efforts method of accounting for the exploration and development expenditure.

Exploration expenditure

Costs directly associated with an exploration well, including license acquisition, costs of acquiring undeveloped land and drilling costs, are initially capitalised as intangible assets until the results have been evaluated.

If a well does not result in successful discovery of economically recoverable volume of hydrocarbons or the costs of undeveloped land that expires, such costs are impaired or written off. If hydrocarbons are found and, subject to further appraisal activity which may include the drilling of further wells, are likely to be capable of commercial development under prevailing economic conditions, the costs continue to be carried as intangible assets. Such costs are reviewed at least once a year to determine whether the reserves found or appraised remain economically viable. When this is no longer the case, the costs are impaired or written off.

Where development plan is commercially viable and approved by the relevant authorities, the related exploration and evaluation costs are transferred to projects-in-progress in property, plant and equipment.

Development expenditure

Development expenditure comprises all costs incurred in bringing a field to commercial production and is capitalised as incurred. The amount capitalised includes attributable interests and other financing costs incurred on exploration and development before commencement of production.

Upon commencement of production, the exploration and development expenditure initially capitalised as projects-in-progress are transferred to oil and gas properties, and are depreciated as described in the accounting policy for property, plant and equipment (note 2.4).

2.11 Non-current assets held for sale

Non-current assets and disposal groups comprising assets and liabilities that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition.

Immediately before classification as held for sale, the assets (or all the assets and liabilities in a disposal group) are remeasured in accordance with the Group's applicable accounting policies. Thereafter, on initial classification as held for sale, the assets or disposal groups are measured at the lower of carrying amount and fair value less cost to sell. Any differences are charged to the profit or loss.

Intangible assets, property, plant and equipment and investment properties once classified as held for sale are not amortised nor depreciated. In addition, equity accounting of equity-accounted investees ceases once classified as held for sale.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments

Unless specifically disclosed below, the Group and the Company generally applied the following accounting policies retrospectively. Nevertheless, as permitted by MFRS 9 *Financial Instruments*, the Group and the Company have elected not to restate the comparatives.

Recognition and initial measurement

A financial instrument is recognised in the statement of financial position when, and only when, the Group or the Company becomes a party to the contractual provisions of the instrument.

Current financial year

A financial asset (unless it is a receivable without a significant financing component) and a financial liability is measured at fair value plus or minus, in the case of a financial instrument not at fair value through profit or loss, any directly attributable transaction cost incurred at the acquisition or issuance of the financial instrument. A receivable that does not contain a significant financing component is initially measured at the transaction price.

No change to the accounting policy in relation to regular way purchases or sales (purchases or sales under a contract whose terms require delivery of financial assets within a time frame established by regulation or convention in the marketplace concerned) and fair value adjustments on shareholder's loans and advances.

Previous financial year

Financial instruments were recognised initially, at its fair value plus or minus, in the case of a financial instrument not at fair value through profit or loss, any directly attributable transactions incurred at the acquisition or issuance of the financial instrument.

Regular way purchases or sales were recognised on the trade date i.e. the date that the Group and the Company commit to purchase or sell the financial asset.

Fair value adjustments on shareholder's loans and advances at initial recognition, if any, were added to the carrying value of investments in the Company's financial statements.

Classification and subsequent measurement

(i) Financial assets

Current financial year

Upon adoption of MFRS 9 *Financial Instruments*, financial assets are classified as measured at amortised cost, fair value through other comprehensive income ("FVOCI") and fair value through profit or loss ("FVTPL"), as appropriate.

The Group and the Company determine the classification of financial assets at initial recognition and are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(i) Financial assets (continued)

Current financial year (continued)

(a) Amortised cost

Amortised cost category comprises financial assets that are held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The financial assets are not designated as at fair value through profit or loss. Subsequent to initial recognition, these financial assets are measured at amortised cost using the effective interest method (note 2.12 (vi)). Interest income and foreign exchange gains and losses are recognised in profit or loss.

(b) Fair value through other comprehensive income

This category comprises debt instruments where it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The debt instruments are not designated as at fair value through profit or loss.

Fair value through other comprehensive income category also comprises investment in equity that are not held for trading, and the Group and the Company irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

Financial assets categorised as fair value through other comprehensive income are subsequently measured at fair value with unrealised gains and losses recognised directly in other comprehensive income and accumulated under fair value through other comprehensive income reserve in equity. For debt instruments, when the investment is derecognised or determined to be impaired, the cumulative gain or loss previously recorded in equity is reclassified to the profit or loss. For equity instruments, the gains or losses are never reclassified to profit or loss.

(c) Financial assets at fair value through profit or loss

All financial assets not classified as measured at amortised cost or fair value through other comprehensive income as described above are measured at fair value through profit or loss. This includes derivative financial assets (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument as per note 2.12(iii) and (iv)). On initial recognition, the Group and the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at fair value through other comprehensive income as at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets categorised as fair value through profit or loss are subsequently measured at their fair value with gains or losses recognised in the profit or loss. The methods used to measure fair value are stated in note 2.25.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(i) **Financial assets (continued)**

Current financial year (continued)

(c) Financial assets at fair value through profit or loss (continued)

All financial assets, except for those measured at fair value through profit or loss and equity investments measured at fair value through other comprehensive income, are subject to impairment (see note 2.13(i)).

Previous financial year

In the previous financial year, financial assets of the Group and of the Company were classified and measured under MFRS 139 *Financial Instruments: Recognition and Measurement as follows:*

(a) Financial assets at fair value through profit or loss

Fair value through profit or loss category comprised financial assets that were held for trading, including derivatives (except for a derivative that was a financial guarantee contract or a designated and effective hedging instrument), contingent consideration in a business combination and financial assets that were specifically designated into this category upon initial recognition.

Financial assets categorised as fair value through profit or loss were subsequently measured at their fair value with gains or losses recognised in the profit or loss. The methods used to measure fair value are stated in note 2.25.

(b) Loans and receivables

Loans and receivables category comprised debt instruments that were not quoted in an active market. Subsequent to initial recognition, financial assets categorised as loans and receivables were measured at amortised cost using the effective interest method (note 2.12(vi)).

(c) Held-to-maturity

The Group and the Company did not have any held-to-maturity investment as at 31 December 2017.

(d) Available-for-sale financial assets

Available-for-sale category comprised investment in equity and debt securities instruments that were not held for trading.

Investments in equity instruments that did not have a quoted market price in an active market and whose fair value cannot be reliably measured were measured at cost. Other financial assets categorised as available-for-sale were subsequently measured at fair value with unrealised gains or losses recognised directly in other comprehensive income and accumulated under available-for-sale reserve in equity until the investment was derecognised or determined to be impaired, at which time the cumulative gain or loss previously recorded in equity was reclassified to the profit or loss.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(i) **Financial assets (continued)**

Previous financial year (continued)

All financial assets, except for those measured at fair value through profit or loss, were subject to review for impairment (see note 2.13(i)).

(ii) **Financial liabilities**

Current financial year

The categories of financial liabilities at initial recognition are as follows:

(a) Financial liabilities at fair value through profit or loss

Fair value through profit or loss category comprises financial liabilities that are derivatives (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument), contingent consideration in a business combination and financial liabilities that are specifically designated into this category upon initial recognition.

Financial liabilities categorised as fair value through profit or loss are subsequently measured at their fair value with gains or losses recognised in the profit or loss.

(b) Amortised cost

Subsequent to initial recognition, other financial liabilities are subsequently measured at amortised cost using the effective interest method (see note 2.12(vi)).

Gains and losses are recognised in the profit or loss through the amortisation process as well as when the liabilities are derecognised.

Previous financial year

In the previous financial year, financial liabilities of the Group and of the Company were subsequently measured at fair value through profit or loss or at amortised cost.

(a) Financial liabilities at fair value through profit or loss

Fair value through profit or loss category comprised financial liabilities that were derivatives (except for a derivative that was a financial guarantee contract or a designated and effective hedging instrument), contingent consideration in a business combination and financial liabilities that were specifically designated into this category upon initial recognition.

Financial liabilities categorised as fair value through profit or loss were subsequently measured at their fair value with gains or losses recognised in the profit or loss.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(ii) Financial liabilities (continued)

Previous financial year (continued)

(b) Loans and borrowings

Subsequent to initial recognition, loans and borrowings were measured at amortised cost using the effective interest method (note 2.12(vi)).

Gains and losses were recognised in the profit or loss when the liabilities were derecognised as well as through the amortisation process.

(iii) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument.

Current financial year

Financial guarantees issued are initially measured at fair value. Subsequently, they are measured at higher of:
- the amount of the loss allowance; and
- the amount initially recognised less, when appropriate, the cumulative amount of income recognised in accordance to the principles of MFRS 15 *Revenue from Contracts with Customers*.

Liabilities arising from financial guarantees are presented together with other provisions.

Previous financial year

Financial guarantee contracts were recognised initially as a liability at fair value, adjusted for transaction costs that were directly attributable to the issuance of the guarantee. Financial guarantee contracts were amortised on a straight-line basis over the contractual period of the debt instrument. Where the guarantee did not have a specific period, the guarantee would only be recognised in the profit or loss upon discharge of the guarantee.

When settlement of a financial guarantee contract became probable, an estimate of the obligation was made. If the carrying value of the financial guarantee contract was lower than the obligation, the carrying value was adjusted to the obligation amount and accounted for as a provision.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(iv) Derivative financial instruments

The Group and the Company use derivative financial instruments such as interest rate and foreign currency swaps, forward rate contracts, futures and options, to manage certain exposures to fluctuations in foreign currency exchange rates, interest rates and commodity prices.

Derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Any gains or losses arising from changes in fair value on derivatives during the year are recognised in the profit or loss.

In general, contracts to sell or purchase non-financial items to meet expected own use requirements are not accounted for as financial instruments. However, contracts to sell or purchase commodities that can be net settled or which contain written options are required to be recognised at fair value, with gains and losses recognised in the profit or loss.

Current financial year

An embedded derivative is recognised separately from the host contract where the host contract is not a financial asset, and accounted for separately if, and only if, the derivative is not closely related to the economic characteristics and risks of the host contract and the host contract is not measured at fair value through profit or loss. The host contract, in the event an embedded derivative is recognised separately, is accounted for in accordance with policy applicable to the nature of the host contract.

Previous financial year

An embedded derivative was recognised separately from the host contract and accounted for as a derivative if, and only if, it was not closely related to the economic characteristics and risks of the host contract and the host contract was not categorised at fair value through profit or loss. The host contract, in the event an embedded derivative was recognised separately, was accounted for in accordance with policy applicable to the nature of the host contract.

(v) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis or to realise the assets and settle the liabilities simultaneously.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(vi) Amortised cost of financial instruments

Current financial year

Interest income is recognised by applying effective interest rate to the gross carrying amount except for credit impaired financial assets (see note 2.13 (i)) where effective interest rate is applied to the amortised cost.

Previous financial year

Amortised cost was computed using the effective interest method. This method used effective interest rate that exactly discounted estimated future cash receipts or payments through the expected life of the financial instrument to the net carrying amount of the financial instrument. Amortised cost took into account any transaction costs and any discount or premium on settlement.

(vii) Derecognition of financial instruments

A financial asset is derecognised when the rights to receive cash flows from the asset have expired or, the Group and the Company have transferred their rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement without retaining control of the asset or substantially all the risks and rewards of the asset.

On derecognition of a financial asset, the difference between the carrying amount and the sum of the consideration received (including any new asset obtained less any new liability assumed) and any cumulative gain or loss that had been recognised in equity is recognised in the profit or loss, except for equity investments at fair value through other comprehensive income where the gain or loss are recognised in other comprehensive income.

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expired. On derecognition of a financial liability, the difference between the carrying amount of the financial liabilities extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in the profit or loss.

2.13 Impairment

(i) Financial assets, contract assets and finance lease receivables

Unless specifically disclosed below, the Group and the Company generally applied the following accounting policies retrospectively. Nevertheless, as permitted by MFRS 9 *Financial Instruments*, the Group and the Company have elected not to restate the comparatives.

Current financial year

The Group and the Company recognise loss allowances for expected credit losses on financial assets measured at amortised cost, debt investments measured at fair value through other comprehensive income, contract assets and finance lease receivables.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Impairment (continued)

(i) Financial assets, contract assets and finance lease receivables (continued)

Current financial year (continued)

The Group and the Company measure loss allowances on debt securities, receivables and contract assets at an amount equal to lifetime expected credit loss. For debt securities that are determined to have low credit risk at the reporting date, other debt securities for which credit risk has not increased significantly since initial recognition and finance lease receivables, the loss allowances are measured as 12 months expected credit losses.

Lifetime expected credit losses are the expected credit losses that result from all possible default events over the expected life of a financial instrument, while 12 months expected credit losses are the portion of expected credit losses that result from default events that are possible within the 12 months after the reporting date.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating expected credit loss, the Group and the Company consider reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information, where available.

The Group assumes that the credit risk on a financial asset has increased significantly if it is past due.

The Group considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security.

The maximum period considered when estimating expected credit losses is the maximum contractual period over which the Group is exposed to credit risk.

An impairment loss in respect of financial assets measured at amortised cost is recognised in profit or loss and the carrying amount of the asset is reduced through the use of an allowance account.

An impairment loss in respect of debt investments measured at fair value through other comprehensive income is recognised in profit or loss and the allowance account is recognised in other comprehensive income.

Previous financial year

All financial assets (except for financial assets categorised as fair value through profit or loss, investments in subsidiaries, investments in associates and investments in joint ventures) were assessed at each reporting date to determine whether there was any objective evidence of impairment as a result of one or more events having an impact on the estimated future cash flows of the asset. Losses expected as a result of future events, no matter how likely, were not recognised. For an investment in an equity instrument, a significant or prolonged decline in the fair value below its cost was an objective evidence of impairment. If any such objective evidence exists, then the financial asset's recoverable amount was estimated.

An impairment loss in respect of loans and receivables and held-to-maturity investments was recognised in profit or loss and was measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount of the asset was reduced through the use of an allowance account.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Impairment (continued)

(i) Financial assets, contract assets and finance lease receivables (continued)

Previous financial year (continued)

An impairment loss in respect of available-for-sale financial assets was recognised in profit or loss and was measured as the difference between the asset's acquisition cost (net of any principal repayment and amortisation) and the asset's current fair value, less any impairment loss previously recognised. Where a decline in the fair value of an available-for-sale financial asset had been recognised in other comprehensive income, the cumulative loss in other comprehensive income was reclassified from equity to profit or loss.

An impairment loss in respect of unquoted equity instrument that was carried at cost was recognised in profit or loss and was measured as the difference between the financial asset's carrying amount and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset.

Impairment losses recognised in profit or loss for an investment in an equity instrument classified as available-for-sale were not reversed through profit or loss.

If, in a subsequent period, the fair value of a debt instrument increased and the increase can be objectively related to an event occurring after the impairment loss was recognised in profit or loss, the impairment loss was reversed, to the extent that the asset's carrying amount did not exceed what the carrying amount would have been had the impairment not been recognised at the date the impairment was reversed. The amount of the reversal was recognised in profit or loss.

(ii) Other assets

The carrying amounts of other assets, other than inventories, deferred tax assets and non-current assets or disposal groups classified as held for sale, are reviewed at each reporting date to determine whether there is any indication of impairment.

If any such indication exists, the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying amount of an asset or the cash-generating unit to which it belongs exceeds its recoverable amount. Impairment losses are recognised in the profit or loss.

A cash-generating unit is the smallest identifiable asset group that generates cash flows from continuing use that are largely independent from other assets and groups. An impairment loss recognised in respect of a cash-generating unit is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to reduce the carrying amount of the other assets in the unit on a pro-rata basis.

The recoverable amount is the greater of the asset's fair value less cost to sell and its value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.13 Impairment (continued)

(ii) Other assets (continued)

An impairment loss in respect of goodwill is not reversed in a subsequent period. In respect of other assets, impairment losses are reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

Reversals of impairment losses are credited to the profit or loss in the year in which the reversals are recognised.

2.14 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and bank balances, deposits with licensed financial institutions and highly liquid investments which have an insignificant risk of changes in value. For the purpose of the statements of cash flows, cash and cash equivalents are presented net of bank overdrafts and deposits restricted, if any.

2.15 Contract assets and contract liabilities

Current financial year – contract assets and contract liabilities

Contract assets represent the Group's and the Company's right to consideration in exchange for goods or services that the entity has transferred to a customer when that right is conditioned on something other than the passage of time. Contract assets are subject to impairment in accordance to MFRS 9 *Financial Instruments* (see note 2.13(i)).

Contract liabilities represent the Group's and the Company's obligation to transfer goods or services to a customer for which the Group and the Company have received consideration, or the amount is due with unconditional right, from the customer.

Previous financial year – construction work-in-progress

Construction work-in-progress represented the gross unbilled amount expected to be collected from customers for contract work performed to date. It was measured at cost plus profit recognised to date less progress billings and recognised losses. Cost included all expenditure related directly to specific projects and an allocation of fixed and variable overheads incurred in the Group's contract activities based on normal operating capacity.

Construction work-in-progress was presented as part of trade and other receivables as amount due from contract customers in the statement of financial position for all contracts in which costs incurred plus recognised profits exceed progress billings. If progress billings exceeded costs incurred plus recognised profits, then the difference was presented as amount due to contract customers which was part of trade and other payables in the statement of financial position.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.16 Inventories

Inventories are stated at the lower of cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

Cost of crude oil and condensates includes costs of bringing the inventories to their present location and condition, and is determined on a weighted average basis.

Cost of petroleum products includes crude oil costs, export duty, transportation charges and processing costs, and is determined on a weighted average basis.

Cost of liquefied natural gas ("LNG") and petrochemical products includes raw gas costs and production overheads, and is determined on a weighted average basis.

Cost of material stores and spares consists of the invoiced value from suppliers and import duty charges, and is determined on a weighted average basis.

Cost of developed properties held for sale and properties under development consists of costs associated with the acquisition of land, all costs that are directly attributable to development activities, appropriate proportions of common costs attributable to developing the properties, and interest expenses incurred during the period of active development.

Lifting of offtake arrangements for crude oil and condensate produced in joint arrangements are such that it is not practicable for each participant to receive or sell its precise share of the overall production during the period. At each reporting date, the extent of underlift is recognised as an asset at the lower of the cost and net realisable value, while overlift is recognised as a liability. The net movement in underlift and overlift is recognised in the statement of profit or loss.

2.17 Provisions

A provision is recognised if, as a result of a past event, the Group and the Company have a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future net cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Where discounting is used, the accretion in the provision due to the passage of time is recognised as finance cost.

The amount recognised as a provision is the best estimate of the net expenditure required to settle the present obligation at the reporting date. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

Possible obligations whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group, are not recognised in the financial statements but are disclosed as contingent liabilities unless the possibility of an outflow of economic resources is considered remote.

In particular, information about provisions that have the most significant effect on the amount recognised in the financial statements is described in note 24.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.18 Employee benefits

Short term benefits

Wages and salaries, bonuses and social security contributions are recognised as an expense in the year in which the associated services are rendered by employees of the Group and the Company.

Defined contribution plans

As required by law, companies in Malaysia make contributions to the state pension scheme, the Employees Provident Fund ("EPF").

Some of the Group's foreign subsidiaries make contributions to their respective countries' statutory pension schemes and certain other independently-administered funds which are defined contribution plans.

Such contributions are recognised as an expense in the profit or loss as incurred.

2.19 Taxation

Tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the profit or loss except to the extent it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax

Current tax expense is the expected tax payable on the taxable income for the year, using the statutory tax rates at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax

Deferred tax is provided for, using the liability method, on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts in the financial statements. In principle, deferred tax liabilities are recognised for all taxable temporary differences and deferred tax assets are recognised for all deductible temporary differences, unabsorbed capital allowances, unused reinvestment allowances, unused investment tax allowances, unused tax losses and other unused tax credits to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences, unabsorbed capital allowances, unused reinvestment allowances, unused investment tax allowances, unused tax losses and other unused tax credits can be utilised.

Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill and the initial recognition of an asset or liability in a transaction which is not a business combination and that affects neither accounting nor taxable profit or loss.

Deferred tax is measured at the tax rates that are expected to apply in the period when the asset is realised or the liability is settled, based on the laws that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities where they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.19 Taxation (continued)

Deferred tax (continued)

Deferred tax asset is reviewed at each reporting date and is reduced to the extent that it is no longer probable that the future taxable profit will be available against which the related tax benefit can be realised.

2.20 Foreign currency transactions

In preparing the financial statements of individual entities in the Group, transactions in currencies other than the entity's functional currency (foreign currencies) are translated to the functional currencies at rates of exchange ruling on the transaction dates.

Monetary assets and liabilities denominated in foreign currencies at the reporting date have been retranslated to the functional currency at rates ruling on the reporting date.

Non-monetary assets and liabilities denominated in foreign currencies, which are measured at fair value, are retranslated to the functional currency at the foreign exchange rates ruling at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in foreign currency are not retranslated.

Gains and losses on exchange arising from retranslation are recognised in the profit or loss, except for differences arising on retranslation of equity instruments at FVOCI which are recognised in equity and are never reclassified to profit or loss.

On consolidation, the assets and liabilities of subsidiaries with functional currencies other than Ringgit Malaysia, are translated into Ringgit Malaysia at the exchange rates ruling at reporting date, except for goodwill and fair value adjustments arising from business combinations before 1 April 2011 which are treated as assets and liabilities of the acquirer company pursuant to the adoption of MFRS framework.

The income and expenses are translated at the exchange rates at the date of the transactions or at an average rate that approximates those rates. All resulting exchange differences are taken to the foreign currency translation reserve within equity.

In the consolidated financial statements, when settlement of a monetary item receivable from or payable to the Group's foreign operation is neither planned nor likely in the foreseeable future, foreign exchange gains and losses arising from such a monetary item are considered to form part of the net investment in a foreign operation and are reclassified to other comprehensive income and accumulated under foreign currency translation reserve in equity. Upon disposal of the investment, the cumulative exchange differences previously recorded in equity are reclassified to the consolidated profit or loss.

2.21 Borrowing costs and foreign currency exchange differences relating to projects-in-progress

Borrowing costs which are directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to be prepared for their intended use or sale, are capitalised as part of the cost of those assets.

The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs ceases when all activities necessary to prepare the qualifying asset for its intended use or sale are completed.

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.21 Borrowing costs and foreign currency exchange differences relating to projects-in-progress (continued)

The capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation is the weighted average of the borrowing costs applicable to borrowings that are outstanding during the year, other than borrowings made specifically for the purpose of financing a specific qualifying asset, in which case the actual borrowing cost incurred on that borrowing less any investment income on the temporary investment of that borrowings, will be capitalised.

Exchange differences arising from foreign currency borrowings, although regarded as an adjustment to borrowing costs, are not capitalised but instead recognised in the profit or loss in the period in which they arise.

2.22 Revenue

Current financial year

Revenue from contract with customers is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Group or the Company recognises revenue when or as it transfers control over a product or service to customer. An asset is transferred when (or as) the customer obtains control of the asset.

An entity transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognises revenue over time, if one of the following criteria is met:

(i) the customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs; or
(ii) the entity's performance creates or enhances an asset (for example, work-in-progress) that the customer controls as the asset is created or enhanced; or
(iii) the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

If a performance obligation is not satisfied over time in accordance with the above criteria, an entity satisfies the performance obligation and recognises revenue at a point in time.

Revenue arising from shipping activities is mainly from freight income and charter income. Freight income and the relevant discharged costs of cargoes loaded onto vessels up to the reporting date are accrued for in the profit or loss based on percentage of completion method. Charter income is accrued on time accrual basis.

Revenue arising from rental income of investment properties is recognised on a straight-line basis over the term of the lease under the lease arrangement (see note 34).

Revenue arising from gas trading activities, where forward and future sale and purchase contracts for gas have been determined to be for trading purposes, the associated sales and purchases are reported net within sales.

Revenue arising from investments yielding dividend is recognised when the shareholders' right to receive payment is established.

Revenue arising from assets yielding interest is recognised on a time proportion basis that takes into account the effective yield on the assets.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.22 Revenue (continued)

Previous financial year

Revenue from sale of oil and gas and their related products was recognised in the profit or loss when the risks and rewards of ownership had been transferred to the buyer.

Revenue from services rendered was recognised in the profit or loss based on actual and estimates of work done in respect of services rendered for long term project management contracts. Work done was measured based on internal certification of project activities. Full provision was made for any foreseeable losses.

Revenue arising from shipping activities was mainly from freight income and charter income. Freight income and the relevant discharged costs of cargoes loaded onto vessels up to the reporting date were accrued for in the profit or loss based on percentage of completion method. Charter income was accrued on time accrual basis.

Revenue from sale of properties was recognised in the profit or loss when the significant risks and rewards of ownership of the properties had been transferred to the buyer.

Revenue arising from rental income of investment properties was recognised on a straight-line basis over the term of the lease under the lease arrangement per note 34.

Revenue arising from assets yielding interest was recognised on a time proportion basis that takes into account the effective yield on the assets.

Revenue arising from investments yielding dividend was recognised when the shareholders' right to receive payment was established.

2.23 Financing costs

Financing costs comprise interest payable on borrowings and profit sharing margin on Islamic financing facilities, as well as accretion in provision due to the passage of time.

All interest and other costs incurred in connection with borrowings are expensed as incurred, other than that capitalised in accordance with the accounting policy stated in note 2.21. The interest component of finance lease payments is accounted for in accordance with the policy set out in note 2.7.

2.24 Operating segments

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components, and for which discrete financial information is available. An operating segment's operating results are reviewed regularly by the chief operating decision maker, which in this case is the PETRONAS Executive Leadership Team, to make decisions about resources to be allocated to the segment and to assess its performance.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

2.25 Fair value measurements

Fair value of an asset or a liability, except for lease transactions, is determined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The measurement assumes that the transaction to sell the asset or transfer the liability takes place either in the principal market or in the absence of a principal market, in the most advantageous market.

(i) Financial instruments

The fair value of financial instruments that are actively traded in organised financial markets are determined by reference to quoted market prices at the close of business at the end of reporting date. For financial instruments where there is no active market, fair value is determined using valuation techniques. Such techniques may include using recent arm's length market transactions; reference to the current fair value of another instrument that is substantially the same; discounted cash flow analysis or other valuation models.

(ii) Non-financial assets

For non-financial assets, the fair value measurement takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

When measuring the fair value of an asset or a liability, the Group and the Company use observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the input used in the valuation technique as follows:

- Level 1 – Quoted prices (unadjusted) in active markets for identifiable assets or liabilities.
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable input).

The Group and the Company recognise transfers between levels of the fair value hierarchy as of the date of the event or change in circumstances that caused the transfers.

2.26 Government grants

Government grants related to assets, including non-monetary grants at fair value, are deducted against the construction cost of the assets. Subsequently, the grants are recognised in profit or loss on a systematic basis over the life of the asset as a reduced depreciation expense.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT

Group 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs	Disposal of subsidiaries
At cost:				
Freehold land	2,548	15	(1)	-
Leasehold land	7,374	5	(48)	-
Lease properties	1,295	-	(30)	-
Oil and gas properties	317,700	5,434	(626)	-
Buildings	18,563	231	(64)	-
Plant and equipment	148,222	930	(1,829)	-
Office equipment, furniture and fittings	3,544	86	(66)	-
Computer software and hardware	4,148	100	(142)	(1)
Motor vehicles	507	25	(25)	-
Vessels	40,369	457	(1,432)	-
Projects-in-progress				
- oil and gas properties	26,923	10,551	-	-
- other projects	67,316	21,958	(14)	(33,319)
	638,509	39,792	(4,277)	(33,320)

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Accumulated depreciation and impairment losses:	At 1.1.2018	Charge for the year	Disposals/ write-offs	Disposal of subsidiaries
Freehold land	-	-	-	-
Leasehold land	780	112	(1)	-
Lease properties	486	10	(30)	-
Oil and gas properties	198,633	20,895	(356)	-
Buildings	7,033	526	(43)	-
Plant and equipment	76,808	6,541	(1,780)	-
Office equipment, furniture and fittings	2,408	264	(65)	-
Computer software and hardware	3,056	416	(137)	-
Motor vehicles	326	45	(20)	-
Vessels	18,613	1,981	(1,251)	-
Projects-in-progress				
- oil and gas properties	2,881	-	(12)	-
- other projects	27	-	(1)	-
	311,051	30,790	(3,696)	-

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NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Group 2018 *In RM Mil*	Transfers/ reclass/ adjustments	Translation exchange difference	At 31.12.2018
At cost:			
Freehold land	64	(6)	2,620
Leasehold land	(22)	(2)	7,307
Lease properties	(13)	4	1,256
Oil and gas properties	15,382	1,050	338,940
Buildings	997	(185)	19,542
Plant and equipment	7,710	332	155,365
Office equipment, furniture and fittings	64	(13)	3,615
Computer software and hardware	133	(38)	4,200
Motor vehicles	11	(21)	497
Vessels	3,587	858	43,839
Projects-in-progress			
- oil and gas properties	(11,751)	71	25,794
- other projects	(11,176)	(917)	43,848
	[a,b,c] 4,986	1,133	646,823

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Accumulated depreciation and impairment losses:	Impairment loss/ (write-back)	Transfers/ reclass/ adjustments	Translation exchange difference	At 31.12.2018
Freehold land	-	-	-	-
Leasehold land	8	(2)	-	897
Lease properties	-	103	(2)	567
Oil and gas properties	(3,730)	297	1,139	216,878
Buildings	23	(4)	(63)	7,472
Plant and equipment	77	100	343	82,089
Office equipment, furniture and fittings	1	(10)	(21)	2,577
Computer software and hardware	1	(13)	(46)	3,277
Motor vehicles	-	1	(11)	341
Vessels	97	23	334	19,797
Projects-in-progress				
- oil and gas properties	(24)	(418)	105	2,532
- other projects	15	-	(30)	11
	(3,532)	[d] 77	1,748	336,438

continued from previous page

a Includes revision to future cost of decommissioning of oil and gas properties amounting to RM3,246 million.

b Includes net transfers in of RM1,740 million comprising transfers from investment properties of RM950 million, intangible assets of RM608 million, inventories of RM401 million, other receivables of RM150 million and transfer to prepaid lease payments of RM95 million and assets held for sale of RM34 million.

c Includes government grants received by certain subsidiaries of RM240 million.

d Includes net transfers in of RM77 million comprising transfers to assets held for sale of RM21 million, other receivables of RM9 million, prepaid lease payments of RM1 million and transfer from investment properties of RM108 million.

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Group **2017** *In RM Mil*	**At 1.1.2017**	**Additions**	**Disposals/ write-offs**	**Acquisition (disposal) of subsidiaries**
At cost:				
Freehold land	2,553	2	(6)	-
Leasehold land	6,908	62	(15)	(10)
Lease properties	440	32	(1)	-
Oil and gas properties	326,907	2,003	(12,430)	-
Buildings	18,401	164	(89)	(3)
Plant and equipment	135,691	873	(1,212)	(196)
Office equipment, furniture and fittings	3,112	75	(69)	-
Computer software and hardware	4,040	147	(140)	(2)
Motor vehicles	558	43	(44)	(3)
Vessels	42,927	1,199	(1,260)	-
Projects-in-progress				
- oil and gas properties	36,828	7,736	(269)	-
- other projects	73,339	28,208	(217)	-
	651,704	40,544	(15,752)	(214)

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Accumulated depreciation and impairment losses:	**At 1.1.2017**	**Charge for the year**	**Disposals/ write-offs**	**Acquisition (disposal) of subsidiaries**
Freehold land	-	-	1	-
Leasehold land	709	111	(7)	(8)
Lease properties	382	11	-	-
Oil and gas properties	205,956	17,726	(11,688)	-
Buildings	7,071	528	(60)	(2)
Plant and equipment	71,941	6,213	(1,196)	(100)
Office equipment, furniture and fittings	2,310	254	(55)	-
Computer software and hardware	2,921	438	(115)	(1)
Motor vehicles	360	49	(33)	(2)
Vessels	20,441	2,049	(1,206)	-
Projects-in-progress				
- oil and gas properties	5,499	-	(233)	-
- other projects	137	-	(113)	-
	317,727	27,379	(14,705)	(113)

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NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Group **2017** *In RM Mil*	**Transfers/ reclass/ adjustments**	**Translation exchange difference**	**At 31.12.2018**
At cost:			
Freehold land	31	(32)	2,548
Leasehold land	448	(19)	7,374
Lease properties	839	(15)	1,295
Oil and gas properties	15,353	(14,133)	317,700
Buildings	306	(216)	18,563
Plant and equipment	19,635	(6,569)	148,222
Office equipment, furniture and fittings	480	(54)	3,544
Computer software and hardware	162	(59)	4,148
Motor vehicles	(32)	(15)	507
Vessels	1,573	(4,070)	40,369
Projects-in-progress			
- oil and gas properties	(15,961)	(1,411)	26,923
- other projects	(28,929)	(5,085)	67,316
	[a,b,c] (6,095)	(31,678)	638,509

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Accumulated depreciation and impairment losses:	**Impairment loss/ (write-back)**	**Transfers/ reclass/ adjustments**	**Translation exchange difference**	**At 31.12.2017**
Freehold land	-	(1)	-	-
Leasehold land	-	(15)	(10)	780
Lease properties	-	107	(14)	486
Oil and gas properties	(2,509)	(195)	(10,657)	198,633
Buildings	26	(483)	(47)	7,033
Plant and equipment	3,359	(520)	(2,889)	76,808
Office equipment, furniture and fittings	1	(87)	(15)	2,408
Computer software and hardware	(1)	(139)	(47)	3,056
Motor vehicles	-	(38)	(10)	326
Vessels	685	(1,595)	(1,761)	18,613
Projects-in-progress				
- oil and gas properties	(1,913)	(2)	(470)	2,881
- other projects	5	(26)	24	27
	(347)	[c,d] (2,994)	(15,896)	311,051

continued from previous page

a Includes net downward revision to future cost of decommissioning of oil and gas properties amounting to RM515 million.
b Includes net transfer out of RM5,497 million comprising transfers to assets held for sale of RM4,715 million, other receivables of RM1,131 million, prepaid lease payments of RM333 million and investment properties of RM14 million and transfers from intangible assets of RM696 million.
c Includes reclassification of certain assets from cost to accumulated depreciation of RM83 million.
d Includes net transfer out of RM2,911 million comprising transfers to assets held for sale of RM2,823 million, intangible assets of RM39 million, other receivables of RM25 million and prepaid lease payments of RM24 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Company 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs
At cost:			
Freehold land	-	-	-
Leasehold land	217	107	(2)
Lease properties	74	-	-
Oil and gas properties	23,369	26	-
Buildings	206	1	-
Plant and equipment	1,840	-	-
Office equipment, furniture and fittings	91	4	-
Computer software and hardware	395	2	(1)
Motor vehicles	17	1	-
Projects-in-progress			
- oil and gas properties	12	141	-
- other projects	496	304	-
	26,717	586	(3)

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Accumulated depreciation and impairment losses:	At 1.1.2018	Charge for the year	Disposals/ write-offs
Freehold land	-	-	-
Leasehold land	21	6	(1)
Lease properties	70	2	-
Oil and gas properties	11,588	2,804	-
Buildings	37	4	-
Plant and equipment	433	81	-
Office equipment, furniture and fittings	88	1	-
Computer software and hardware	285	40	(1)
Motor vehicles	15	1	-
Projects-in-progress			
- oil and gas properties	-	-	-
- other projects	-	-	-
	12,537	2,939	(2)

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Company 2018 *In RM Mil*	Transfers/ reclass/ adjustments	At 31.12.2018
At cost:		
Freehold land	-	-
Leasehold land	(27)	295
Lease properties	-	74
Oil and gas properties	4,724	28,119
Buildings	-	207
Plant and equipment	-	1,840
Office equipment, furniture and fittings	-	95
Computer software and hardware	1	397
Motor vehicles	-	18
Projects-in-progress		
- oil and gas properties	21	174
- other projects	(22)	778
	[a] 4,697	31,997

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Accumulated depreciation and impairment losses:	Impairment loss	Transfers/ reclass/ adjustments	At 31.12.2018
Freehold land	-	-	-
Leasehold land	-	-	26
Lease properties	-	-	72
Oil and gas properties	170	-	14,562
Buildings	-	-	41
Plant and equipment	-	-	514
Office equipment, furniture and fittings	-	-	89
Computer software and hardware	-	-	324
Motor vehicles	-	-	16
Projects-in-progress			
- oil and gas properties	-	-	-
- other projects	-	-	-
	170	-	15,644

continued from previous page

a Includes revision to future cost of decommissioning of oil and gas properties amounting to RM4,727 million. This was offset with reversal of accruals for leasehold land of RM27 million and oil and gas properties of RM3 million.

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Company **2017** *In RM Mil*	**At** **1.1.2017**	**Additions**	**Disposals/** **write-offs**
At cost:			
Freehold land	-	-	-
Leasehold land	76	31	(16)
Lease properties	74	-	-
Oil and gas properties	24,277	1,347	(1,853)
Buildings	268	-	(69)
Plant and equipment	1,794	55	(9)
Office equipment, furniture and fittings	98	1	(8)
Computer software and hardware	300	1	(3)
Motor vehicles	24	3	(10)
Projects-in-progress			
- oil and gas properties	400	162	(233)
- other projects	810	312	-
	28,121	[a] 1,912	(2,201)

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Accumulated depreciation and impairment losses:	**At** **1.1.2017**	**Charge for** **the year**	**Disposals/** **write-offs**
Freehold land	-	-	-
Leasehold land	21	2	(2)
Lease properties	68	2	-
Oil and gas properties	14,114	1,328	(1,115)
Buildings	87	3	(53)
Plant and equipment	360	81	(8)
Office equipment, furniture and fittings	95	1	(8)
Computer software and hardware	251	37	(3)
Motor vehicles	22	2	(9)
Projects-in-progress			
- oil and gas properties	233	-	-
- other projects	-	-	-
	15,251	1,456	(1,198)

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a Includes additions of RM1,265 million arising from revision of estimated future cost of decommissioning of oil and gas properties.

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Company **2017** *In RM Mil*	**Transfers/** **reclass/** **adjustments**	**At** **31.12.2017**
At cost:		
Freehold land	-	-
Leasehold land	126	217
Lease properties	-	74
Oil and gas properties	(402)	23,369
Buildings	7	206
Plant and equipment	-	1,840
Office equipment, furniture and fittings	-	91
Computer software and hardware	97	395
Motor vehicles	-	17
Projects-in-progress		
- oil and gas properties	(317)	12
- other projects	(626)	496
	[a,b] (1,115)	26,717

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Accumulated depreciation and impairment losses:	**Impairment** **write-back**	**Transfers/** **reclass/** **adjustments**	**At** **31.12.2017**
Freehold land	-	-	-
Leasehold land	-	-	21
Lease properties	-	-	70
Oil and gas properties	(2,605)	(134)	11,588
Buildings	-	-	37
Plant and equipment	-	-	433
Office equipment, furniture and fittings	-	-	88
Computer software and hardware	-	-	285
Motor vehicles	-	-	15
Projects-in-progress			
- oil and gas properties	(233)	-	-
- other projects	-	-	-
	[c] (2,838)	[d] (134)	12,537

continued from previous page

a Includes downward revision to future cost of decommissioning of oil and gas properties amounting to RM608 million.
b Includes net transfer out to amount due from subsidiaries of RM374 million and profit or loss of RM22 million respectively.
c Includes impairment write-back of oil and gas properties of RM1,049 million upon annexation of RSC assets to PSCs.
d Includes downward revision to future cost of decommissioning of oil and gas properties amounting to RM130 million.

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	Group		Company	
	Carrying amount		Carrying amount	
In RM Mil	2018	2017	2018	2017
Freehold land	**2,620**	2,548	**-**	-
Leasehold land	**6,410**	6,594	**269**	196
Lease properties	**689**	809	**2**	4
Oil and gas properties	**122,062**	119,067	**13,557**	11,781
Buildings	**12,070**	11,530	**166**	169
Plant and equipment	**73,276**	71,414	**1,326**	1,407
Office equipment, furniture and fittings	**1,038**	1,136	**6**	3
Computer software and hardware	**923**	1,092	**73**	110
Motor vehicles	**156**	181	**2**	2
Vessels	**24,042**	21,756	**-**	-
Projects-in-progress				
- oil and gas properties	**23,262**	24,042	**174**	12
- other projects	**43,837**	67,289	**778**	496
	310,385	327,458	**16,353**	14,180

Security

Property, plant and equipment of certain subsidiaries costing RM7,885 million (2017: RM4,466 million) have been pledged as security for loan facilities as set out in note 22 and note 23 to the financial statements.

Projects-in-progress

Included in additions to projects-in-progress of the Group is borrowing costs capitalised during the year of RM93 million (2017: RM24 million). The interest rate on borrowings costs capitalised is 3.2% - 3.3% (2017: 2.3% - 3.4%) per annum.

Restriction of land title

The titles to certain freehold and leasehold land are in the process of being registered in the subsidiaries' name.

Change in estimates

During the year, the Group and the Company revised the provision for decommissioning of oil and gas properties. The revision was accounted for prospectively as a change in accounting estimates resulting in an increase in cost of oil and gas properties by RM3,246 million and RM4,727 million of the Group and the Company respectively (see note 24).

Estimation of oil and gas reserves

Oil and gas reserves are key elements in the Group's and the Company's investment decision-making process. Estimation of oil and gas reserves are conducted using industry recognised method.

The term "reserves" describes the recoverable quantity of oil and gas volumes that are commercially viable for development given the prevailing economic situation present at the time of estimation.

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

3. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Estimation of oil and gas reserves (continued)

Reserves estimates are normally presented alongside the range of level of certainties namely P1 (high level of certainty for proved reserves), P2 (mean level of certainty for probable reserves) and P3 (low level of certainty for possible reserves). The level of certainties depends on the availability and understanding of the geological and reservoir data available at the time of estimation and is normally represented in the form of probability distribution.

The reserves are further subdivided into developed and undeveloped categories. Developed reserves are reserves expected to be recovered through existing wells and facilities under the operating conditions that have been designed for. Undeveloped reserves are reserves to be recovered from approved and sanctioned projects and remain so until the wells are drilled, completed and production commences which would by then be classified as developed.

Estimations of reserves are reviewed annually. These estimates are inherently imprecise, require the application of judgements and are subject to regular revision, either upward or downward, based on new information available such as new geological information gathered from the drilling of additional wells, observation of long-term reservoir performance under producing conditions and changes in economic factors, including product prices, contract terms or development plans.

Such revisions will impact the Group's and the Company's reported financial position and results which include:

(i) carrying value of oil and gas properties and their corresponding amortisation charges;
(ii) carrying value of projects-in-progress;
(iii) provisions for decommissioning and restoration; and
(iv) carrying value of deferred tax assets/liabilities.

Impairment review of property, plant and equipment

As at 31 December 2018, the Group recognised net write-back of impairment losses on certain property, plant and equipment amounting to RM3,532 million (2017: RM347 million). The impairment losses written back are primarily related to oil and gas properties mainly as a result of positive outlook on sales of oil and gas and cost optimisation.

As at 31 December 2018, the Company recognised net impairment losses on certain property, plant and equipment amounting to RM170 million (2017: write-back of impairment losses charged amounting to RM2,838 million) in cost of revenue.

In arriving at the net impairment write-back amounts, the carrying amount of each previously impaired cash-generating unit is compared with the recoverable amount of the cash-generating unit. The impairment write-back is limited only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

The Group's and the Company's recoverable amount for the relevant impaired and previously impaired cash-generating units of RM32,185 million (2017: RM63,365 million) and RM Nil (2017: RM10,344 million) respectively were determined from the value in use calculations using cash flow projections and fair value less cost to sell.

The Group and the Company use a range of long term assumptions including prices, volumes, margins and costs based on past performance and management's expectations of market development. The projected cash flows were discounted using discount rates ranging between 7.5% and 14.0% (2017: 7.1% and 11.0%).

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

4. INVESTMENT PROPERTIES

Group 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals
At cost:			
Freehold land	**1,508**	**-**	**-**
Buildings	**14,481**	**28**	**-**
Projects-in-progress	**63**	**161**	**-**
	16,052	**189**	**-**

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Accumulated depreciation:	At 1.1.2018	Charge for the year	Disposals
Buildings	**5,865**	**534**	**-**

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2017 *In RM Mil*	At 1.1.2017	Additions	Adjustments/ disposals
At cost:			
Freehold land	1,506	-	-
Buildings	13,589	38	(7)
Projects-in-progress	641	310	-
	15,736	348	(7)

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Accumulated depreciation:	At 1.1.2017	Charge for the year	Adjustments/ disposals
Buildings	5,380	513	(1)

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NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

4. INVESTMENT PROPERTIES (CONTINUED)

Group 2018 *In RM Mil*	Transfers/ reclass	Translation exchange difference	At 31.12.2018
At cost:			
Freehold land	**(68)**	**-**	**1,440**
Buildings	**(911)**	**1**	**13,599**
Projects-in-progress	**(13)**	**-**	**211**
	[a] (992)	**1**	**15,250**

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Accumulated depreciation:	Transfers/ reclass	Translation exchange difference	At 31.12.2018
Buildings	**[b] (121)**	**8**	**6,286**

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2017 *In RM Mil*	Transfers/ reclass	Translation exchange difference	At 31.12.2017
At cost:			
Freehold land	3	(1)	1,508
Buildings	901	(40)	14,481
Projects-in-progress	(888)	-	63
	[c] 16	(41)	16,052

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Accumulated depreciation:	Transfers/ reclass	Translation exchange difference	At 31.12.2017
Buildings	-	(27)	5,865

continued from previous page

a Includes net transfer out of RM992 million comprising transfers to property, plant and equipment of RM950 million and other receivables of RM42 million.

b Includes transfer out to other receivables of RM13 million and property, plant and equipment of RM108 million.

c Includes transfer in from property, plant and equipment of RM14 million and other receivables of RM2 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

4. INVESTMENT PROPERTIES (CONTINUED)

Group	Carrying amount	
In RM Mil	**2018**	**2017**
Freehold land	**1,440**	1,508
Buildings	**7,313**	8,616
Projects-in-progress	**211**	63
	8,964	10,187

Included in investment properties is borrowing costs capitalised during the year for assets under construction of the Group of RM Nil (2017: RM19 million).

Fair value information

The Directors have estimated the fair value of investment properties as at 31 December 2018 to be RM19,979 million (2017: RM20,871 million).

The fair value of investment properties are categorised as follows:

Group	Level 3	
In RM Mil	**2018**	**2017**
Freehold land	**1,773**	**2,117**
Buildings	**18,206**	**18,754**
	19,979	**20,871**

The Group uses various valuation techniques in determining the fair value of its investment properties. Such techniques include discounted cash flows method, investment method and market comparable method.

5. LAND HELD FOR DEVELOPMENT

Included in land held for development is freehold land amounting to RM2,787 million (2017: RM2,835 million).

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

6. PREPAID LEASE PAYMENTS

Group 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs
Leasehold land	**470**	**-**	**(22)**
Prepaid rental	**783**	**-**	**(80)**
	1,253	**-**	**(102)**

continue below

Group 2018 *In RM Mil*	Charge for the year	Transfers	Translation exchange difference	At 31.12.2018
Leasehold land	**(15)**	**22**	**(1)**	**454**
Prepaid rental	**(46)**	**72**	**(10)**	**719**
	(61)	[a] **94**	**(11)**	**1,173**

Group 2017 *In RM Mil*	At 1.1.2017	Additions	Disposals
Leasehold land	252	-	-
Prepaid rental	809	3	(15)
	1,061	3	(15)

continue below

Group 2017 *In RM Mil*	Charge for the year	Transfers	Translation exchange difference	At 31.12.2017
Leasehold land	(15)	234	(1)	470
Prepaid rental	(37)	28	(5)	783
	(52)	[b] 262	(6)	1,253

Restrictions of land title

The title to certain leasehold land is in the process of being registered in the subsidiary's name. Certain long term leasehold land of the Group cannot be disposed of, charged or sub-leased without the prior consent of the relevant authority.

a Includes transfer in from property, plant and equipment of RM94 million.
b Includes transfer in from property, plant and equipment of RM309 million and transfer out to other receivables of RM30 million and assets held for sale of RM17 million.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

7. INVESTMENTS IN SUBSIDIARIES

In RM Mil		Company 2018	2017
Investments at cost			
- quoted shares		**17,064**	17,064
- unquoted shares		**128,711**	113,107
Fair value adjustments on loans and advances and financial guarantee		**8,976**	8,372
		154,751	138,543
Less: Impairment losses			
- unquoted shares		**(1,944)**	(1,839)
		152,807	136,704
Market value of quoted shares		**110,979**	101,572

Details of key subsidiaries are stated in note 43 to the financial statements.

8. INVESTMENTS IN ASSOCIATES

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Investments at cost				
- quoted shares	**263**	263	**302**	302
- unquoted shares	**7,772**	7,346	**-**	-
Share of post-acquisition profits and reserves	**1,182**	1,381	**-**	-
	9,217	8,990	**302**	302
Less: Impairment losses				
- unquoted shares	**(2,220)**	(2,133)	**-**	-
	6,997	6,857	**302**	302
Market value of quoted shares	**1,128**	1,360	**590**	767
Share of associates' contingent liabilities:				
Guarantees extended to third parties	**(15)**	(182)	**-**	-

Details of key associates are stated in note 44 to the financial statements.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

9. INVESTMENTS IN JOINT VENTURES

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Investments at cost				
- unquoted shares	**6,033**	3,991	**624**	624
Fair value adjustments on financial guarantee	**377**	377	**377**	377
Share of post-acquisition profits and reserves	**2,230**	2,103	**-**	-
	8,640	6,471	**1,001**	1,001
Less: Impairment losses	**(89)**	(236)	**(9)**	(9)
	8,551	6,235	**992**	992
Share of joint ventures' contingent liabilities:				
Claims filed by/disputes with various parties	**(96)**	(97)	**(13)**	(14)

Details of key joint ventures are stated in note 45 to the financial statements.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

10. INTANGIBLE ASSETS

Group 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs
At cost:			
Goodwill	**5,690**	**-**	**-**
Exploration expenditure	**25,355**	**1,206**	**(799)**
Other intangible assets	**26,378**	**3,994**	**-**
	57,423	**5,200**	**(799)**

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Accumulated amortisation and impairment losses:	At 1.1.2018	Charge for the year	Disposals/ write-offs
Goodwill	**576**	**-**	**-**
Exploration expenditure	**11,949**	**-**	**-**
Other intangible assets	**22,819**	**2,942**	**-**
	35,344	**2,942**	**-**

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2017 *In RM Mil*	At 1.1.2017	Additions	Disposals/ write-offs
At cost:			
Goodwill	5,931	-	-
Exploration expenditure	27,569	1,719	(1,376)
Other intangible assets	26,730	2,417	(333)
	60,230	4,136	(1,709)

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Accumulated amortisation and impairment losses:	At 1.1.2017	Charge for the year	Disposals/ write-offs
Goodwill	571	-	-
Exploration expenditure	12,115	-	(445)
Other intangible assets	21,992	2,581	(285)
	34,678	2,581	(730)

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NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

10. INTANGIBLE ASSETS (CONTINUED)

Group 2018 *In RM Mil*	Transfers	Translation exchange difference	At 31.12.2018
At cost:			
Goodwill	**-**	**1**	**5,691**
Exploration expenditure	**(625)**	**(711)**	**24,426**
Other intangible assets	**92**	**553**	**31,017**
	[a] (533)	**(157)**	**61,134**

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Accumulated amortisation and impairment losses:	Impairment loss	Transfers	Translation exchange difference	At 31.12.2018
Goodwill	**-**	**-**	**(15)**	**561**
Exploration expenditure	**66**	**-**	**(187)**	**11,828**
Other intangible assets	**20**	**-**	**451**	**26,232**
	86	**-**	**249**	**38,621**

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2017 *In RM Mil*	Transfers	Translation exchange difference	At 31.12.2017
At cost:			
Goodwill	(134)	(107)	5,690
Exploration expenditure	(824)	(1,733)	25,355
Other intangible assets	(6)	(2,430)	26,378
	[b] (964)	(4,270)	57,423

continued from previous page

Accumulated amortisation and impairment losses:	Impairment loss	Transfers	Translation exchange difference	At 31.12.2017
Goodwill	-	-	5	576
Exploration expenditure	991	-	(712)	11,949
Other intangible assets	533	37	(2,039)	22,819
	1,524	[c] 37	(2,746)	35,344

continued from previous page

a Includes net transfer out to property, plant and equipment of RM608 million and transfer in from assets held for sale of RM75 million.

b Includes net transfer out to property, plant and equipment of RM696 million and assets held for sale of RM300 million and transfer in from other receivables of RM32 million.

c Includes net transfer in from property, plant and equipment of RM39 million and transfer out to other receivables of RM2 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

10. INTANGIBLE ASSETS (CONTINUED)

Group	Carrying amount	
In RM Mil	2018	2017
Goodwill	**5,130**	5,114
Exploration expenditure	**12,598**	13,406
Other intangible assets	**4,785**	3,559
	22,513	22,079

Impairment review of goodwill

For the purpose of impairment testing, goodwill is allocated to groups of cash-generating units which represent the lowest level within the Group at which the goodwill is monitored for internal management purposes.

In assessing whether goodwill has been impaired, the carrying amount of the cash-generating unit (including goodwill) is compared with the recoverable amount of the cash-generating unit. The recoverable amount is the higher of fair value less costs to sell and value in use. In the absence of any information about the fair value of a cash-generating unit, the value in use is deemed to be the recoverable amount.

Included in goodwill is an amount of RM3,987 million (2017: RM3,987 million) arising from the acquisition of PETRONAS Lubricants Italy S.p.A Group ("PLI Group"). The recoverable amount of PLI Group unit was based on its value in use and was determined with the assistance of an independent valuer. The value in use was determined by using the discounted cash flow method based on management's business plan cash flow projections for 5 financial years from 2019 to 2023, adjusted with an estimated terminal value. The cash flow assumes a long term growth rate of Nil (2017: Nil) and is discounted to present value using discount rate of between 7.2% and 7.4% (2017: 7.1% and 8.2%).

Based on the above, the recoverable amount of the unit of RM5,368 million (2017: RM5,450 million) was determined to be higher than its carrying amount of RM3,753 million (2017: RM3,753 million) and therefore, no impairment loss was recognised.

The above estimates are sensitive in the following areas:

(i) A decrease of 0.5 percentage point in long term growth rate used would have reduced the recoverable amount by approximately RM251 million.

(ii) An increase of 0.5 percentage point in discount rate used would have reduced the recoverable amount by approximately RM362 million.

The value in use of other remaining goodwill is derived from the respective cash-generating units' business plan cash flow projections for 5 financial years from 2019 to 2023, adjusted with an estimated terminal value. The cash flows assumes a long term average growth rate of the respective industries those units are engaged in and are discounted to present value using discount rate of 7.6% (2017: 7.5%).

Based on the above, the carrying amount of other goodwill of certain units were determined to be lower than their recoverable amount, thus no impairment loss was recognised during the year.

Impairment review of exploration expenditure

As at 31 December 2018, the Group recognised net impairment losses on certain exploration expenditure in cost of revenue amounting to RM66 million (2017: RM991 million), which are mainly related to certain wells no longer capable of commercial development. The impairment on wells costs will be subsequently written off in accordance with the policy set out in note 2.10.

NOTES TO THE FINANCIAL STATEMENTS
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11. LONG TERM RECEIVABLES

	Group		Company	
In RM Mil	2018	2017	2018	2017
Term loans and advances:				
Loans and advances due from subsidiaries	**-**	-	**94,209**	116,964
Loans and advances due from associates and joint ventures	**2,905**	1,525	**1,558**	-
	2,905	1,525	**95,767**	116,964
Contract assets	**2,313**	1,351	**-**	-
Finance lease receivables	**10,272**	9,371	**-**	-
Other receivables and prepayments	**2,402**	2,562	**20,365**	631
Derivative assets (note 13)	**44**	30	**-**	-
	17,936	14,839	**116,132**	117,595
Less: Allowance for impairment losses				
- Term loans and advances	**(873)**	(767)	**(173)**	-
- Other receivables and prepayments	**(268)**	(79)	**-**	-
	16,795	13,993	**115,959**	117,595

Certain comparative figures have been reclassified to conform with current year presentation.

Included in the Company's loans and advances due from subsidiaries and joint venture is an amount of RM92,099 million (2017: RM113,346 million), which bears interest at rates ranging from 2.00% to 5.40% (2017: 2.00% to 5.40%) per annum.

Included in the Group's loans and advances due from associates and joint ventures is an amount of RM2,905 million (2017: RM1,470 million), which bears interest at rates ranging from 4.50% to 10.00% (2017: 4.50% to 10.00%) per annum.

Included in the Company's other receivables and prepayments is abandonment cess contribution to Abandonment Cess Fund ("ACF"), which is reimbursable to the Company upon execution of the abandonment of the oil and gas properties in accordance with the terms of the production sharing contracts ("PSCs") as described in note 39. The amount of cess payable to the PSC Contractors is disclosed in note 24.

Contract assets

Contract assets represent revenue attributable to a concession arrangement entered into by a subsidiary of the Group with the Government of Malaysia to construct government buildings on a Build-Lease-Maintain-Transfer basis. The concession period is 28 years and 6 months commencing from the construction date.

Finance lease receivables

Finance lease receivables represent lease rental and interest receivable due from customers in relation to the lease of offshore floating assets and office buildings, both entered by subsidiaries of the Group.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

11. LONG TERM RECEIVABLES (CONTINUED)

Finance lease receivables (continued)

In RM Mil	Group 2018	Group 2017
Minimum lease receivables:		
Not later than 1 year	**1,687**	1,418
Later than 1 year and not later than 2 years	**1,665**	1,385
Later than 2 years and not later than 5 years	**3,892**	3,860
Later than 5 years	**8,471**	7,659
	15,715	14,322
Less: Future finance income	**(4,383)**	(4,154)
Less: Allowance for impairment losses	**(70)**	-
Present value of finance lease assets	**11,262**	10,168
Present value of finance lease assets:		
Not later than 1 year	**990**	797
Later than 1 year and not later than 2 years	**1,053**	809
Later than 2 years and not later than 5 years	**2,421**	2,522
Later than 5 years	**6,868**	6,040
	11,332	10,168
Less: Allowance for impairment losses	**(70)**	-
	11,262	10,168
Analysed as:		
Due within 12 months (note 16)	**990**	797
Due after 12 months	**10,272**	9,371
	11,262	10,168

The effective interest rate of the Group's finance lease receivables is between 4.10% to 7.60% (2017: 5.65% to 5.89%). Included in minimum lease receivables are the estimated unguaranteed residual values of the leased assets of RM89 million (2017: RM89 million).

NOTES TO THE FINANCIAL STATEMENTS
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12. FUND AND OTHER INVESTMENTS

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Non-current				
Available-for-sale				
Quoted shares	**-**	64	**-**	-
Quoted securities	**-**	37	**-**	-
Unquoted shares	**-**	482	**-**	76
	-	583	**-**	76
Less: Allowance for impairment losses				
Unquoted shares	**-**	(39)	**-**	-
	-	544	**-**	76
Fair value through profit or loss				
Quoted shares	**48**	-	**-**	-
Unquoted shares	**74**	-	**-**	-
Other unquoted securities	**14**	-	**-**	-
	136	-	**-**	-
Fair value through other comprehensive income				
Unquoted shares	**164**	-	**73**	-
Amortised cost				
Long term deposit	**2,000**	-	**1,000**	-
Total non-current investments	**2,300**	544	**1,073**	76
Current				
Available-for-sale				
Quoted shares	**-**	3,177	**-**	9
Malaysian Government Securities	**-**	9	**-**	-
Corporate Bonds and Sukuk	**-**	2,854	**-**	597
	-	6,040	**-**	606
Fair value through profit or loss				
- Designated upon initial recognition				
Quoted shares	**-**	554	**-**	-
Quoted securities	**-**	1,106	**-**	-
Malaysian Government Securities	**-**	33	**-**	33
Corporate Bonds and Sukuk	**-**	21	**-**	741
	-	1,714	**-**	774

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

12. FUND AND OTHER INVESTMENTS (CONTINUED)

	Group		Company	
In RM Mil	**2018**	**2017**	**2018**	**2017**
Current				
Fair value through profit or loss				
Quoted securities	**123**	-	**-**	-
Quoted shares	**743**	-	**7**	-
Corporate Bonds and Sukuk	**4,209**	-	**1,645**	-
Malaysian Government Securities	**44**	-	**38**	-
	5,119	-	**1,690**	-
Fair value through other comprehensive income				
Unquoted shares	**28**	-	**-**	-
Total current investments	**5,147**	7,754	**1,690**	1,380
Total fund and other investments	**7,447**	8,298	**2,763**	1,456
Representing items:				
At amortised cost	**2,000**	480	**1,073**	76
At fair value	**5,447**	7,818	**1,690**	1,380
	7,447	8,298	**2,763**	1,456

Included in fund and other investments of the Group is an amount of RM2,395 million (2017: RM1,519 million) which are held for the purpose of future decommissioning activities of oil and gas properties.

Included in corporate Bonds and Sukuk of the Company are securities issued by subsidiaries and a joint venture amounting to RM625 million (2017: RM620 million).

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

13. DERIVATIVE ASSETS/(LIABILITIES)

		Group		Company	
In RM Mil	**Note**	**2018**	**2017**	**2018**	**2017**
Derivative assets					
Non-current					
Interest rate swap		**44**	30	**-**	-
		44	30	**-**	-
Current					
Commodity swaps		**2**	-	**-**	-
Forward gas contracts		**306**	166	**-**	-
Forward foreign exchange contracts		**28**	219	**4**	8
Forward oil/gas price swaps		**24**	64	**-**	-
		360	449	**4**	8
Included within:					
Long term receivables	11	**44**	30	**-**	-
Trade and other receivables	16	**360**	449	**4**	8
		404	479	**4**	8
Derivative liabilities					
Non-current					
Forward foreign exchange contracts		**(90)**	-	**-**	-
		(90)	-	**-**	-
Current					
Commodity swaps		**(19)**	(51)	**-**	-
Forward oil/gas price swaps		**(8)**	(95)	**-**	-
Forward foreign exchange contracts		**(49)**	(117)	**(20)**	(21)
Forward gas contracts		**(286)**	(221)	**-**	-
		(362)	(484)	**(20)**	(21)
Included within:					
Other long term liabilities and provisions	24	**(90)**	-	**-**	-
Trade and other payables	25	**(362)**	(484)	**(20)**	(21)
		(452)	(484)	**(20)**	(21)

In the normal course of business, the Group and the Company enter into derivative financial instruments to manage their normal business exposures in relation to commodity prices, foreign currency exchange rates and interest rates, including management of the balance between floating rate and fixed rate debt, consistent with risk management policies and objectives.

Certain subsidiaries of the Group adopt hedge accounting whereby hedges meeting the criteria for hedge accounting are classified as cash flow hedges. The effective portion of the gain or loss on the hedging instruments is recognised directly in equity until the hedged transaction occurs, while the ineffective portion is recognised in the profit or loss. As at 31 December 2018, the balance recognised under capital reserves in equity amounts to RM15 million (2017: RM205 million). As these amounts are not significant to the Group, no further disclosure of hedge accounting is presented in the Group's financial statements.

NOTES TO THE FINANCIAL STATEMENTS
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14. DEFERRED TAX

Recognised deferred tax assets/(liabilities)

Deferred tax assets and liabilities are attributable to the following:

		Assets		Liabilities		Net
In RM Mil	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Group						
Property, plant and equipment	**660**	1,212	**(14,669)**	(14,101)	**(14,009)**	(12,889)
Unused tax losses	**7,736**	8,010	**-**	-	**7,736**	8,010
Unabsorbed capital allowances	**2,459**	2,606	**-**	-	**2,459**	2,606
Unused reinvestment allowances	**218**	222	**-**	-	**218**	222
Unused investment tax allowances	**3,413**	3,166	**-**	-	**3,413**	3,166
Provision for decommissioning of oil and gas properties	**4,397**	-	**-**	-	**4,397**	-
Others	**648**	954	**(603)**	(536)	**45**	418
Tax assets/(liabilities)	**19,531**	16,170	**(15,272)**	(14,637)	**4,259**	1,533
Set off tax	**(5,286)**	(6,460)	**5,286**	6,460	**-**	-
Net tax assets/(liabilities)	**14,245**	9,710	**(9,986)**	(8,177)	**4,259**	1,533
Company						
Property, plant and equipment	**-**	-	**(1,041)**	(617)	**(1,041)**	(617)
Unused tax losses	**6,005**	6,015	**-**	-	**6,005**	6,015
Unabsorbed capital allowances	**79**	62	**-**	-	**79**	62
Provision for decommissioning of oil and gas properties	**4,019**	-	**-**	-	**4,019**	-
Others	**288**	218	**-**	-	**288**	218
Tax assets/(liabilities)	**10,391**	6,295	**(1,041)**	(617)	**9,350**	5,678
Set off tax	**(1,041)**	(617)	**1,041**	617	**-**	-
Net tax assets	**9,350**	5,678	**-**	-	**9,350**	5,678

Unrecognised deferred tax assets

Deferred tax assets have not been recognised in respect of the following items (stated at gross):

		Group
In RM Mil	**2018**	**2017**
Deductible temporary differences	**3,994**	3,727
Unabsorbed capital allowances	**604**	871
Unused tax losses	**35,186**	33,926
Unused investment tax allowances	**53**	152
	39,837	38,676

NOTES TO THE FINANCIAL STATEMENTS
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14. DEFERRED TAX (CONTINUED)

Unrecognised deferred tax assets (continued)

In accordance with the provision of Malaysian Finance Act 2018 requirement, the unused tax losses are available for utilisation in the next seven years, for which, any excess at the end of the seventh year will be disregarded. Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profit will be available against which the subsidiaries can utilise the benefits.

Unabsorbed capital allowances and unused investment tax allowances do not expire under current tax legislation.

The Group and the Company have unused tax losses carried forward of approximately RM67,420 million (2017: RM67,301 million) and RM25,020 million (2017: RM25,062 million) respectively, which give rise to the recognised and unrecognised deferred tax assets as above.

The Group also has unabsorbed capital allowances, unused investment tax allowances and unused reinvestment allowances of approximately RM10,850 million (2017: RM11,729 million), RM14,274 million (2017: RM13,344 million) and RM908 million (2017: RM925 million) respectively, which give rise to the recognised and unrecognised deferred tax assets as above.

The components and movements of deferred tax liabilities and assets during the year prior to offsetting are as follows:

Group 2018 *In RM Mil*	**At 1.1.2018**	**Charged/ (credited) to profit or loss**	**Disposal of subsidiaries**	**Equity**	**Translation exchange difference**	**At 31.12.2018**
Deferred tax liabilities						
Property, plant and equipment	**14,101**	**431**	**-**	**190**	**(53)**	**14,669**
Others	**536**	**50**	**-**	**-**	**17**	**603**
	14,637	**481**	**-**	**190**	**(36)**	**15,272**
Deferred tax assets						
Property, plant and equipment	**(1,212)**	**563**	**-**	**-**	**(11)**	**(660)**
Unused tax losses	**(8,010)**	**332**	**-**	**-**	**(58)**	**(7,736)**
Unabsorbed capital allowances	**(2,606)**	**170**	**-**	**-**	**(23)**	**(2,459)**
Unused reinvestment allowances	**(222)**	**4**	**-**	**-**	**-**	**(218)**
Unused investment tax allowances	**(3,166)**	**(247)**	**-**	**-**	**-**	**(3,413)**
Provision for decommissioning of oil and gas properties	**-**	**(4,397)**	**-**	**-**	**-**	**(4,397)**
Others	**(954)**	**213**	**42**	**-**	**51**	**(648)**
	(16,170)	**(3,362)**	**42**	**-**	**(41)**	**(19,531)**

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FINANCIAL STATEMENTS
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14. DEFERRED TAX (CONTINUED)

Group 2017 *In RM Mil*	At 1.1.2017	Charged/ (credited) to profit or loss	Disposal of subsidiaries	Equity	Translation exchange difference	At 31.12.2017
Deferred tax liabilities						
Property, plant and equipment	15,789	(1,004)	-	-	(684)	14,101
Others	406	101	-	9	20	536
	16,195	(903)	-	9	(664)	14,637
Deferred tax assets						
Property, plant and equipment	(664)	(704)	-	-	156	(1,212)
Unused tax losses	(8,961)	805	-	-	146	(8,010)
Unabsorbed capital allowances	(3,091)	431	-	-	54	(2,606)
Unused reinvestment allowances	(223)	1	-	-	-	(222)
Unused investment tax allowances	(2,767)	(399)	-	-	-	(3,166)
Others	(771)	(176)	-	-	(7)	(954)
	(16,477)	(42)	-	-	349	(16,170)

Company 2018 *In RM Mil*	At 1.1.2018	Charged/ (credited) to profit or loss	Transfers	At 31.12.2018
Deferred tax assets				
Property, plant and equipment	**617**	**424**	**-**	**1,041**
Unused tax losses	**(6,015)**	**10**	**-**	**(6,005)**
Unabsorbed capital allowances	**(62)**	**(17)**	**-**	**(79)**
Provision for decommissioning of oil and gas properties	**-**	**(4,019)**	**-**	**(4,019)**
Others	**(218)**	**(70)**	**-**	**(288)**
	(5,678)	**(3,672)**	**-**	**(9,350)**

Company 2017 *In RM Mil*	At 1.1.2017	Charged/ (credited) to profit or loss	Transfers	At 31.12.2017
Deferred tax assets				
Property, plant and equipment	(409)	744	282	617
Unused tax losses	(6,192)	177	-	(6,015)
Unabsorbed capital allowances	(125)	63	-	(62)
Others	(192)	(26)	-	(218)
	(6,918)	958	[a] 282	(5,678)

a Includes transfer out to investment in subsidiaries of RM282 million.

NOTES TO THE
FINANCIAL STATEMENTS
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15. TRADE AND OTHER INVENTORIES

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Crude oil and condensates	**3,096**	3,808	**29**	27
Petroleum products	**4,527**	5,101	**15**	15
Petrochemical products	**689**	691	**-**	-
LNG and natural gas	**1,616**	1,360	**56**	239
Stores, spares and others	**2,577**	2,443	**-**	-
Developed properties held for sale	**425**	442	**-**	-
Properties under development	**1,573**	1,534	**-**	-
	14,503	15,379	**100**	281

16. TRADE AND OTHER RECEIVABLES

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Trade receivables	**30,409**	29,995	**5,095**	5,800
Other receivables, deposits and prepayments	**16,748**	16,127	**3,367**	1,586
Amount due from:				
- subsidiaries	**-**	-	**15,854**	13,654
- associates and joint ventures	**2,096**	990	**75**	73
Contract assets	**702**	633	**-**	-
Tax recoverable	**567**	1,795	**-**	-
Finance lease receivables (note 11)	**990**	797	**-**	-
Derivative assets (note 13)	**360**	449	**4**	8
	51,872	50,786	**24,395**	21,121
Less: Allowance for impairment losses				
- Trade receivables (note 40)	**(3,376)**	(4,497)	**(763)**	(571)
- Amount due from subsidiaries	**-**	-	**(158)**	(151)
- Other receivables, deposits and prepayments	**(2,291)**	(2,254)	**(12)**	(15)
	46,205	44,035	**23,462**	20,384

Amount due from subsidiaries, associates and joint ventures arose in the normal course of business.

Contract assets are mainly in relation to sale of property development whereby they represent the timing differences in revenue recognition and the milestone billings. The milestone billings are either governed by the relevant regulations or structured and/or negotiated with customers and stated in the contracts.

Tax recoverable is subject to the agreement with the relevant tax authorities.

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17. ASSETS CLASSIFIED AS HELD FOR SALE

		Group
In RM Mil	**2018**	**2017**
Vessels	**-**	123
Land and buildings	**-**	2
Plant and equipment and other net assets	**1,361**	2,012
Investment in a joint venture and associates	**495**	-
Intangible assets	**147**	296
Oil and gas properties	**-**	706
	2,003	3,139

The above amount represents carrying values of net assets owned by the Group with the intention of disposal in the immediate future.

Fair value information

In accordance with MFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, assets classified as held for sale were written down to their fair value less costs to sell.

The fair value of assets classified as held for sale are categorised as level 3.

The assets classified as held for sale are stated at fair value, and are determined based on the following:

Vessels

The fair value of vessels has been determined based on market comparable approach including the sale price offered by potential buyer.

Land and buildings

The fair value of land and buildings has been generally derived using sales comparison approach. Sales price of comparable properties in close proximity are adjusted for differences in key attributes such as property size. The most significant input into this valuation approach is price per square foot of comparable properties.

Plant and equipment, intangible assets, oil and gas properties and other net assets

The fair value of plant and equipment, intangible assets, oil and gas properties and other assets are determined based on the contracted price agreed with potential purchaser.

NOTES TO THE FINANCIAL STATEMENTS
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18. CASH AND CASH EQUIVALENTS

		Group		Company
In RM Mil	**2018**	**2017**	**2018**	**2017**
Cash and bank balances	**10,101**	7,904	**2,333**	1,349
Deposits placed	**163,475**	120,305	**139,571**	99,128
	173,576	128,209	**141,904**	100,477
Less: Subsidiaries' cash with PETRONAS Integrated Financial Shared Service Centre	**-**	-	**(50,082)**	(34,913)
	173,576	128,209	**91,822**	65,564

The Company manages the cash and cash equivalents on behalf of certain subsidiaries through its Integrated Financial Shared Service Centre in order to allow for more efficient management of cash. The cash and cash equivalents reported in the Company's financial statements do not include the amounts managed on behalf of the subsidiaries.

Included in cash and bank balances of the Group and the Company are interest-bearing balances amounting to RM8,299 million (2017: RM6,882 million) and RM2,333 million (2017: RM1,349 million) respectively.

Included in deposits with banks of the Group is an amount of RM14,909 million (2017: RM12,864 million) which is held for the purpose of future decommissioning activities of oil and gas properties.

Included in deposits placed with banks of the Group is an amount of RM472 million (2017: RM476 million) being deposits held under designated accounts for redemption of Islamic financing facilities.

Included in cash and bank balances of the Group is the retention account of RM147 million (2017: RM105 million) which is restricted for use because it is pledged to the bank for the purpose of acquisition of vessels.

Included in deposits placed with banks of the Group is an amount of RM44 million (2017: RM43 million) which is restricted for certain payments under the requirements of the borrowing facilities agreement.

Included in cash and bank balances of the Group are amounts of RM57 million (2017: RM157 million) held pursuant to the requirement of the Housing Development (Control and Licensing) Regulations 2002 and are therefore restricted from use in other operations.

19. SHARE CAPITAL

		Company
In RM Mil	**2018**	**2017**
Issued and fully paid:		
100,000 ordinary shares of RM1,000 each	**100**	100

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

20. RESERVES

The Company has sufficient retained profits to distribute the following dividends:

(i) Dividends paid out of income derived from petroleum operations which are not chargeable to tax pursuant to the Petroleum (Income Tax) Act, 1967.

(ii) Single tier dividends paid out of income derived from other operations other than petroleum which are exempt in the hands of shareholder pursuant to Paragraph 12B, Schedule 6 of the Income Tax Act, 1967.

(iii) Exempt dividends paid out of income which are exempt pursuant to Section 12 of Income Tax (Amendment) Act, 1999, Paragraph 28, Schedule 6 and Schedule 7A of the Income Tax Act, 1967.

Capital reserves

Capital reserves represent primarily reserves created upon issuance of bonus shares and redemption of preference shares by subsidiaries and the Group's share of its associate companies' reserves.

Foreign currency translation reserve

The foreign currency translation reserve comprises all foreign currency differences arising from the translation of the financial statements of subsidiaries whose functional currencies are different from that of the Company's functional currency as well as foreign currency differences arising from the translation of monetary items that are considered to form part of a net investment in a foreign operation.

Fair value through other comprehensive income reserve

This reserve records the changes in fair value of equity securities designated at fair value through other comprehensive income. On disposal or impairment of equity securities, the cumulative changes in fair value are transferred to the retained profits.

General reserve

General reserve represents appropriation of retained profits for general purposes rather than for a specific item of future loss or expense. In effect, it is a reserve for unspecified possible events.

21. NON-CONTROLLING INTERESTS

This consists of the non-controlling interests' proportion of share capital and reserves of partly-owned subsidiaries.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

22. BORROWINGS

		Group		Company
In RM Mil	**2018**	**2017**	**2018**	**2017**
Non-current				
Secured				
Term loans	**6,917**	3,199	**-**	-
Islamic financing facilities	**1,588**	1,444	**-**	-
Total non-current secured borrowings	**8,505**	4,643	**-**	-
Unsecured				
Term loans	**6,094**	6,585	**-**	-
Notes and Bonds	**21,598**	33,297	**21,598**	33,297
Islamic financing facilities	**8,814**	9,226	**5,175**	5,063
Total non-current unsecured borrowings	**36,506**	49,108	**26,773**	38,360
Total non-current borrowings	**45,011**	53,751	**26,773**	38,360
Current				
Secured				
Term loans	**411**	1,057	**-**	-
Islamic financing facilities	**708**	696	**-**	-
Total current secured borrowings	**1,119**	1,753	**-**	-
Unsecured				
Term loans	**6,936**	6,141	**-**	-
Notes and Bonds	**12,424**	-	**12,424**	-
Islamic financing facilities	**552**	354	**-**	-
Revolving credits	**2,075**	2,129	**-**	-
Bank overdrafts	**455**	21	**-**	-
Total current unsecured borrowings	**22,442**	8,645	**12,424**	-
Total current borrowings	**23,561**	10,398	**12,424**	-
Total borrowings	**68,572**	64,149	**39,197**	38,360

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

22. BORROWINGS (CONTINUED)

Terms and debt repayment schedule

Group *In RM Mil*	Total	Under 1 year	1-2 years	2-5 years	Over 5 years
Secured					
Term loans	7,328	411	3,007	1,745	2,165
Islamic financing facilities	2,296	708	93	275	1,220
	9,624	1,119	3,100	2,020	3,385
Unsecured					
Term loans	13,030	6,936	553	4,893	648
Notes and Bonds	34,022	12,424	-	7,239	14,359
Islamic financing facilities	9,366	552	510	6,994	1,310
Revolving credits	2,075	2,075	-	-	-
Bank overdrafts	455	455	-	-	-
	58,948	22,442	1,063	19,126	16,317
	68,572	23,561	4,163	21,146	19,702
Company					
Unsecured					
Notes and Bonds	34,022	12,424	-	7,239	14,359
Islamic financing facilities	5,175	-	-	5,175	-
	39,197	12,424	-	12,414	14,359

Islamic financing facilities

Details of Islamic financing facilities are included in note 23.

Unsecured term loans

The unsecured term loans obtained by the subsidiaries primarily comprise:

In Mil	2018	2017
USD Term loans	**US$5,454**	US$5,042
EURO Term loans	**€437**	€440

These unsecured term loans bear interest at rates ranging from 0.39% to 6.50% (2017: 1.26% to 6.50%) per annum and are fully repayable at their various due dates from 2019 to 2030.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

22. BORROWINGS (CONTINUED)

Unsecured Notes and Bonds

The unsecured Notes and Bonds comprise:

In Mil	2018	2017
USD Notes and Bonds:		
5 1/4% Guaranteed Notes due 2019^	**US$3,000**	US$3,000
7 7/8% Notes due 2022^	**US$1,000**	US$1,000
3 1/8% Guaranteed Notes due 2022^	**US$750**	US$750
3 1/2% Guaranteed Notes due 2025^	**US$1,500**	US$1,500
7 5/8% Bonds due 2026#	**US$500**	US$500
4 1/2% Guaranteed Notes due 2045^	**US$1,500**	US$1,500

\# Obtained by the Company.
^ Obtained by the Company via a subsidiary.

Secured term loans

The secured term loans obtained by the subsidiaries primarily comprise:

In Mil	Securities	2018	2017
USD Term loans	Secured by way of a charge over certain vessels and property, plant and equipment, together with charter agreements and insurance of the relevant assets of certain subsidiaries.	**US$1,880**	US$1,134
RM Term loans	Secured by way of a charge over certain property, plant and equipment and investment properties and insurance of the relevant property, plant and equipment of certain subsidiaries.	**RM579**	RM478

The secured term loans bear interest at rates ranging from 1.10% to 4.80% (2017: 2.70% to 4.53%) per annum and are fully repayable at their various due dates from 2019 to 2030.

NOTES TO THE FINANCIAL STATEMENTS

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22. BORROWINGS (CONTINUED)

Unsecured revolving credits and bank overdrafts

The unsecured revolving credits and bank overdrafts are obtained by the subsidiaries and primarily bear interest at rates ranging from 1.00% to 5.00% (2017: 1.00% to 5.00%) per annum.

In connection with the long term borrowing facility agreements, the Group and the Company have agreed on the following significant covenants with the bondholders:

(i) not to allow any material indebtedness (the minimum aggregate amount exceeding US$30,000,000 or its equivalent in any other currency) for borrowed money of the Company to become due or capable of being declared due before its stated maturity, any guarantee of the Company for material indebtedness of any other person is not discharged at maturity or when validly called or the Company goes into default;

(ii) the Company (not including any of its subsidiaries) not to create, incur or have outstanding any mortgage, pledge, lien, charge, encumbrance or any other lien upon the whole or any part of its property or assets, present or future indebtedness of itself or any other person, unless the aggregate outstanding principal amount of all such secured indebtedness (other than indebtedness secured by the liens already in existence) plus attributable debt of the Company in respect of sales and leaseback transactions would not exceed 10% of the consolidated net tangible assets;

(iii) the Company (not including any of its subsidiaries) not to enter into any sale and leaseback transaction, unless the attributable debt in respect of such sale and leaseback transaction and all other sale and leaseback transaction plus the aggregate outstanding principal amount of indebtedness for borrowed money secured by security interests (other than permitted security interests) then outstanding which have not equally and rateably secured the total outstanding would not exceed 10% of the Company's consolidated net tangible assets provided that, within 12 months after such sale and leaseback transaction, it applies to the retirement of indebtedness for borrowed money the repayment obligations hereunder and which are not secured by any security interest, an amount to the greater of:

- the net proceeds of the sale or transfer of the property or other assets which are the subject of such sale and leaseback transaction as determined by the Company; or
- the fair market value of the property or other assets so leased as determined by the Company;

(iv) neither the Company nor PETRONAS Capital Limited ("PCL"), without consent of a majority bondholders may consolidate with, or merge into, or sell, transfer, lease or convey substantially all of its assets to any corporation unless any successor corporation expressly assumes the obligations of the Company or PCL, as the case may be under the Notes and Bonds.

NOTES TO THE FINANCIAL STATEMENTS

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23. ISLAMIC FINANCING FACILITIES

Secured Islamic financing facilities

The secured Islamic financing facilities obtained by the subsidiaries comprise:

In RM Mil	**2018**	**2017**
Al Bai'bithaman Ajil Facilities	**300**	300
Bai' Al-Dayn Note Issuance Facilities	**206**	206
Murabahah Medium Term Notes	**1,510**	3,710

The secured Islamic financing facilities bear a yield payable ranging from 4.00% to 7.25% (2017: 4.37% to 7.25%) per annum and are fully repayable at their various due dates from 2019 to 2026.

The Islamic financing facilities are secured by way of a charge over certain property, plant and equipment and investment properties.

Unsecured Islamic financing facilities

The unsecured Islamic financing facilities obtained by the subsidiaries comprise:

In Mil	**2018**	**2017**
Murabahah Note Issuance Facilities	**RM9**	RM17
Murabahah Note Issuance Facilities	**CNY216**	CNY216
Sukuk Musyarakah	**RM3,982**	RM3,982
Bai' Al-Dayn Note Issuance Facilities	**RM40**	RM81
Trust Certificates^	**US$1,250**	US$1,250

^ Obtained by the Company via a subsidiary.

The unsecured Islamic financing facilities bear a yield payable ranging from 2.71% to 6.17% (2017: 2.71% to 6.17%) per annum and are fully repayable at their various due dates from 2019 to 2026.

24. OTHER LONG TERM LIABILITIES AND PROVISIONS

		Group		Company
In RM Mil	**2018**	**2017**	**2018**	**2017**
Provision for decommissioning of:				
- oil and gas properties	**35,286**	18,503	**16,451**	12,299
- other property, plant and equipment	**355**	432	**-**	-
Financial guarantees	**-**	-	**7**	15
Derivative liabilities (note 13)	**90**	-	**-**	-
Contract liabilities	**3,014**	-	**9,664**	-
Others	**5,390**	18,450	**8,653**	1,715
	44,135	37,385	**34,775**	14,029

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

24. OTHER LONG TERM LIABILITIES AND PROVISIONS (CONTINUED)

Provision for decommissioning of oil and gas properties and other property, plant and equipment is recognised when there is an obligation to abandon a facility or an item of property, plant and equipment and to restore the site on which it is located, and when a reasonable estimate of that liability can be made. In the case of provision for decommissioning of oil and gas properties, the obligation is stipulated in production sharing contract ("PSC") as described in note 39.

Included in other long term liabilities of the Group and the Company are amount of abandonment cess payable to the PSC Contractors of RM2,400 million and RM7,077 million respectively as described in note 39.

The provision recognised is the present value of the Group's and the Company's obligations of the estimated future costs determined in accordance with current conditions and requirements.

A corresponding asset of an amount equivalent to the provision is also created. This asset is depreciated in accordance with the policy set out in note 2.4. The increase in the present value of the provision for the expected costs due to the passage of time is included within finance costs.

The estimated decommissioning cost is uncertain as it relates to abandonment activities which will be undertaken in the future and subjected to the volatility of various factors including laws and regulations, technology, economy and political climate. To manage these changes and its impact on the carrying value of the provisions, regular reviews are performed by the Group and the Company on the key assumptions applied for the calculation including the decommissioning costs, discount and inflation rates used in discounting the cash flows as well as changes to the fiscal terms of the production sharing contracts. The interest rate and inflation rate used to determine the obligation as at 31 December 2018 ranges from 1.70% to 8.08% (2017: 1.52% to 8.50%) and 1.40% to 3.54% (2017 : 1.70% to 3.75%) respectively. Changes in the expected future costs are reflected in both the provision and the asset.

The movements of provision for decommissioning during the financial year are as follows:

In RM Mil	Group	Company
At 1 January 2018	**18,935**	**12,299**
Net changes in provision	**14,854**	**3,413**
Unwinding of discount	**1,852**	**739**
At 31 December 2018	**35,641**	**16,451**

Net changes in provision include foreign exchange gains or losses arising from retranslation of the provision and are adjusted against the carrying amount of the corresponding asset accordingly.

During the year, the Group and the Company refined the provision for decommissioning of oil and gas properties resulting from changes in estimated cash flows. The adjustment was accounted for prospectively as a change in accounting estimates resulting in the following:

In RM Mil	Group	Company
Increase in provision for decommissioning	14,854	3,413
Increase in cost of property, plant and equipment	3,246	4,727
Decrease in long term liabilities	(11,516)	-
(Decrease)/Increase in profits	(92)	1,314

25. TRADE AND OTHER PAYABLES

		Group		Company
In RM Mil	2018	2017	2018	2017
Trade payables	**14,618**	14,459	**2,224**	1,234
Other payables	**38,886**	36,600	**12,948**	10,649
Contract liabilities	**26**	-	**-**	-
Amount due to:				
- subsidiaries	**-**	-	**8,983**	7,977
- associates and joint ventures	**679**	1,748	**14**	13
Derivative liabilities (note 13)	**362**	484	**20**	21
	54,571	53,291	**24,189**	19,894

Included in other payables of the Group are security deposits of RM81 million (2017: RM106 million) mainly held in respect of tenancies of a shopping centre and office buildings. These deposits are refundable upon termination of the respective lease agreements.

Also included in trade payables of the Group are retention sums on construction contracts amounting to RM206 million (2017: RM223 million).

Amount due to subsidiaries, associates and joint ventures arose in the normal course of business.

26. REVENUE

		Group		Company
In RM Mil	2018	2017	2018	2017
Revenue from contracts with customers	**235,556**	210,450	**90,898**	75,950
Other revenue				
- shipping and shipping related services	**5,217**	6,005	**-**	-
- rental of properties	**2,297**	2,130	**-**	-
- rendering of services	**780**	395	**4,381**	3,750
- others	**1,498**	846	**-**	-
	9,792	9,376	**4,381**	3,750
- dividend income				
Quoted				
- subsidiaries	**-**	-	**3,883**	3,785
- associates	**-**	-	**24**	27
- investments	**1**	145	**1**	1
Unquoted				
- subsidiaries	**-**	-	**28,181**	12,461
- investments	**45**	61	**9**	61
- associate and joint ventures	**95**	-	**128**	42
	141	206	**32,226**	16,377
- interest income	**5,487**	3,590	**3,315**	2,098
Total revenue	**250,976**	223,622	**130,820**	98,175

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

26. REVENUE (CONTINUED)

Disaggregation of revenue from contracts with customers

In the following table, revenue is disaggregated by primary geographical market and major products/services lines.

Group 2018 *In RM Mil*	Upstream	Downstream	Corporate and others	Total
Primary geographical markets				
- Asia	**48,799**	**34,949**	**-**	**83,748**
- Malaysia	**20,220**	**41,773**	**3,197**	**65,190**
- Japan	**24,162**	**1,753**	**-**	**25,915**
- South Africa	**103**	**23,874**	**-**	**23,977**
- Rest of the world	**17,139**	**19,587**	**-**	**36,726**
	110,423	**121,936**	**3,197**	**235,556**
Major products/services lines				
- Petroleum products	**380**	**88,778**	**-**	**89,158**
- Crude oil and condensates	**27,919**	**12,500**	**-**	**40,419**
- Liquefied natural gas	**53,937**	**-**	**-**	**53,937**
- Natural and processed gas	**27,714**	**143**	**-**	**27,857**
- Petrochemicals	**-**	**19,071**	**-**	**19,071**
- Construction contracts	**-**	**-**	**1,397**	**1,397**
- Sales of properties	**-**	**-**	**272**	**272**
- Others	**473**	**1,444**	**1,528**	**3,445**
	110,423	**121,936**	**3,197**	**235,556**
Revenue from contract customers	**110,423**	**121,936**	**3,197**	**235,556**
Other revenue	**3,181**	**725**	**11,514**	**15,420**
Total revenue	**113,604**	**122,661**	**14,711**	**250,976**

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

26. REVENUE (CONTINUED)

Disaggregation of revenue from contracts with customers (continued)

Group 2017 *In RM Mil*	Upstream	Downstream	Corporate and others	Total
Primary geographical markets				
- Asia	39,756	29,795	-	69,551
- Malaysia	17,693	35,254	3,773	56,720
- Japan	26,817	933	-	27,750
- South Africa	-	22,858	-	22,858
- Rest of the world	14,170	19,401	-	33,571
	98,436	108,241	3,773	210,450
Major products/services lines				
- Petroleum products	339	79,481	-	79,820
- Crude oil and condensates	22,908	10,348	-	33,256
- Liquefied natural gas	49,874	-	-	49,874
- Natural and processed gas	24,415	177	-	24,592
- Petrochemicals	-	17,638	-	17,638
- Construction contracts	-	-	1,905	1,905
- Sales of properties	-	-	250	250
- Others	900	597	1,618	3,115
	98,436	108,241	3,773	210,450
Revenue from contract customers	98,436	108,241	3,773	210,450
Other revenue	1,582	640	10,950	13,172
Total revenue	100,018	108,881	14,723	223,622

Company *In RM Mil*	2018	2017
Primary geographical markets		
- Asia	**16,633**	13,012
- Malaysia	**69,263**	59,511
- Japan	**1,002**	954
- South Africa	**103**	-
- Rest of the world	**3,897**	2,473
	90,898	75,950
Major products/services lines		
- Crude oil and condensates	**44,649**	35,030
- Liquefied natural gas	**1,804**	293
- Natural and processed gas	**44,445**	40,627
	90,898	75,950
Revenue from contract customers	**90,898**	75,950
Other revenue	**39,922**	22,225
Total revenue	**130,820**	98,175

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

26. REVENUE (CONTINUED)

Nature of goods and services

Sales of oil and gas products

Revenue from sales of oil and gas products namely petroleum products, crude oil and condensates, liquefied natural gas, natural gas, processed gas and petrochemicals is recognised when control of the goods has transferred to the customers. Depending on the terms of the contract with the customer, controls transfer either upon delivery of the goods to a location specified by the customers or upon delivery of the goods on board vessels or tankers for onward delivery to the customers. There is no significant financing element present as the Group's and the Company's sales of oil and gas products are made either on cash or credit terms as per the industry practices.

Construction contracts

Revenue from construction contracts is recognised progressively based on percentage of completion method determined by reference to the completion of the physical proportion of contract work to date. The amount receivable from the customers is based on agreed milestones as per the terms of the contract.

Sales of properties

Revenue from sales of properties is recognised when control of the properties has been transferred to the buyer. There is no significant financing element present as the Group's sales of properties are made on credit terms as per the industry practices.

Transaction price allocated to performance obligations

The Group and the Company entered into long term contracts for the sales of various oil and gas products with remaining tenures ranging between 2 to 22 years. The future revenue of the Group and of the Company is dependent on the prevailing market price, exchange rate on the transaction date as well as production volume, which is based on contractual requirements.

In addition to the above, the Group and the Company entered into spot and short term contracts for the sales of various oil and gas products with remaining tenures less than 1 year.

No further disclosure on the remaining performance obligations and its comparative are presented in the Group's financial statements in line with MFRS 15 *Revenue from Contracts with Customers* practical expedients.

The Group also entered into long term construction contracts. As at 31 December 2018, total outstanding performance obligations is not significant to the Group. Hence, no further disclosure is presented in the Group's financial statements.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

27. OPERATING PROFIT

	Group		Company	
In RM Mil	**2018**	**2017**	**2018**	**2017**
Included in operating profit are the following charges:				
Audit fees	**35**	32	**2**	2
Amortisation of:				
- intangible assets	**2,942**	2,581	**-**	-
- prepaid lease payments	**61**	52	**-**	-
Bad debts written off:				
- trade and other receivables	**16**	26	**1**	-
Contribution to Tabung Amanah Negara	**500**	100	**500**	100
Depreciation of property, plant and equipment and investment properties	**31,324**	27,892	**2,939**	1,456
Net impairment losses on:				
- property, plant and equipment	**-**	-	**170**	-
- intangible assets	**20**	1,745	**-**	-
- investment in an associate	**65**	-	**-**	-
- trade receivables and contract assets arising from contracts with customers	**-**	295	**172**	198
- loan and advances to associates and a joint venture	**101**	88	**-**	-
- investments in subsidiaries	**-**	-	**105**	-
- other investments	**4**	8	**-**	-
Net impairment/write-off on well costs	**653**	703	**-**	-
Inventories written down to net realisable value	**108**	135	**-**	-
Loss on disposal of:				
- other investments	**-**	5	**-**	-
- property, plant and equipment	**53**	28	**-**	-
- intangible assets	**378**	-	**-**	-
Operating lease rental	**1,413**	1,705	**2,063**	1,916
Property, plant and equipment written off	**95**	375	**1**	-
Rental of:				
- plant, machinery, equipment and motor vehicles	**221**	1,054	**47**	53
- land and buildings	**558**	498	**194**	127
Research and development expenditure	**103**	85	**6**	2
Staff costs:				
- wages, salaries and others	**9,523**	8,544	**2,269**	1,587
- contributions to pension fund	**1,062**	932	**308**	230
Net loss on foreign exchange	**1,105**	4,020	**184**	8,957

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

27. OPERATING PROFIT (CONTINUED)

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
and credits:				
Gain on disposal/partial disposal of:				
- other investments	**742**	251	**28**	35
- property, plant and equipment	**6**	96	**-**	-
- associates and joint ventures	**-**	63	**-**	-
- subsidiaries	**1,170**	440	**84**	897
Interest income - others	**1,022**	799	**3,745**	4,836
Rental income on land and buildings	**410**	496	**355**	432
Net write-back of impairment losses on:				
- property, plant and equipment	**3,331**	347	**-**	1,789
- investments in associates and a joint venture	**-**	601	**-**	-
- receivables	**1,592**	-	**-**	-
- loan and advances to subsidiaries	**-**	-	**38**	-
Net changes in fair value:				
- cess receivables	**-**	-	**3,019**	-
- contract liabilities	**89**	-	**444**	-

28. TAX EXPENSE

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Current tax expenses				
Malaysia				
Current year	**21,165**	18,139	**8,789**	7,903
Prior year	**2,232**	344	**929**	78
Overseas				
Current year	**922**	1,558	**-**	-
Prior year	**(18)**	38	**-**	-
Total current tax expenses	**24,301**	20,079	**9,718**	7,981
Deferred tax expenses				
Origination and reversal of temporary differences	**(2,932)**	(20)	**(4,557)**	247
Under/(over) provision in prior year	**51**	(925)	**885**	711
Total deferred tax expenses	**(2,881)**	(945)	**(3,672)**	958
Total tax expenses	**21,420**	19,134	**6,046**	8,939

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

28. TAX EXPENSE (CONTINUED)

A reconciliation of income tax expense applicable to profit before taxation at the statutory income tax rate to income tax expense at the effective income tax rate of the Group and of the Company is as follows:

In RM Mil	%	2018	%	2017
Group				
Profit before taxation		**76,730**		64,652
Taxation at Malaysian statutory tax rate	**24**	**18,415**	24	15,516
Effect of different tax rates in foreign jurisdictions	**-**	**(9)**	-	83
Effect of different tax rates between corporate income tax and petroleum income tax	**7**	**5,708**	7	4,421
Effect of changes in tax rates	**-**	**-**	-	59
Non deductible expenses, net of non assessable income	**3**	**2,204**	3	2,078
Tax exempt income	**(3)**	**(2,481)**	(3)	(1,768)
Tax incentives	**(1)**	**(953)**	(2)	(1,119)
Effect of deferred tax benefits not recognised	**-**	**279**	1	415
Effect of deferred tax benefits previously not recognised	**(5)**	**(4,146)**	-	-
Foreign exchange translation difference	**-**	**138**	-	(8)
	25	**19,155**	30	19,677
Under/(over) provision in prior years		**2,265**		(543)
Tax expense		**21,420**		19,134
Company				
Profit before taxation		**57,044**		35,111
Taxation at Malaysian statutory tax rate	**24**	**13,691**	24	8,427
Effect of different tax rates between corporate income tax and petroleum income tax	**6**	**3,356**	10	3,443
(Non assessable income, net of non deductible expenses)/non deductible expenses, net of non assessable income	**(2)**	**(1,062)**	1	194
Effect of deferred tax benefits previously not recognised	**(7)**	**(4,019)**	-	-
Tax exempt income	**(14)**	**(7,734)**	(11)	(3,914)
	7	**4,232**	24	8,150
Under provision in prior years		**1,814**		789
Tax expense		**6,046**		8,939

NOTES TO THE FINANCIAL STATEMENTS
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29. DIVIDENDS

		Company
In RM Mil	**2018**	**2017**
Ordinary:		
Final:		
Tax exempt dividend of RM160,000 (2017: RM130,000) per ordinary share in respect of financial year 31 December 2017 (2017: 31 December 2016)	**16,000**	13,000
Interim:		
First interim tax exempt dividend of RM30,000 (2017: RM30,000) per ordinary share in respect of financial year 31 December 2018 (2017: 31 December 2017)	**3,000**	3,000
Second interim tax exempt dividend of RM20,000 (2017: RM Nil) per ordinary share in respect of financial year 31 December 2018	**2,000**	-
Special Dividend:		
A special tax exempt dividend of RM30,000 (2017: RM Nil) per ordinary share in respect of financial year 31 December 2018	**3,000**	-
An additional special tax exempt dividend of RM20,000 (2017: RM Nil) per ordinary share in respect of financial year 31 December 2018	**2,000**	-
An additional special tax exempt dividend of RM300,000 (2017: RM Nil) per ordinary share in respect of financial year 31 December 2018	**30,000**	-
	56,000	16,000
Proposed:		
Final:		
Tax exempt dividend of RM240,000 (2017: RM160,000) per ordinary share in respect of financial year 31 December 2018 (2017: 31 December 2017)	**24,000**	16,000

The proposed tax exempt final dividend of RM240,000 per ordinary share amounting to RM24 billion in respect of the financial year ended 31 December 2018, has not been accounted for in the financial statements.

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30. NET CASH (USED IN)/GENERATED FROM INVESTING ACTIVITIES

The cash (used in)/generated from investing activities comprise:

		Group		Company
In RM Mil	**2018**	**2017**	**2018**	**2017**
Acquisition of:				
- additional shares in subsidiaries	**-**	-	**(24,176)**	(46,884)
Dividends received	**1,120**	1,238	**32,226**	16,377
Investment in:				
- associates, joint ventures and unquoted companies	**(125)**	(503)	**-**	-
- securities and other investments	**(4,222)**	(2,512)	**(1,478)**	(167)
Long term receivables and advances (to)/repaid from:				
- subsidiaries	**-**	-	**23,145**	32,868
- associates and joint ventures	**(1,648)**	(384)	**(1,558)**	-
Proceeds from disposal/partial disposal of:				
- investment in subsidiaries, net of cash disposed (note 32)	**4,044**	561	**434**	1,302
- investment in associates and a joint venture	**-**	203	**-**	-
- property, plant and equipment, investment properties, prepaid lease payments, intangible assets and assets classified as held for sale	**445**	350	**-**	-
- securities and other investments	**5,594**	2,767	**184**	3,252
Proceeds from capital reduction in an associate and joint ventures	**221**	12	**-**	-
Purchase of property, plant and equipment, investment properties, prepaid lease payments, intangible assets and land held for development	**(46,798)**	(44,499)	**(427)**	(967)
Proceeds from government grant	**240**	204	**-**	-
Redemption of preference shares in subsidiaries	**-**	-	**7,936**	5,321
	(41,129)	(42,563)	**36,286**	11,102

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31. NET CASH USED IN FINANCING ACTIVITIES

The cash used in financing activities comprise:

	Group		Company	
In RM Mil	2018	2017	2018	2017
Dividends paid	**(26,000)**	(16,000)	**(26,000)**	(16,000)
Dividends paid to non-controlling interests	**(5,998)**	(6,770)	**-**	-
Drawdown of:				
- Islamic financing facilities	**711**	1,325	**-**	-
- term loans	**35,070**	4,606	**-**	-
- revolving credits	**1,882**	1,085	**-**	-
Repayment of:				
- Islamic financing facilities	**(870)**	(711)	**-**	-
- term loans	**(4,869)**	(2,100)	**-**	-
- revolving credits	**(1,910)**	(2,159)	**-**	-
Payment to a non-controlling interest on additional equity interest	**(634)**	-	**-**	-
Proceeds from partial disposal of equity interest to a non-controlling interest	**435**	1,420	**-**	-
Proceeds from shares issued to non-controlling interests	**21**	56	**-**	-
	(2,162)	(19,248)	**(26,000)**	(16,000)

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

31. NET CASH USED IN FINANCING ACTIVITIES (CONTINUED)

Reconciliation of movement of liabilities to cash flows arising from financing activities:

2018	Group		Company	
In RM Mil	Borrowings	Dividends	Borrowings	Dividends
Balance at 1 January 2018	**64,149**	**-**	**38,360**	**-**
Changes from financing cash flows				
Drawdown/(Repayment) of:				
Term loans	**30,201**	**-**	**-**	**-**
Islamic financing facilities	**(159)**	**-**	**-**	**-**
Revolving credits	**(28)**	**-**	**-**	**-**
Bank overdrafts	**466**	**-**	**-**	**-**
Dividend paid	**-**	**(26,000)**	**-**	**(26,000)**
Total changes from financing cash flows	**30,480**	**(26,000)**	**-**	**(26,000)**
Changes arising from losing control of subsidiaries				
Term loans	**(27,074)**	**-**	**-**	**-**
The effect of changes in foreign exchange rates				
Islamic financing facilities	**96**	**-**	**110**	**-**
Term loan	**240**	**-**	**-**	**-**
Revolving credits	**(21)**	**-**	**-**	**-**
Bank overdrafts	**(32)**	**-**	**-**	**-**
Notes and Bonds	**698**	**-**	**691**	**-**
	981	**-**	**801**	**-**
Other changes				
Dividend declared	**-**	**56,000**	**-**	**56,000**
Financing costs	**36**	**-**	**36**	**-**
	36	**56,000**	**36**	**56,000**
Balance at 31 December 2018	**68,572**	**30,000**	**39,197**	**30,000**

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

31. NET CASH USED IN FINANCING ACTIVITIES (CONTINUED)

2017	Group		Company	
In RM Mil	**Borrowings**	**Dividends**	**Borrowings**	**Dividends**
Balance at 1 January 2017	67,613	-	42,367	-
Changes from financing cash flows				
Drawdown/(Repayment) of:				
Term loans	1,711	-	-	-
Islamic financing facilities	614	-	-	-
Revolving credits	(1,074)	-	-	-
Bank overdrafts	(21)	-	-	-
Dividend paid	-	(16,000)	-	(16,000)
Total changes from financing cash flows	1,230	(16,000)	-	(16,000)
Changes arising from disposal of subsidiaries				
Term loans	795	-	-	-
Bank overdrafts	(81)	-	-	-
	714	-	-	-
The effect of changes in foreign exchange rates				
Islamic financing facilities	(555)	-	(552)	-
Term loans	(1,232)	-	-	-
Revolving credits	(141)	-	-	-
Bank overdrafts	(28)	-	-	-
Notes and Bonds	(3,486)	-	(3,485)	-
	(5,442)	-	(4,037)	-
Other changes				
Dividend declared	-	16,000	-	16,000
Financing costs	34	-	30	-
	34	16,000	30	16,000
Balance at 31 December 2017	64,149	-	38,360	-

NOTES TO THE FINANCIAL STATEMENTS
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32. DISPOSAL OF SUBSIDIARIES

Divestment of 50% of equity interests to Aramco Overseas Holdings Coöperatief U.A. ("AOHC")

PETRONAS, via its subsidiaries, PETRONAS Refinery & Petrochemical Corporation Sdn. Bhd. ("PRPC") and PETRONAS Chemicals Group Berhad ("PCG") signed a Share Purchase Agreement with Saudi Arabian Oil Company ("Saudi Aramco") on 28 February 2017, allowing Saudi Aramco's equity participation in PETRONAS' Refinery & Petrochemical Integrated Development ("RAPID") project in the southern Malaysian state of Johor.

On 28 March 2018, the Group completed the divestments of its 50% equity interests in Pengerang Refining Company Sdn. Bhd. (formerly known as ("fka") PRPC Refinery & Cracker Sdn. Bhd. ("PRPC RC")), a wholly-owned subsidiary of PRPC and Pengerang Petrochemical Company Sdn. Bhd. (fka PRPC Polymers Sdn. Bhd. ("PRPC Polymers")), a wholly-owned subsidiary of PCG respectively to Aramco Overseas Holdings Coöperatief U.A. ("AOHC"), a wholly-owned subsidiary of Saudi Aramco for a total consideration of RM3,011 million. Pursuant to this, PRPC RC and PRPC Polymers ceased to be subsidiaries of the Group and have been accounted for as a joint venture and a joint operation respectively, in accordance with MFRS 11 *Joint Arrangements*.

The net profit contributed by these subsidiaries from 1 January 2018 to the date of divestment is not material in relation to the consolidated net profit of the Group for the period.

Divestment of 100% of equity interest to Khazanah Nasional Berhad

On 22 March 2018, PETRONAS, via its wholly-owned subsidiary, PETRONAS Hartabina Sdn. Bhd. signed a Share Sale and Purchase Agreement for the sale of PETRONAS' 100% interest in Prince Court Medical Centre Sdn. Bhd. ("PCMC") to Khazanah Nasional Berhad ("Khazanah") (via its wholly-owned subsidiary, Pulau Memutik Ventures Sdn. Bhd.) for a total consideration of RM1,033 million. The divestment was completed in August 2018.

The net profit contributed by this subsidiary from 1 January 2018 to the date of divestment is not material in relation to the consolidated net profit of the Group for the period.

The net effect of the above disposals of subsidiaries on the cash flows and carrying amount of net assets and liabilities disposed are as follows:

In RM Mil	**Carrying amount at disposal date**
Property, plant and equipment	33,320
Deferred tax assets	42
Other assets	3,130
Realisation of foreign currency translation reserve upon disposal	162
Borrowings	(27,074)
Other liabilities	(5,206)
	4,374
Gain on disposal of subsidiaries	1,170
Purchase consideration	5,544
Less: Cash and cash equivalents of subsidiaries disposed	(1,500)
Cash flow on disposal of subsidiaries, net of cash disposed (note 30)	4,044

NOTES TO THE FINANCIAL STATEMENTS

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33. SIGNIFICANT EVENTS

(i) On 24 April 2018, PETRONAS through its wholly-owned entity, North Montney LNG Limited Partnership ("NMLLP") has entered into a Purchase and Sales Agreement for an equity position in the LNG Canada project ("the Project") in Kitimat, British Columbia, Canada. The transaction completed on 17 July 2018 after receipt of international regulatory approvals and the completion of other associated agreements, PETRONAS (through NMLLP) owns 25% Participating Interest ("PI") of the Project, while the rest are Shell Canada Energy at 40% PI, PetroChina Canada Ltd. at 15% PI, Diamond LNG Canada Ltd. at 15% PI and Kogas Canada LNG Ltd. at 5% PI. On 1 October 2018, the LNG Canada Joint Venture declared that the LNG Canada Joint Venture Participants have made a positive Final Investment Decision for the LNG Canada Project.

(ii) On 2 September 2018, PETRONAS through its wholly-owned subsidiary, PC Oman Ventures Ltd. entered into an Asset Sale and Purchase Agreement with state-owned Oman Oil Company through its subsidiary, Makarim Gas Development LLC to acquire 10% participating interest in Block 61 of the Sultanate of Oman. The Group completed the acquisition on 27 December 2018 upon completion of all Condition Precedent and other closing conditions.

(iii) The federal government has established a steering committee to review the implementation of the Malaysia Agreement 1963, with the participation of Sabah and Sarawak state governments. The steering committee is expected to submit its final report by June 2019 and make recommendations to the federal government with respect to the implementation of the rights of Sabah and Sarawak.

34. OPERATING LEASES

Leases as lessor

The Group via its subsidiary has entered into non-cancellable operating lease agreements for Government Office Buildings ("GOB") in accordance with the Concession Agreement ("CA") with the Government of Malaysia. Under the CA, the Group will construct various parcels of GOB on land belonging to the Government. Upon completion of each parcel, the Government will execute a 25-year lease agreement over the land of the said parcel to the Group. Simultaneously, the Group will sub-lease over the same land and buildings to the Government for the same period in return for lease rentals based on predetermined rates per square foot per month. None of these leases include contingent rentals.

These leases have remaining period of non-cancellable lease terms between 10 and 25 years.

The future minimum lease receivable under non-cancellable operating leases contracted for as at the reporting date but not recognised as receivables are as follows:

		Group
In RM Mil	**2018**	**2017**
Less than one year	**3,195**	3,112
Between one and five years	**11,376**	9,630
More than five years	**12,723**	15,655
	27,294	28,397

NOTES TO THE FINANCIAL STATEMENTS

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34. OPERATING LEASES (CONTINUED)

Leases as lessee

Total future minimum lease payments under non-cancellable operating leases are as follows:

		Group		Company
In RM Mil	**2018**	**2017**	**2018**	**2017**
Less than one year	**991**	1,166	**1,841**	1,881
Between one and five years	**1,686**	2,304	**9,100**	7,376
More than five years	**336**	2,243	**3,845**	7,693
	3,013	5,713	**14,786**	16,950

35. COMMITMENTS

Outstanding commitments in respect of capital expenditure at the end of the reporting year not provided for in the financial statements are:

		Group		Company
In RM Mil	**2018**	**2017**	**2018**	**2017**
Property, plant and equipment				
Approved and contracted for				
Less than one year	**19,916**	27,000	**190**	606
Between one and five years	**12,258**	18,821	**2,991**	1,155
	32,174	45,821	**3,181**	1,761
Approved but not contracted for				
Less than one year	**14,570**	23,437	**5**	-
Between one and five years	**61,070**	61,508	**1,785**	46
More than five years	**9,620**	-	**-**	-
	85,260	84,945	**1,790**	46
	117,434	130,766	**4,971**	1,807
Share of capital expenditure of joint venture				
Approved and contracted for				
Less than one year	**6,786**	5,432	**-**	-
Between one and five years	**3,136**	1,616	**-**	-
More than five years	**2,006**	420	**-**	-
	11,928	7,468	**-**	-
Approved but not contracted for				
Less than one year	**5,246**	5,499	**-**	-
Between one and five years	**24,376**	30,909	**-**	-
More than five years	**179**	-	**-**	-
	29,801	36,408	**-**	-
	41,729	43,876	**-**	-
	159,163	174,642	**4,971**	1,807

NOTES TO THE FINANCIAL STATEMENTS
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36. CONTINGENT LIABILITIES

In RM Mil	Group 2018	Group 2017	Company 2018	Company 2017
Unsecured				
Guarantees extended to third parties	**209**	199	**-**	-
Claims filed by/disputes with various parties	**13**	-	**-**	-
Contingent payments	**133**	107	**-**	-
	355	306	**-**	-

Material litigation

The legal suit brought against the Company by the Kelantan State Government in 2010 in respect of payment of petroleum proceeds under the terms of the agreement dated 9 May 1975 entered into between the Kelantan State Government and PETRONAS is still on-going as at the reporting date. PETRONAS has been advised by its solicitors that PETRONAS has a meritorious defence to the claim. The Company cannot estimate with sufficient reliability the ultimate financial obligation, if any, of this legal suit, since it has not gone for full trial yet.

Financial guarantee

The Company provides unsecured financial guarantees to various financial institutions in respect of borrowing facilities granted to a subsidiary amounting to RM2,064 million expiring in 2021 and certain joint arrangements of the Group amounting to RM16,578 million expiring in 2019.

Other guarantees

Other than those disclosed elsewhere in the financial statements, the Group and the Company had entered into agreements which may include agreements to provide guarantees to third parties for the benefit of subsidiaries, associates and joint ventures ("Guaranteed Entities"). Such unsecured guarantees are normally provided in support of the Guaranteed Entities' normal and on-going business requirements, consistent with generally acceptable and recognised industry practices. The liability of the Group and the Company is therefore contingent and would only trigger upon the default of the Guaranteed Entities' obligation under the guarantee.

37. RELATED PARTY DISCLOSURES

For the purpose of these financial statements, parties are considered to be related to the Company if the Company has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group or the Company and the party are subject to common control. Related parties may be individuals or other entities.

Related parties also include key management personnel defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Group either directly or indirectly and an entity that provides key management personnel services to the Group. The key management personnel comprises all the Directors of the Company.

The Company's related parties include key management personnel, subsidiaries, associates, joint ventures as well as the Government of Malaysia and its related entities as the Company is wholly-owned by the Government of Malaysia.

NOTES TO THE FINANCIAL STATEMENTS
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37. RELATED PARTY DISCLOSURES (CONTINUED)

Key management personnel compensation

In RM Mil	Group and Company 2018	Group and Company 2017
Directors fees, emoluments and remuneration	**30**	21

The estimated monetary value of Directors' benefits-in-kind is RM78,000 (2017: RM104,000).

Significant transactions with related parties

In addition to the transactions detailed elsewhere in the financial statements, the Group and the Company had the following transactions with related parties during the financial year:

Group *In RM Mil*	2018	2017
Federal and State Governments of Malaysia:		
Petroleum proceeds	**(11,459)**	(9,566)
Lease income	**1,446**	1,387
Sales of petroleum products	**322**	296
Government of Malaysia's related entities:		
Sales of petroleum products and processed gas	**7,962**	8,011
Associate companies:		
Sales of petrochemical products and processed gas	**7,945**	6,845
Gas distribution fee	**(13)**	(19)
Other income	**18**	14
Joint ventures:		
Sales of industrial utilities	**39**	33
Interest income from joint ventures	**89**	82
Gas processing fee	**(37)**	(28)
Other expenses	**(211)**	(182)
Other income	**6**	5

NOTES TO THE FINANCIAL STATEMENTS
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37. RELATED PARTY DISCLOSURES (CONTINUED)

Significant transactions with related parties (continued)

Company *In RM Mil*	**2018**	**2017**
Federal and State Governments of Malaysia:		
Petroleum proceeds	**(11,459)**	(9,566)
Government of Malaysia's related entities:		
Sales of processed gas	**2,784**	3,185
Subsidiaries:		
Sales of crude oil, petroleum products, processed gas and natural gas	**55,774**	45,583
Interest income from subsidiaries	**3,676**	4,496
Purchase of crude oil, natural gas and liquefied natural gas ("LNG")	**(38,485)**	(29,188)
Gas processing and transportation fee payable	**(4,597)**	(4,477)
LNG cancellation fee	**(379)**	(378)
Charter hire fee	**(1,371)**	(1,240)
Centralised head office services charges	**1,153**	945
Research cess	**173**	148
Supplemental payments and signature bonus	**1,571**	753
Contribution to fund	**(288)**	(237)
Abandonment cess		
- paid	**(3,978)**	(16,700)
- received	**2,588**	1,208
Associate companies:		
Sales of processed gas	**5,246**	4,925
Gas distribution fee	**(13)**	(19)
Joint ventures:		
Gas processing fee	**(37)**	(28)

Information regarding outstanding balances arising from related party transactions as at 31 December 2018 are disclosed in note 11, note 16 and note 25.

Information regarding impairment losses on receivables and bad debts written off during the financial year are disclosed in note 27.

The Directors of the Company are of the opinion that the above transactions have been entered into in the normal course of business and have been established on a commercial basis.

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38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION

The Group has two reportable operating segments comprising Upstream and Downstream. Each reportable segment offers different products and services and are managed separately because they require different technology and marketing strategies. During the financial year, there has been a change in the way of certain activities are managed. Accordingly, the Group has restated the operating segment information for the prior period. The following summary describes the operations in each of the Group's reportable segments:

- Upstream - activities include oil and natural gas exploration, development and production, together with related pipeline and transportation activities as well as purchase and liquefaction of natural gas and marketing and trading of liquefied natural gas ("LNG") and processed gas.

- Downstream - activities include the supply and trading, refining, manufacturing, marketing and transportation of crude oil, petroleum and petrochemical products as well as gas processing operations and power business.

Corporate and others comprise primarily logistic and maritime segment, property segment, central treasury and project delivery and technology function.

For each of the reportable segment, the Group chief operating decision maker, which in this case is the PETRONAS Executive Leadership Team, reviews internal management reports at least on a quarterly basis.

There are varying levels of integration between Upstream segment, Downstream segment and others. This integration includes transfers of products and services between segments. Inter-segment pricing is established on a commercial basis.

Inter-segment revenues includes sales of crude oil and condensates, petroleum products, sales gas and shipping services between business segments. These transactions are eliminated on consolidation.

Performance is measured based on segment profit after tax ("PAT"), as included in the internal management reports. Segment PAT is used to measure performance as the Executive Leadership Team believes that such information is the most relevant in evaluating the results of the segments.

Segment assets are measured based on total assets (including goodwill) of a segment, as included in the internal management reports and are used to measure the return of assets of each segment.

Segment liabilities information is neither included in the internal management reports nor provided regularly to the Executive Leadership Team. Hence, no disclosure is made on segment liability.

Segment capital expenditure is the total cost incurred during the financial year to acquire non-current assets other than financial instruments and deferred tax assets.

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FINANCIAL STATEMENTS
31 December 2018

38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION (CONTINUED)

Group 2018 *In RM Mil*	Upstream	Downstream	Corporate and others	Consolidation adjustments and eliminations	Total
Revenue					
Third parties	**113,604**	**122,661**	**14,711**	**-**	**250,976**
Inter-segment	**42,991**	**5,385**	**4,491**	**(52,867)**	**-**
Total revenue	**156,595**	**128,046**	**19,202**	**(52,867)**	**250,976**
Reportable segment profit	**41,489**	**8,492**	**5,866**	**(537)**	**55,310**
Included in the measure of segment profit are:					
Depreciation and amortisation	**(26,163)**	**(4,800)**	**(3,364)**	**-**	**(34,327)**
Net write-back/(losses) of impairment on assets and write off on well costs	**4,633**	**(324)**	**(229)**	**-**	**4,080**
Interest income	**1,049**	**807**	**4,659**	**(6)**	**6,509**
Interest expense	**(5,042)**	**(332)**	**(2,483)**	**3,150**	**(4,707)**
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures	**298**	**(7)**	**393**	**-**	**684**
Tax expense	**(18,391)**	**(1,888)**	**(283)**	**(858)**	**(21,420)**
Segment assets	**305,457**	**140,496**	**229,154**	**(38,793)**	**636,314**
Included in the measure of segment assets are:					
Investments in associates and joint ventures	**5,324**	**8,655**	**1,569**	**-**	**15,548**
Additions to non-current assets other than financial instruments and deferred tax assets	**26,535**	**13,911**	**4,753**	**-**	**45,199**

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION (CONTINUED)

Group 2017 Restated *In RM Mil*	Upstream	Downstream	Corporate and others	Consolidation adjustments and eliminations	Total
Revenue					
Third parties	100,018	108,881	14,723	-	223,622
Inter-segment	35,180	4,744	4,318	(44,242)	-
Total revenue	135,198	113,625	19,041	(44,242)	223,622
Reportable segment profit	29,302	11,325	1,880	3,011	45,518
Included in the measure of segment profit are:					
Depreciation and amortisation	(22,532)	(4,622)	(3,371)	-	(30,525)
Impairment losses on assets and write-off on well costs	(951)	(118)	(822)	-	(1,891)
Interest income	627	746	3,096	(80)	4,389
Interest expense	(5,044)	(294)	(2,548)	4,192	(3,694)
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures	(422)	103	424	-	105
Tax expense	(15,532)	(2,589)	(527)	(486)	(19,134)
Segment assets	269,084	160,965	181,365	(11,564)	599,850
Included in the measure of segment assets are:					
Investments in associates and joint ventures	5,706	5,281	2,105	-	13,092
Additions to non-current assets other than financial instruments and deferred tax assets	16,314	24,420	4,326	-	45,060

Products and services information

The following are revenue from external customers by products and services:

Group *In RM Mil*	2018	2017
Petroleum products	**89,158**	79,820
Crude oil and condensates	**40,419**	33,256
Liquefied natural gas	**53,937**	49,874
Natural and processed gas	**27,857**	24,592
Petrochemicals	**19,071**	17,638
Shipping services	**5,783**	7,181
Investment income	**5,487**	3,590
Others	**9,264**	7,671
	250,976	223,622

38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION (CONTINUED)

Geographical information

Geographical revenue is determined based on location of customers. The amounts presented in non-current assets are based on the geographical location of the assets and do not include financial instruments (including investments in associates and joint ventures) nor deferred tax assets.

Group	Revenue	
In RM Mil	**2018**	**2017**
Asia	**83,812**	69,672
Malaysia	**75,066**	64,633
Japan	**25,941**	27,750
South Africa	**24,009**	22,956
Rest of the world	**42,148**	38,611
	250,976	223,622

Group	Non-current assets	
In RM Mil	**2018**	**2017**
Malaysia	**244,807**	272,602
Rest of the world	**101,185**	91,393
	345,992	363,995

Major customers

As at 31 December 2018 and 31 December 2017, there are no major customers with revenue that contribute to more than 10 percent of the Group's revenue.

39. PETROLEUM ARRANGEMENTS

The Petroleum Development Act, 1974 vests the entire ownership, rights, powers, liberties and privileges of exploiting petroleum resources on land and offshore Malaysia in PETRONAS.

Production sharing contracts

The monetisation of petroleum resources is carried out primarily by means of production sharing contracts ("PSCs") between PETRONAS and its subsidiaries and other oil and gas companies ("PSC Contractors"). Under the terms of the various PSCs, the PSC Contractors shall bear all the costs and recover their costs in barrels of crude oil or gas equivalent in accordance with the terms of their respective PSCs.

Certain terms of the PSCs are:

(i) Research cess, supplemental payments and crude oil or gas entitlement

The determination of research cess, supplemental payments, and PETRONAS' and the PSC Contractors' entitlements to crude oil or gas produced subsequent to 31 December 1992 has been based on the returns submitted by the PSC Contractors and is dependent on agreement being reached on the method of valuation of crude oil or gas and the quantum of costs incurred and claimed by contractors subject to the maximum rate provided under the respective PSCs for the year. PETRONAS' entitlements to crude oil and natural gas are taken up as income on the basis of liftings and sales respectively made by the Company.

39. PETROLEUM ARRANGEMENTS

Production sharing contracts (continued)

(ii) Property, plant and equipment

Title to all equipment and other assets purchased or acquired by the PSC Contractors exclusively for the purpose of petroleum operations, and which costs are recoverable in barrels of cost oil or gas equivalent, is vested with PETRONAS. However, the values of these assets are not taken up in the financial statements of PETRONAS other than:

- the property, plant and equipment of a subsidiary which is also a contractor to PETRONAS under certain PSCs; and
- the estimated costs of decommissioning and removing the assets and restoring the site on which they are located where there is an obligation to do so.

(iii) Inventories

Title to all crude oil held in inventories by the PSC Contractors lies with PETRONAS and title to the contractors' entitlement passes only upon delivery at point of export.

(iv) Abandonment

The PSCs stipulate the rights and obligation of PETRONAS and the PSC Contractors ("PSC Parties") in relation to the abandonment of the oil and gas properties. The PSC Contractors have the obligation to undertake abandonment activities during the PSC period except for certain PSCs or facilities where the abandonment obligation lies with PETRONAS.

In addition, the PSC Contractors are also required to make abandonment cess contribution to Abandonment Cess Fund via PETRONAS in accordance with the terms of the PSCs. The PSC Contractors have the rights to request PETRONAS to reimburse the abandonment cess up to the cumulative amount paid upon the execution of the abandonment activities.

Risk service contracts

The monetisation of petroleum resources is also carried out by means of risk service contracts ("RSCs"). Under the terms of the RSCs, the RSC Contractors provide services for the development and production of oil and gas resources on behalf of PETRONAS.

Certain terms of the RSCs are:

(i) Cost reimbursement and remuneration fees

RSC Contractors incur all upfront costs and will be reimbursed upon first commercial production. Under the terms of the RSCs, PETRONAS owns the title to all equipment and other assets purchased or acquired by the RSC Contractors for the purpose of petroleum operations. The values of these assets are taken up in the financial statements of PETRONAS upon incurrence, together with the estimated costs of decommissioning the assets where there is an obligation to do so.

The RSC Contractors are also entitled to remuneration fees which commensurate with their performance under the contract. All payments of remuneration fees are recognised as expenditures in PETRONAS' financial statements.

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39. PETROLEUM ARRANGEMENTS (CONTINUED)

Risk service contracts (continued)

(ii) Production

All barrels of crude oil and gas produced belongs to PETRONAS and inventories, if any, are taken up in the financial statements of PETRONAS.

Concession agreement

Under the terms of Concession Agreements, the subsidiaries of the Group participate in Consortium agreements for the rights to carry out exploration and exploitation activities. The Consortium bears all costs as outlined in the Annual Work Program and Budget. Title to all equipment and other assets purchased and acquired by the Consortium for the purpose of petroleum operations will remain with the Consortium for the duration of the Concession Agreement and the equity value of assets is recognised in the financial statements of the relevant subsidiaries at the Group as property, plant and equipment as per accounting policies set out in note 2.4.

Upon production, the title to the crude oil produced to which the Consortium is entitled to, shall pass to the Consortium at the point of production at the wellhead. Each member of the Consortium shall own and may separately take or dispose of its own share of the crude oil.

The Consortium shall pay to the host authority a royalty on the Consortium's total production of the crude oil for each calendar month in-kind. By virtue of its petroleum operations, the Consortium is subject to direct tax on profits, where each member of the Consortium shall separately calculate its taxable income and shall remain responsible for its own corporate income tax return.

40. FINANCIAL INSTRUMENTS

Categories of financial instruments

The table below provides an analysis of financial instruments categorised as follows:

(i) Fair value through profit or loss ("FVTPL")
- Mandatorily required by MFRS 9
- Designated upon initial recognition ("DUIR")

(ii) Fair value through other comprehensive income ("FVOCI")
- Debt instrument ("DI")
- Equity instrument designated upon initial recognition ("EIDUIR")

(iii) Amortised cost ("AC")
(iv) Loans and receivables ("L&R")
(v) Fair value through profit or loss ("FVTPL")
- Designated upon initial recognition ("DUIR")
- Held for trading ("HFT")

(vi) Available-for-sale financial assets ("AFS")
(vii) Loans and borrowings ("L&B")

NOTES TO THE FINANCIAL STATEMENTS
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40. FINANCIAL INSTRUMENTS (CONTINUED)

Categories of financial instruments (continued)

Group 2018 *In RM Mil*	Note	FVTPL-mandatorily at FVTPL	FVOCI - DI	FVOCI - EIDUIR	Amortised cost	Total carrying amount
Financial assets						
Long term receivables	*	**44**	**-**	**-**	**14,164**	**14,208**
Fund and other investments	12	**5,255**	**28**	**164**	**2,000**	**7,447**
Trade and other receivables	*	**360**	**-**	**-**	**41,386**	**41,746**
Cash and cash equivalents	18	**-**	**-**	**-**	**173,576**	**173,576**
		5,659	**28**	**164**	**231,126**	**236,977**
Financial liabilities						
Borrowings	22	**-**	**-**	**-**	**(68,572)**	**(68,572)**
Other long term liabilities	*	**(90)**	**-**	**-**	**(3,860)**	**(3,950)**
Trade and other payables	*	**(362)**	**-**	**-**	**(46,800)**	**(47,162)**
		(452)	**-**	**-**	**(119,232)**	**(119,684)**

2017 *In RM Mil*	Note	L&R/ (L&B)	FVTPL - DUIR	FVTPL - HFT	AFS	Total carrying amount
Financial assets						
Long term receivables	*	13,646	-	30	-	13,676
Fund and other investments	12	-	1,552	-	6,746	8,298
Trade and other receivables	*	37,035	-	449	-	37,484
Cash and cash equivalents	18	128,209	-	-	-	128,209
		178,890	1,552	479	6,746	187,667
Financial liabilities						
Borrowings	22	(64,149)	-	-	-	(64,149)
Other long term liabilities	*	(1,744)	-	-	-	(1,744)
Trade and other payables	*	(45,146)	-	(484)	-	(45,630)
		(111,039)	-	(484)	-	(111,523)

* These balances exclude non-financial instruments balances.

Certain fund and other investments have been designated at fair value through profit or loss upon initial recognition as management internally monitors these investments on fair value basis.

NOTES TO THE FINANCIAL STATEMENTS

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40. FINANCIAL INSTRUMENTS (CONTINUED)

Categories of financial instruments (continued)

Company 2018 *In RM Mil*	Note	FVTPL- mandatorily at FVTPL	FVOCI - EIDUIR	Amortised cost	Total carrying amount
Financial assets					
Long term receivables	*	**19,734**	**-**	**95,594**	**115,328**
Fund and other investments	12	**1,690**	**73**	**1,000**	**2,763**
Trade and other receivables	*	**4**	**-**	**21,956**	**21,960**
Cash and cash equivalents	18	**-**	**-**	**91,822**	**91,822**
		21,428	**73**	**210,372**	**231,873**
Financial liabilities					
Borrowings	22	**-**	**-**	**(39,197)**	**(39,197)**
Other long term liabilities	*	**-**	**-**	**(8,570)**	**(8,570)**
Trade and other payables	*	**(20)**	**-**	**(22,843)**	**(22,863)**
		(20)	**-**	**(70,610)**	**(70,630)**

2017 *In RM Mil*	Note	L&R/ (L&B)	FVTPL - DUIR	FVTPL - HFT	AFS	Total carrying amount
Financial assets						
Long term receivables	*	116,964	-	-	-	116,964
Fund and other investments	12	-	774	-	682	1,456
Trade and other receivables	*	20,237	-	8	-	20,245
Cash and cash equivalents	18	65,564	-	-	-	65,564
		202,765	774	8	682	204,229
Financial liabilities						
Borrowings	22	(38,360)	-	-	-	(38,360)
Other long term liabilities	*	(1,744)	-	-	-	(1,744)
Trade and other payables	*	(19,854)	-	(21)	-	(19,875)
		(59,958)	-	(21)	-	(59,979)

* These balances exclude non-financial instruments balances.

Certain fund and other investments have been designated at fair value through profit or loss upon initial recognition as management internally monitors these investments on fair value basis.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Financial risk management

As an integrated oil and gas company, the Group and the Company are exposed to various risks that are particular to its core business of upstream and downstream operations. These risks, which arise in the normal course of the Group's and of the Company's business, comprise credit risk, liquidity risk and market risk relating to interest rates, foreign currency exchange rates, equity prices and commodity prices.

The Group has policies and guidelines in place that sets the foundation for a consistent approach towards establishing an effective financial risk management across the PETRONAS Group.

Risk taking activities are undertaken within acceptable level of risk or risk appetite, whereby the risk appetite level reflects business considerations and capacity to assume such risks. The risk appetite is established at Board level, where relevant, based on defined methodology and translated into operational thresholds.

The Group's and the Company's goal in risk management are to ensure that the management understands, measures and monitors the various risks that arise in connection with their operations. Policies and guidelines have been developed to identify, analyse, appraise and monitor the dynamic risks facing the Group and the Company. Based on this assessment, each business unit adopts appropriate measures to mitigate these risks in accordance with the business unit's view of the balance between risk and reward.

Credit risk

Credit risk is the potential exposure of the Group and of the Company to losses in the event of non-performance by counterparties. The Group's and the Company's exposures to credit risk arise principally from their receivables from customers, fund and other investments and financial guarantees given to financial institutions for credit facilities granted to subsidiaries, joint ventures and associates. Credit risks are controlled by individual subsidiaries in line with PETRONAS' policies and guidelines.

Receivables and contract assets

Risk management objectives, policies and processes for managing the risk

The Group and the Company minimise credit risk by ensuring that all potential third party counterparties are assessed prior to registration and entering into new contracts. Existing third party counterparties are also subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of all available quantitative and qualitative data regarding business risks and financial standing, together with the review of any relevant third party and market information. Reports are prepared and presented to the management that cover the Group's overall credit exposure against limits and securities, exposure by segment and overall quality of the portfolio.

Depending on the types of transactions and counterparty creditworthiness, the Group and the Company further mitigate and limit risks related to credit by requiring collateral or other credit enhancements such as cash deposits, letter of credit and bank guarantees.

Management has taken reasonable steps to ensure that receivables that are neither past due nor impaired are stated at their realisable values.

NOTES TO THE
FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Receivables and contract assets (continued)

Risk management objectives, policies and processes for managing the risk (continued)

At each reporting date, the Group and the Company assess whether any of the trade receivables and contract assets are credit impaired.

The gross carrying amounts of credit impaired trade receivables and contract assets are written off (either partially or full) when there is no realistic prospect of recovery. This is generally the case when the Group or the Company determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. Nevertheless, trade receivables and contract assets that are written off could still be subject to enforcement activities.

Exposure to credit risk, credit quality and collateral

As at the end of the reporting period, the maximum exposure to credit risk arising from trade receivables and contract assets are represented by the carrying amounts in the statement of financial position.

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:
(i) significant financial difficulty of the customer;
(ii) a breach of contract such as a default; or
(iii) it is probable that the customer will enter bankruptcy or other financial reorganisation.

Exposure to losses increases with concentrations of credit risk which may exist when a number of counterparties are involved in similar activities or operate in the same industry sector or geographical area, which may result in their ability to meet contractual obligations being impacted by changes in economic, political or other conditions. The Group's principal customers with which it conducts business are located globally and there is no significant concentration of credit risk at reporting date.

Recognition and measurement of impairment loss

In managing credit risk of trade receivables and contract assets, the Group manages its debtors and takes appropriate actions (including but not limited to legal actions) to recover long overdue balances.

The Group performs credit rating assessment of all its counterparties in order to measure Expected Credit Loss ("ECL") of trade receivables for all segments using the PETRONAS Credit Risk Rating system. This credit rating assessment considers quantitative assessment using the counterparties' financial statements or a qualitative assessment of the counterparties which includes but is not limited to their reputation, competitive position, industry and geopolitical outlook.

In determining the ECL, the probability of default assigned to each counterparty is based on their individual credit rating. This probability of default is derived by benchmarking against available third party and market information, which also incorporates forward looking information.

Loss given default is the assumption of the proportion of financial asset that cannot be recovered by conversion of collateral to cash or by legal process, and is assessed based on the Group's and the Company's historical experience.

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FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Receivables and contract assets (continued)

Recognition and measurement of impairment loss (continued)

The following table provides information about the exposure to credit risk and ECLs for trade receivables and contract assets as at 31 December 2018 which are grouped together as they are expected to have similar risk nature.

Group *In RM Mil*	**Note**	**Gross carrying amount**	**Allowance for impairment losses**	**Net balance**
Credit Risk Rating				
Sovereign		**674**	**(32)**	**642**
Good		**23,530**	**(1,735)**	**21,795**
Standard		**5,885**	**(587)**	**5,298**
		30,089	**(2,354)**	**27,735**
Credit impaired				
More than 90 days past due		**28**	**(28)**	**-**
Individually impaired		**994**	**(994)**	**-**
		31,111	**(3,376)**	**27,735**
Representing				
Trade receivables	16	**30,409**	**(3,376)**	**27,033**
Contract assets	16	**702**	**-**	**702**
		31,111	**(3,376)**	**27,735**

Company *In RM Mil*	**Note**	**Gross carrying amount**	**Allowance for impairment losses**	**Net balance**
Credit Risk Rating				
Good		**4,325**	**(7)**	**4,318**
Standard		**16**	**(2)**	**14**
		4,341	**(9)**	**4,332**
Credit impaired				
Individually impaired		**754**	**(754)**	**-**
		5,095	**(763)**	**4,332**
Representing				
Trade receivables	16	**5,095**	**(763)**	**4,332**

As at the end of the reporting period, the maximum exposure to credit risk arising from receivables is equal to the carrying amount.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Receivables and contract assets (continued)

Recognition and measurement of impairment loss (continued)

The ageing of trade receivables net of impairment amount as at the end of the reporting period is analysed below:

		Group		Company
In RM Mil	2018	2017	2018	2017
At net				
Current	**23,083**	22,101	**3,556**	4,589
Past due 1 to 30 days	**943**	1,004	**355**	191
Past due 31 to 60 days	**498**	451	**30**	99
Past due 61 to 90 days	**100**	95	**3**	2
Past due more than 90 days	**2,409**	1,847	**388**	348
	27,033	25,498	**4,332**	5,229

The Group and the Company have not recognised any loss allowance for trade receivables that are secured by collateral and/or other credit enhancements such as cash deposits, letter of credit and bank guarantees.

The movements in the allowance for impairment losses of trade receivables during the year are as follows. Comparative amounts represent the allowance account for impairment losses under MFRS 139.

		Group		Company
In RM Mil	2018	2017	2018	2017
Opening balance under MFRS 139	**4,497**	5,098	**571**	373
Adjustment on initial application of MFRS 9	**181**	-	**8**	-
Opening balance under MFRS 9	**4,678**	5,098	**579**	373
Impairment (write-back)/losses recognised	**(1,453)**	(52)	**184**	198
Impairment written off/adjustments	**-**	13	**-**	-
Translation exchange difference	**151**	(562)	**-**	-
Closing balance	**3,376**	4,497	**763**	571

Fund and other investments

The Group and the Company are also exposed to counterparty credit risk from financial institutions, government and corporate counterparties through fund and other investment activities comprising primarily money market placement and investments in bonds and equities. These exposures are managed in accordance with existing policies and guidelines that define the parameters within which the investment activities shall be undertaken in order to achieve the Group's investment objective of preserving capital and generating optimal returns above appropriate benchmarks within allowable risk parameters.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Receivables and contract assets (continued)

Fund and other investments (continued)

Investments are only made with approved counterparties who met the appropriate rating and other relevant criteria, and within approved credit limits, as stipulated in the policies and guidelines. The treasury function is governed by a counterparty credit risk management framework.

The maximum exposure to credit risk is represented by the carrying amounts in the statement of financial position. The credit risk on a financial instrument is considered low, if the financial instrument has a low risk of default, the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. The Company assumes that there is a significant increase in credit risk when it is past due.

As at the reporting date, the Group and the Company have invested 99% (2017: 99%) and 100% (2017: 100%) of the investments in domestic securities respectively.

The fund and other investments are unsecured, however, in view of the sound credit rating of counterparties, management does not expect any counterparty to fail to meet its obligation.

Financial guarantees

The Group and the Company provide unsecured financial guarantees to banks in respect of banking facilities granted to certain subsidiaries, associates and joint ventures ("Group entities"). The Group and the Company monitor on an ongoing basis, the results of the Group entities and repayments made by the Group entities.

The maximum exposure to credit risk for the Company amounted to RM18,642 million (2017: RM2,109 million), which represents the outstanding banking facilities of the entities as at reporting date. As at reporting date, there was no indication that any entities would default on repayment. The fair value of the financial guarantee recognised is disclosed in note 24.

Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's exposure to liquidity arises principally from its trade and other payables, and borrowings. In managing its liquidity risk, the Group maintains sufficient cash and liquid marketable assets. The Company's current credit rating enables it to access banking facilities in excess of current and immediate future requirements of the Group and of the Company. The Group's borrowing power is not limited by its Articles of Association. However, certain covenants included in agreements impose limited restrictions on some of the debt level of PETRONAS' subsidiaries.

Maturity analysis

The table below summarises the maturity profile of the Group's and the Company's financial liabilities as at the reporting date based on undiscounted contractual payments:

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FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Maturity analysis (continued)

Group 2018 *In RM Mil*	Carrying amount	Contractual interest/ profit rates per annum %	Contractual cash flows	Within 1 year
Amortised cost				
Secured term loans				
USD floating rate loan	6,346	1.76	13,620	343
USD fixed rate loan	567	2.25	567	47
RM floating rate loan	404	4.71	512	38
Other fixed rate loan	11	10.68	11	2
Unsecured term loans				
USD floating rate loan	8,160	2.52	14,120	10,513
USD fixed rate loan	2,603	3.88	2,769	2,233
GBP floating rate loan	34	1.85	34	34
EURO floating rate loan	2,058	2.39	2,079	7
EURO fixed rate loan	2	3.27	2	1
Other floating rate loan	-	-	-	-
Other fixed rate loan	173	4.87	183	115
Fair value through profit or loss				
USD Notes	4,145	7.88	5,286	326
USD Guaranteed Notes	27,805	4.46	37,796	13,681
USD Bonds	2,072	7.63	5,376	158
Unsecured revolving credits				
USD revolving credits	788	4.96	788	788
GBP revolving credits	815	1.00	815	815
RM revolving credits	437	5.00	447	447
Other revolving credits	35	7.15	35	35
Unsecured bank overdrafts				
USD bank overdrafts	449	3.52	449	449
Other bank overdrafts	6	-	6	6
Secured Islamic financing facilities				
RM Islamic financing facilities	2,296	4.34	3,017	872
Unsecured Islamic financing facilities				
USD Islamic financing facilities	5,174	2.71	10,520	140
RM Islamic financing facilities	4,062	4.32	4,819	735
CNY Islamic financing facilities	130	6.17	160	8
Other long term liabilities	3,860	-	4,643	-
Financial guarantee	-		100	100
Trade and other payables	46,800	-	46,800	46,800
Fair value through profit or loss				
Derivative liabilities	452	-	452	362
	119,684		155,406	79,055

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31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Maturity analysis (continued)

Group 2018 *In RM Mil*	1-2 years	2-5 years	More than 5 years
Amortised cost			
Secured term loans			
USD floating rate loan	6,402	3,493	3,382
USD fixed rate loan	48	153	319
RM floating rate loan	34	86	354
Other fixed rate loan	3	6	-
Unsecured term loans			
USD floating rate loan	601	2,807	199
USD fixed rate loan	83	239	214
GBP floating rate loan	-	-	-
EURO floating rate loan	7	2,065	-
EURO fixed rate loan	-	1	-
Other floating rate loan	-	-	-
Other fixed rate loan	14	17	37
Unsecured Notes and Bonds			
USD Notes	326	4,634	-
USD Guaranteed Notes	594	4,746	18,775
USD Bonds	158	474	4,586
Unsecured revolving credits			
USD revolving credits	-	-	-
GBP revolving credits	-	-	-
RM revolving credits	-	-	-
Other revolving credits	-	-	-
Unsecured bank overdrafts			
USD bank overdrafts	-	-	-
Other bank overdrafts	-	-	-
Secured Islamic financing facilities			
RM Islamic financing facilities	226	572	1,347
Unsecured Islamic financing facilities			
USD Islamic financing facilities	5,206	5,174	-
RM Islamic financing facilities	664	2,010	1,410
CNY Islamic financing facilities	8	144	-
Other long term liabilities	272	2,877	1,494
Financial guarantee	-	-	-
Trade and other payables	-	-	-
Fair value through profit or loss			
Derivative liabilities	90	-	-
	14,736	29,498	32,117

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Maturity analysis (continued)

Group 2017 *In RM Mil*	**Carrying amount**	**Contractual interest/ profit rates per annum %**	**Contractual cash flows**	**Within 1 year**
Loans and borrowings				
Secured term loans				
USD floating rate loan	3,224	2.88	3,617	1,060
USD fixed rate loan	599	2.95	748	62
RM floating rate loan	420	4.41	538	36
Other fixed rate loan	13	11.00	17	3
Unsecured term loans				
USD floating rate loan	8,502	2.84	8,793	4,845
USD fixed rate loan	1,761	3.52	1,934	1,359
GBP floating rate loan	226	1.82	278	13
EURO floating rate loan	2,101	2.39	2,134	8
EURO fixed rate loan	22	1.60	22	20
Other floating rate loan	44	9.74	48	20
Other fixed rate loan	70	5.08	74	64
Unsecured Notes and Bonds				
USD Notes	4,060	7.88	5,499	320
USD Guaranteed Notes	27,208	4.46	37,891	1,222
USD Bonds	2,029	7.63	3,545	155
Unsecured revolving credits				
USD revolving credits	945	5.01	964	964
GBP revolving credits	917	1.20	918	918
RM revolving credits	236	5.00	242	242
Other revolving credits	31	8.40	32	32
Unsecured bank overdrafts				
USD bank overdrafts	19	2.80	19	19
Other bank overdrafts	2	6.00	2	2
Secured Islamic financing facilities				
RM Islamic financing facilities	2,140	4.95	2,884	858
Unsecured Islamic financing facilities				
USD Islamic financing facilities	5,063	2.71	5,367	137
RM Islamic financing facilities	4,383	4.29	5,420	609
CNY Islamic financing facilities	134	6.17	173	8
Other long term liabilities	1,744	-	2,729	-
Trade and other payables	45,146	-	45,146	45,146
Fair value through profit or loss – held for trading				
Derivative liabilities	484	-	484	484
	111,523		129,518	58,606

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NOTES TO THE FINANCIAL STATEMENTS
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40. FINANCIAL INSTRUMENTS (CONTINUED)

Maturity analysis (continued)

Group 2017 *In RM Mil*	**1-2 years**	**2-5 years**	**More than 5 years**
Loans and borrowings			
Secured Term Loans			
USD floating rate loan	334	1,224	999
USD fixed rate loan	64	199	423
RM floating rate loan	33	94	375
Other fixed rate loan	3	11	-
Unsecured Term Loans			
USD floating rate loan	712	3,052	184
USD fixed rate loan	81	279	215
GBP floating rate loan	13	252	-
EURO floating rate loan	8	2,118	-
EURO fixed rate loan	1	1	-
Other floating rate loan	19	9	-
Other fixed rate loan	6	4	-
Unsecured Notes and Bonds			
USD Notes	320	4,859	-
USD Guaranteed Notes	13,400	4,744	18,525
USD Bonds	155	464	2,771
Unsecured revolving credits			
USD revolving credits	-	-	-
GBP revolving credits	-	-	-
RM revolving credits	-	-	-
Other revolving credits	-	-	-
Unsecured bank overdrafts			
USD bank overdrafts	-	-	-
Other bank overdrafts	-	-	-
Secured Islamic financing facilities			
RM Islamic financing facilities	184	622	1,220
Unsecured Islamic financing facilities			
USD Islamic financing facilities	137	5,093	-
RM Islamic financing facilities	698	1,995	2,118
CNY Islamic financing facilities	8	157	-
Other long term liabilities	455	1,067	1,207
Trade and other payables	-	-	-
Fair value through profit or loss – held for trading			
Derivative liabilities	-	-	-
	16,631	26,244	28,037

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31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Maturity analysis (continued)

Company **2018** *In RM Mil*	**Carrying amount**	**Contractual interest/ profit rates per annum %**	**Contractual cash flows**	**Within 1 year**
Amortised cost				
Unsecured Notes and Bonds				
USD Notes	**4,145**	**7.88**	**5,286**	**326**
USD Guaranteed Notes	**27,805**	**4.46**	**37,437**	**13,681**
USD Bonds	**2,072**	**7.63**	**3,303**	**158**
Unsecured Islamic financing facilities				
USD Islamic financing facilities	**5,175**	**2.71**	**5,346**	**140**
Other long term liabilities	**8,570**	**-**	**9,353**	**-**
Financial guarantee	**-**	**-**	**18,642**	**18,642**
Trade and other payables	**22,843**	**-**	**22,843**	**22,843**
Fair value through profit or loss				
Derivative liabilities	**20**	**-**	**20**	**20**
	70,630		**102,230**	**55,810**

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2017 *In RM Mil*				
Loans and borrowings				
Unsecured Notes and Bonds				
USD Notes	4,060	7.88	5,499	320
USD Guaranteed Notes	27,208	4.46	37,891	1,222
USD Bonds	2,029	7.63	3,545	155
Unsecured Islamic financing facilities				
USD Islamic financing facilities	5,063	2.71	5,367	137
Other long term liabilities	1,744	-	2,729	-
Financial guarantee	-	-	2,109	2,109
Trade and other payables	19,854	-	19,854	19,854
Fair value through profit or loss – held for trading				
Derivative liabilities	21	-	21	21
	59,979		77,015	23,818

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FINANCIAL STATEMENTS
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40. FINANCIAL INSTRUMENTS (CONTINUED)

Maturity analysis (continued)

Company **2018** *In RM Mil*	**1-2 years**	**2-5 years**	**More than 5 years**
Amortised cost			
Unsecured Notes and Bonds			
USD Notes	**326**	**4,634**	**-**
USD Guaranteed Notes	**594**	**4,746**	**18,416**
USD Bonds	**158**	**474**	**2,513**
Unsecured Islamic financing facilities			
USD Islamic financing facilities	**5,206**	**-**	**-**
Other long term liabilities	**368**	**2,961**	**6,024**
Financial guarantee	**-**	**-**	**-**
Trade and other payables	**-**	**-**	**-**
Fair value through profit or loss			
Derivative liabilities	**-**	**-**	**-**
	6,652	**12,815**	**26,953**

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2017 *In RM Mil*			
Loans and borrowings			
Unsecured Notes and Bonds			
USD Notes	320	4,859	-
USD Guaranteed Notes	13,400	4,744	18,525
USD Bonds	155	464	2,771
Unsecured Islamic financing facilities			
USD Islamic financing facilities	137	5,093	-
Other long term liabilities	455	1,067	1,207
Financial guarantee	-	-	-
Trade and other payables	-	-	-
Fair value through profit or loss – held for trading			
Derivative liabilities	-	-	-
	14,467	16,227	22,503

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NOTES TO THE FINANCIAL STATEMENTS
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40. FINANCIAL INSTRUMENTS (CONTINUED)

Market risk

Market risk is the risk or uncertainty arising from change in market prices and their impact on the performance of the business. The market price changes that the Group and the Company are exposed to include interest rates, foreign currency exchange rates, commodity prices, equity prices and other indices that could adversely affect the value of the Group's and the Company's financial assets, liabilities or expected future cash flows.

Interest rate risk

The Group's and the Company's investments in fixed rate debt securities and funding through fixed rate borrowings are exposed to a risk of change in their fair values due to changes in interest rates. The Group's variable rate borrowings are exposed to a risk of change in cash flows due to changes in interest rates. Investments in equity securities and short term receivables and payables are not significantly exposed to interest rate risk.

All interest rate exposures are monitored and managed proactively in line with PETRONAS' policies and guidelines. The Group enters into hedging transactions with respect to interest rate on certain long term borrowings and other debts where necessary and appropriate, in accordance with policies and guidelines.

The interest rate profile of the Group's and the Company's interest-bearing financial instruments based on carrying amount as at reporting date is as follows:

		Group		Company
In RM Mil	2018	2017	2018	2017
Fixed rate instruments				
Financial assets	**178,508**	129,382	**155,109**	139,686
Financial liabilities	**(47,807)**	(49,198)	**(40,683)**	(38,360)
	130,701	80,184	**114,426**	101,326
Floating rate instruments				
Financial assets	**2,547**	3,390	**31,503**	40,595
Financial liabilities	**(20,765)**	(14,951)	**-**	-
	(18,218)	(11,561)	**31,503**	40,595

Since most of the Group's and the Company's financial assets and liabilities are fixed rate instruments measured at amortised cost, a change in interest rate is not expected to have material impact on the Group's and the Company's profit or loss.

Foreign exchange risk

The Group and the Company are exposed to varying levels of foreign exchange risk when they enter into transactions that are not denominated in the respective companies' functional currencies and when foreign currency monetary assets and liabilities are translated at the reporting date. The main underlying economic currencies of the Group's cash flows are Ringgit Malaysia and US Dollars.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Foreign exchange risk (continued)

The Group's and the Company's foreign exchange management policy are to minimise economic and significant transactional exposures arising from currency movements. The Group coordinates the handling of foreign exchange risks centrally typically by matching receipts and payments for the same currency. For major capital projects, the Group performs assessment of potential foreign exchange risk exposure at the investment decision phase to determine the appropriate foreign exchange risk management strategy. Residual net positions are actively managed and monitored against prescribed policies and control procedures. When deemed necessary and appropriate, the Group will enter into derivative financial instruments to hedge and minimise its exposures to the foreign currency movements.

The Group's and the Company's significant exposure to foreign currency risk, based on carrying amounts as at the reporting date is as follows:

Group *In RM Mil*	2018	2017
Denominated in USD		
Financial assets		
Loan and advances to subsidiaries	**66,608**	89,693
Cash and cash equivalents	**9,412**	11,667
Trade and other receivables	**4,784**	18,455
Fund and other investments	**315**	270
Other financial assets	**54**	71
	81,173	120,156
Financial liabilities		
Loan and advances from holding company	**(1,023)**	(13,271)
Borrowings	**(39,269)**	(31,883)
Trade and other payables	**(10,554)**	(13,909)
Other financial liabilities	**(1,516)**	(1,009)
	(52,362)	(60,072)
Net exposure	**28,811**	60,084
Denominated in RM		
Financial assets		
Cash and cash equivalents	**451**	8
Trade and other receivables	**4,526**	5,622
	4,977	5,630
Financial liabilities		
Trade and other payables	**(8,038)**	(10,266)
Net exposure	**(3,061)**	(4,636)

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Foreign exchange risk (continued)

Company *In RM Mil*	**2018**	**2017**
Denominated in USD		
Financial assets		
Loan and advances to subsidiaries	**67,118**	89,706
Cash and cash equivalents	**36,767**	27,979
Trade and other receivables	**2,584**	16,485
	106,469	134,170
Financial liabilities		
Cash and cash equivalents - subsidiaries' cash with PETRONAS Integrated Financial Shared Service Centre	**(28,221)**	(16,704)
Borrowings	**(39,197)**	(38,360)
Trade and other payables	**(6,069)**	(8,521)
Other financial liabilities	**(1,486)**	(1,729)
	(74,973)	(65,314)
Net exposure	**31,496**	68,856

Sensitivity analysis for a given market variable provided in this note, discloses the effect on profit or loss and equity as at 31 December 2018 assuming that a reasonably possible change in the relevant market variable had occurred at 31 December 2018 and been applied to the risk exposures in existence at that date to show the effects of reasonably possible changes in price on profit or loss and equity to the next annual reporting date. Reasonably possible changes in market variables used in the sensitivity analysis are based on implied volatilities, where available, or historical data for equity and commodity prices and foreign exchange rates. Reasonably possible changes in interest rates are based on management judgment and historical experience.

The sensitivity analysis is hypothetical and should not be considered to be predictive of future performance because the Group's actual exposure to market prices is constantly changing with changes in the Group's portfolio of among others, commodity, debt and foreign currency contracts. Changes in fair values or cash flows based on a variation in a market variable cannot be extrapolated because the relationship between the change in market variable and the change in fair value or cash flows may not be linear. In addition, the effect of a change in a given market variable is calculated independently of any change in another assumption and mitigating actions that would be taken by the Group. In reality, changes in one factor may contribute to changes in another, which may magnify or counteract the sensitivities.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Foreign exchange risk (continued)

The following table demonstrates the indicative pre-tax effects on the profit or loss and equity of applying reasonably foreseeable market movements in the following currency exchange rates:

2018 *In RM Mil*	**Appreciation in foreign currency rate %**	**Equity**	**Group Profit or loss**	**Equity**	**Company Profit or loss**
USD	**10**	**3,389**	**149**	**-**	**3,150**
MYR	**10**	**-**	**(306)**	**-**	**-**

2017 *In RM Mil*	**Appreciation in foreign currency rate %**	**Equity**	**Group Profit or loss**	**Equity**	**Company Profit or loss**
USD	10	3,659	2,577	-	6,886
MYR	10	-	(464)	-	-

A depreciation in foreign currency rate above would have had equal but opposite effect, on the basis that all other variables remain constant.

Equity price risk

Equity price risk arises from the Group's and the Company's investments in equity securities. Exposures to equity price risk are managed in accordance to Group's existing policies and guidelines. The Group and the Company monitor the equity investments on a portfolio basis and a performance benchmark is established for each investment portfolio giving consideration to portfolio objectives and return expectation. All buy and sell decisions are monitored by the Group Treasury Division.

The Group and the Company also hold equity investments that were previously classified as available-for-sale financial assets. During the year, these equity investments have been reclassified to FVTPL and FVOCI. Reports on the equity portfolio performance are submitted to the Group's and the Company's senior management on a regular basis.

The Group's and the Company's exposure to equity price risk based on carrying amounts as at the reporting date is as follows:

		Group		**Company**
In RM Mil	**2018**	**2017**	**2018**	**2017**
Local equities	**514**	627	**7**	9
Foreign equities	**305**	3,168	**-**	-
	819	3,795	**7**	9

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31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Equity price risk (continued)

The following table demonstrates the indicative pre-tax effects on the profit or loss and equity of applying reasonably foreseeable market movements in the following equities:

2018 *In RM Mil*	**Increase in price based on average change in index rate %**	**Equity**	**Group Profit or loss**	**Equity**	**Company Profit or loss**
Local equities	**10**	**6**	**147**	**-**	**1**
Foreign equities	**15 to 20**	**43**	**-**	**-**	**-**

2017 *In RM Mil*	**Increase in price based on average change in index rate %**	**Equity**	**Group Profit or loss**	**Equity**	**Company Profit or loss**
Local equities	15	7	55	1	-
Foreign equities	15 to 30	521	-	-	-

A decrease in price based on average change in index rate above would have had equal but opposite effect, on the basis that all other variables remain constant.

Commodity price risk

The Group is exposed to changes in crude oil, gas and petroleum products prices which may affect the value of the Group's assets, liabilities or expected future cash flows. To mitigate these exposures from a business perspective, the Group enters into various financial instruments. In effecting these transactions, the Group operates within policies, guidelines and procedures designed to ensure that risks are minimised. All financial instruments positions are marked-to-market by independent risk management department and reported to management for performance monitoring and risk management purposes on a daily basis.

Since the Group undertakes hedging using commodity derivatives for the majority of its transactions, a change in commodity price is not likely to result in a significant impact on the Group's profit or loss and equity.

Fair value information

The carrying amounts of cash and cash equivalents, short term receivables and payables, revolving credits and bank overdrafts reasonably approximate their fair values due to the relatively short term nature of these financial instruments.

The following table analyses financial instruments carried at fair value and those not carried at fair value for which fair value is disclosed, together with their fair values and carrying amounts shown in the statement of financial position.

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40. FINANCIAL INSTRUMENTS (CONTINUED)

Fair value information (continued)

Group 2018 *In RM Mil*	**Fair value of financial instruments carried at fair value** Level 1	Level 2	Total
Financial assets			
Quoted shares	**790**	**28**	**818**
Quoted securities	**123**	**-**	**123**
Commodity swaps	**-**	**2**	**2**
Malaysian Government Securities	**-**	**44**	**44**
Corporate Bonds and Sukuk	**-**	**4,209**	**4,209**
Forward foreign exchange contracts	**-**	**28**	**28**
Forward gas contracts	**223**	**83**	**306**
Forward oil/gas price swaps	**24**	**-**	**24**
Interest rate swaps	**-**	**63**	**63**
	1,160	**4,457**	**5,617**
Financial liabilities			
Commodity swaps	**-**	**(19)**	**(19)**
Forward foreign exchange contracts	**-**	**(158)**	**(158)**
Forward gas contracts	**(281)**	**(5)**	**(286)**
Forward oil/gas price swaps	**(8)**	**-**	**(8)**
	(289)	**(182)**	**(471)**

Group 2018 *In RM Mil*	**Fair value of financial instruments not carried at fair value** Level 2	Level 3	Total	**Carrying amount**
Financial assets				
Unquoted shares	**-**	**238**	**238**	**238**
Malaysian Government Securities	**-**	**44**	**44**	**44**
Long term receivables	**-**	**5,511**	**5,511**	**5,511**
Finance lease receivables	**-**	**9,599**	**9,599**	**9,599**
	-	**15,392**	**15,392**	**15,392**
Financial liabilities				
Notes and Bonds	**(35,233)**	**-**	**(35,233)**	**(34,022)**
Term loans	**-**	**(20,349)**	**(20,349)**	**(20,358)**
Islamic financing facilities	**(5,138)**	**(7,845)**	**(12,983)**	**(11,662)**
Other long term liabilities	**-**	**(1,992)**	**(1,992)**	**(1,889)**
	(40,371)	**(30,186)**	**(70,557)**	**(67,931)**

40. FINANCIAL INSTRUMENTS (CONTINUED)

Fair value information (continued)

Group **2017** *In RM Mil*	Fair value of financial instruments carried at fair value **Level 1**	**Level 2**	**Total**
Financial assets			
Quoted shares	3,754	41	3,795
Quoted securities	981	162	1,143
Malaysian Government Securities	-	42	42
Corporate Bonds and Sukuk	-	2,875	2,875
Forward foreign exchange contracts	-	219	219
Forward gas contracts	166	-	166
Forward oil/gas price swaps	64	-	64
Interest rate swaps	-	30	30
	4,965	3,369	8,334
Financial liabilities			
Commodity swaps	-	(51)	(51)
Forward foreign exchange contracts	-	(117)	(117)
Forward gas contracts	(221)	-	(221)
Forward oil/gas price swaps	(95)	-	(95)
	(316)	(168)	(484)

Group **2017** *In RM Mil*	Fair value of financial instruments not carried at fair value **Level 2**	**Level 3**	**Total**	**Carrying amount**
Financial assets				
Unquoted shares	-	704	704	443
Malaysian Government Securities	-	9	9	9
Long term receivables	-	4,276	4,276	4,275
Finance lease receivables	-	9,371	9,371	9,371
	-	14,360	14,360	14,098
Financial liabilities				
Notes and Bonds	(36,292)	-	(36,292)	(33,297)
Term loans	-	(16,971)	(16,971)	(16,982)
Islamic financing facilities	(5,063)	(6,657)	(11,720)	(11,720)
Other long term liabilities	-	(1,772)	(1,772)	(1,744)
	(41,355)	(25,400)	(66,755)	(63,743)

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FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Fair value information (continued)

Company **2018** *In RM Mil*	Fair value of financial instruments carried at fair value **Level 1**	**Level 2**	**Level 3**	**Total**
Financial assets				
Quoted shares	**7**	**-**	**-**	**7**
Malaysian Government Securities	**-**	**38**	**-**	**38**
Corporate bond and sukuk	**-**	**1,645**	**-**	**1,645**
Forward foreign exchange contracts	**-**	**4**	**-**	**4**
Long term receivables	**-**	**-**	**19,734**	**19,734**
	7	**1,687**	**19,734**	**21,428**
Financial liabilities				
Forward foreign exchange contracts	**-**	**(20)**	**-**	**(20)**

Company **2018** *In RM Mil*	Fair value of financial instruments not carried at fair value **Level 2**	**Level 3**	**Total**	**Carrying amount**
Financial assets				
Unquoted shares	**-**	**73**	**73**	**73**
Long term receivables	**-**	**96,030**	**96,030**	**95,594**
Deposits with licenced bank	**1,000**	**-**	**1,000**	**1,000**
	1,000	**96,103**	**97,103**	**96,667**
Financial liabilities				
Notes and Bonds	**(35,239)**	**-**	**(35,239)**	**(34,022)**
Islamic financing facilities	**(5,141)**	**-**	**(5,141)**	**(5,175)**
Other long term liabilities	**-**	**(8,603)**	**(8,603)**	**(8,570)**
	(40,380)	**(8,603)**	**(48,983)**	**(47,767)**

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31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Fair value information (continued)

Company 2017 In RM Mil	Fair value of financial instruments carried at fair value Level 1	Level 2	Total
Financial assets			
Quoted shares	9	-	9
Malaysian Government Securities	-	33	33
Corporate Bonds and Sukuk	-	1,338	1,338
Forward foreign exchange contracts	-	8	8
	9	1,379	1,388
Financial liabilities			
Forward foreign exchange contracts	-	(21)	(21)

Company 2017 In RM Mil	Fair value of financial instruments not carried at fair value Level 2	Level 3	Total	Carrying amount
Financial assets				
Unquoted shares	-	76	76	76
Long term receivables	-	119,479	119,479	116,964
	-	119,555	119,555	117,040
Financial liabilities				
Notes and Bonds	(36,292)	-	(36,292)	(33,297)
Islamic financing facilities	(5,070)	-	(5,070)	(5,063)
Other long term liabilities	-	(1,772)	(1,772)	(1,744)
	(41,362)	(1,772)	(43,134)	(40,104)

Derivatives

The calculation of fair value for derivative financial instruments depends on the type of instruments. The fair value of interest rate swap agreements are estimated by discounting expected future cash flows using current market interest rates and yield curve over the remaining term of the instrument. The fair value of forward foreign currency exchange contracts is based on the fair value difference between forward exchange rates and the contracted rate. The fair value of commodity swap and commodity forward contracts is based on the fair value difference between market price at the date of measurement and the contracted price.

Non-derivative financial instruments

Fair value, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the end of the reporting period.

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40. FINANCIAL INSTRUMENTS (CONTINUED)

Income/(expense), net gains and losses arising from financial instruments

Group 2018 In RM Mil	Interest income	Interest expense	Impairment loss	Others	Total
Financial assets at fair value through profit or loss:					
- mandatorily required by MFRS 9	**260**	**-**	**-**	**133**	**393**
Financial assets at fair value through OCI:					
- recognised in equity	**-**	**-**	**-**	**(140)**	**(140)**
Financial assets at amortised cost:					
- recognised in profit or loss	**6,249**	**-**	**1,491**	**(320)**	**7,420**
- recognised in equity	**-**	**-**	**-**	**(158)**	**(158)**
Financial liabilities at amortised cost	**-**	**(2,855)**	**-**	**(783)**	**(3,638)**
Total	**6,509**	**(2,855)**	**1,491**	**(1,268)**	**3,877**
2017					
Financial instruments at fair value through profit or loss:					
- Held for trading	2	-	-	69	71
- Designated upon initial recognition	133	-	-	47	180
Held-to-maturity	-	-	-	-	-
Available-for-sale					
- recognised in profit or loss	239	-	(8)	478	709
- recognised in equity	-	-	-	(1,517)	(1,517)
Loans and receivables					
- recognised in profit or loss	4,015	-	(383)	(7,320)	(3,688)
- recognised in equity	-	-	-	(1,910)	(1,910)
Financial liabilities at amortised cost	-	(2,810)	-	3,300	490
Total	4,389	(2,810)	(391)	(6,853)	(5,665)

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

40. FINANCIAL INSTRUMENTS (CONTINUED)

Income/(expense), net gains and losses arising from financial instruments (continued)

Company **2018** *In RM Mil*	**Interest income**	**Interest expense**	**Impairment loss**	**Others**	**Total**
Financial instruments at fair value through profit or loss					
- Mandatorily required by MFRS 9	**70**	**-**	**-**	**3,080**	**3,150**
Financial assets at amortised cost	**6,990**	**-**	**(134)**	**599**	**7,455**
Financial liabilities at amortised cost	**-**	**(2,512)**	**-**	**(783)**	**(3,295)**
Total	**7,060**	**(2,512)**	**(134)**	**2,896**	**7,310**
2017					
Financial instruments at fair value through profit or loss					
- Designated upon initial recognition	41	-	-	-	41
Held-to-maturity	-	-	-	-	-
Available-for-sale					
- recognised in profit or loss	78	-	-	119	197
- recognised in equity	-	-	-	(20)	(20)
Loans and receivables	6,758	-	(198)	(12,254)	(5,694)
Financial liabilities at amortised cost	-	(2,222)	-	3,297	1,075
Total	6,877	(2,222)	(198)	(8,858)	(4,401)

Others relate to gains and losses arising from financial instruments other than interest income, interest expense and impairment loss such as realised and unrealised foreign exchange gains or losses, dividend income and fair value gains or losses.

41. CAPITAL MANAGEMENT

The Group, as an essential part of its capital management strategy, is committed to a policy of financial prudence as outlined in the PETRONAS Group Corporate Financial Policy. The Group's capital structure consists of consolidated equity plus debt, defined as the current and long term portions of the Group's debt.

The objective of the Group's capital management is to maintain an optimal capital structure and ensure availability of funds in order to meet financial obligations, support business growth and maximise shareholders' value. The Group monitors and maintains a prudent level of total debt to total assets ratio so as to enable compliance with all covenants.

There were no changes in the Group's approach to capital management during the year.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

42. AMENDMENTS TO MFRS AND PRONOUNCEMENTS ISSUED BY MASB

Adoption of new and revised pronouncements

As of 1 January 2018, the Group and the Company adopted the following pronouncements that have been issued by the MASB and are applicable as listed below:

Effective for annual periods beginning on or after 1 January 2018

MFRS 9 *Financial Instruments (2014)*
MFRS 15 *Revenue from Contracts with Customers*
Amendments to MFRS 15 *Revenue from Contracts with Customers: Clarifications to MFRS 15*
Amendments to MFRS 140 *Investment Property: Transfers of Investment Property*
IC Interpretation 22 *Foreign Currency Transactions and Advance Consideration*

The principal changes in accounting policies and their effects are set out below:

i. MFRS 9 *Financial Instruments*

MFRS 9 replaces the guidance in MFRS 139 *Financial Instruments: Recognition and Measurement* on the classification and measurement of financial assets and financial liabilities, impairment of financial assets, and on hedge accounting.

MFRS 9 contains a new classification and measurement approach for financial assets that reflects the business model in which assets are managed and their cash flow characteristics. The new standard contains three principal classifications for financial assets: measured at amortised cost, fair value through other comprehensive income ("FVOCI") and fair value through profit or loss ("FVTPL") and eliminates the existing MFRS 139 categories of held-to-maturity, loans and receivables and available-for-sale.

MFRS 9 also replaces the incurred loss model in MFRS 139 with a forward-looking expected credit loss (ECL) model. Under MFRS 9, loss allowances will be measured on either 12-month ECLs or lifetime ECLs.

The Group and the Company generally applied the requirements of MFRS 9 retrospectively with practical expedients and transitional exemptions as allowed by the standard, as follows:

a) The Group has not restated comparative information for prior periods with respect to classification and measurement (including impairment) requirements. Differences in the carrying amounts of financial assets and financial liabilities resulting from the adoption of MFRS 9 are recognised in retained profits and reserves as at 1 January 2018. Accordingly, the information presented for 2017 does not generally reflect the requirements of MFRS 9, but rather those of MFRS 139 *Financial Instruments*.

b) The following assessments have been made on the basis of the facts and circumstances that existed at the date of initial application:
- The determination of the business model within which a financial asset is held.
- The designation and revocation of previous designations of certain financial assets and financial liabilities as measured at FVTPL.
- The designation of certain investments in equity instruments not held for trading as at FVOCI.

c) If an investment in a debt security had low credit risk at date of initial application of MFRS 9, the Group has assumed that the credit risk on the asset had not increased significantly since its initial recognition.

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42. AMENDMENTS TO MFRS AND PRONOUNCEMENTS ISSUED BY MASB (CONTINUED)

Adoption of new and revised pronouncements (continued)

Effective for annual periods beginning on or after 1 January 2018 (continued)

ii. MFRS 15 *Revenue from Contracts with Customers*

MFRS 15 *Revenue from Contracts with Customers* replaces the guidance in MFRS 111 *Construction Contracts*, MFRS 118 *Revenue*, IC Interpretation 13 *Customer Loyalty Programmes*, IC Interpretation 15 *Agreements for Construction of Real Estate*, IC Interpretation 18 *Transfers of Assets from Customers* and IC Interpretation 131 *Revenue – Barter Transactions Involving Advertising Services.* MFRS 15 *Revenue from Contracts with Customers* provides a single model for accounting for revenue arising from contracts with customers, focusing on the identification and satisfaction of performance obligations.

The initial application of the abovementioned pronouncements did not have any material impact to the financial statements of the Group and the Company except as mentioned in note 46.

Pronouncements yet in effect

The following pronouncements that have been issued by the MASB will become effective in future financial reporting periods and have not been adopted by the Group and the Company in these financial statements:

Effective for annual periods beginning on or after 1 January 2019

MFRS 16 *Leases*
Amendments to MFRS 3 *Business Combinations (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 11 *Joint Arrangements (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 112 *Income Taxes (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 123 *Borrowing Costs (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 128 *Investments in Associates and Joint Ventures: Long-term Interests in Associates and Joint Ventures*
Amendments to MFRS 119 *Employee Benefits: Plan Amendment, Curtailment or Settlement*
IC Interpretation 23 *Uncertainty over Income Tax Treatments*

Effective for annual periods beginning on or after 1 January 2020

Amendments to MFRS 3 *Business Combinations (Definition of Business)*
Amendments to MFRS 101 *Presentation of Financial Statements (Definition of Material)*
Amendments to MFRS 108 *Accounting Policies, Changes in Accounting Estimates and Errors (Definition of Material)*

Effective for annual periods beginning on or after 1 January 2021

MFRS 17 *Insurance Contracts*

Effective for a date yet to be confirmed

Amendments to MFRS 10 *Consolidated Financial Statements: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*
Amendments to MFRS 128 *Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*

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31 December 2018

42. AMENDMENTS TO MFRS AND PRONOUNCEMENTS ISSUED BY MASB (CONTINUED)

Pronouncements yet in effect (continued)

The Group and the Company are expected to adopt the abovementioned pronouncements beginning from the respective dates the pronouncements become effective. The initial application of the abovementioned pronouncements are not expected to have any material impact to the financial statements of the Group and the Company except as mentioned below:

MFRS 16 *Leases*

MFRS 16 replaces existing leases guidance in MFRS 117 *Leases*, IC Interpretation 4 *Determining whether an Arrangement contains a Lease*, IC Interpretation 115 *Operating Leases – Incentives* and IC Interpretation 127 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*.

MFRS 16 introduces a single, on balance sheet lease accounting for lessees. A lessee recognises a-right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases, leases of low-value items and variable lease payments. Lessor accounting remains similar to the current standard which continues to be classified as finance lease or operating lease.

The Group and the Company have assessed the estimated financial impact on its financial statements upon initial application of MFRS 16. As allowed by the transitional provision of MFRS 16, the Group and the Company have elected the modified retrospective approach with no restatement of comparatives. From the preliminary assessment of a significant portion of the arrangements, the cumulative adjustments resulting from the initial application of MFRS 16 to be recognised in retained profits and reserves as at 1 January 2019, are estimated as follows:

	Estimated adjustments at 1 January 2019	
In RM Mil	**Group**	**Company**
Increase in assets	5,760	8,925
Decrease in equity	762	47
Increase in lease liabilities	6,522	8,972

The Group and the Company are finalising the assessment of other arrangements. The final impact of adopting MFRS 16 on 1 January 2019 is not expected to change significantly.

For leases where PETRONAS Group is a lessor, there is no significant impact on leases as at 1 January 2019.

New pronouncement not applicable to the Group and the Company

The MASB has issued pronouncement which is not yet effective, but for which is not relevant to the operations of the Group and the Company and hence, no further disclosure is warranted.

Effective for annual periods beginning on or after 1 January 2019

Amendments to MFRS 9 *Financial Instruments: Prepayment Features with Negative Compensation*

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43. KEY SUBSIDIARIES AND ACTIVITIES

		Effective Percentage Holding 2018 %	2017 %	Country of Incorporation	Principal Activities
*	PETRONAS Carigali Sdn. Bhd.	**100**	100	Malaysia	Petroleum exploration, development and production
	PC JDA Limited	**100**	100	Republic of Mauritius	Petroleum operations
	PETRONAS Carigali Overseas Sdn. Bhd.	**100**	100	Malaysia	Investment holding and petroleum operations
	E&P Malaysia Venture Sdn. Bhd.	**100**	100	Malaysia	Petroleum operations
•*	PETRONAS International Corporation Ltd.	**100**	100	Malaysia	Investment holding
	PETRONAS Carigali Iraq Holding B.V.	**100**	100	Netherlands	Petroleum operations
	PETRONAS Carigali Chad Exploration & Production Inc.	**100**	100	Cayman Islands	Investment holding
	PETRONAS Carigali (Chad EP) Inc.	**100**	100	Cayman Islands	Petroleum operations
	PETRONAS Chad Marketing Inc.	**100**	100	Cayman Islands	Trading of petroleum products
	PC Vietnam Limited	**100**	100	Republic of Mauritius	Petroleum operations
	PC (Myanmar) Holdings Limited	**100**	100	Hong Kong	Investment holding
	PC Myanmar (Hong Kong) Limited	**100**	100	Hong Kong	Petroleum operations
•	PC Muriah Ltd.	**100**	100	Malaysia	Petroleum operations
	PETRONAS Australia Pty Limited	**100**	100	Australia	Investment holding
	PAPL (Upstream) Pty Limited	**100**	100	Australia	Exploration and production of coal seam gas
	PAPL (Downstream) Pty Limited	**100**	100	Australia	Production and transportation of liquefied natural gas for export
	PETRONAS Carigali (Jabung) Ltd.	**100**	100	Bahamas	Petroleum operations
	PETRONAS Carigali Myanmar Inc.	**100**	100	Liberia	Petroleum operations
	PETRONAS Carigali Nile Ltd.	**100**	100	Republic of Mauritius	Petroleum operations
	PETRONAS (E&P) Overseas Ventures Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	Natuna 1 B.V.	**100**	100	Netherlands	Petroleum operations
	PETRONAS Carigali Canada B.V.	**100**	100	Netherlands	Investment holding
	PETRONAS Energy Canada Ltd.	**100**	100	Canada	Petroleum and gas exploration, development and production
	North Montney LNG Limited Partnership	**100**	-	Canada	Participation in LNG Canada construction and operations activities, liquefaction of natural gas as LNG, storage, marketing of LNG

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43. KEY SUBSIDIARIES AND ACTIVITIES (CONTINUED)

		Effective Percentage Holding 2018 %	2017 %	Country of Incorporation	Principal Activities
	PETRONAS E&P Argentina S.A.	**100**	100	Argentina	Petroleum and gas exploration, development and production
	PETRONAS Azerbaijan Upstream Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	PETRONAS South Caucasus S.à r.l.	**100**	100	Luxembourg	Investment holding
	PETRONAS Azerbaijan (Shah Deniz) S.à r.l.	**100**	100	Luxembourg	Petroleum operations
	PETRONAS Carigali (Turkmenistan) Sdn. Bhd.	**100**	100	Malaysia	Petroleum operations
•	PICL (Egypt) Corporation Ltd.	**100**	100	Malaysia	Investment holding, exploration and production of oil and gas
	PC Oman Ventures Ltd.	**100**	-	Mauritius	Petroleum operations
	PETRONAS Power Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	PETRONAS LNG Sdn. Bhd.	**100**	100	Malaysia	Investment holding
•	PETRONAS LNG Ltd.	**100**	100	Malaysia	Trading of natural gas and LNG
	PETRONAS Energy Trading Limited	**100**	100	United Kingdom	Trading of natural gas and LNG
*	Malaysia LNG Sdn. Bhd.	**90**	90	Malaysia	Liquefaction and sale of LNG
*	Malaysia LNG Dua Sdn. Bhd.	**80**	80	Malaysia	Liquefaction and sale of LNG
*	Malaysia LNG Tiga Sdn. Bhd.	**60**	60	Malaysia	Liquefaction and sale of LNG
*	PETRONAS LNG 9 Sdn. Bhd.	**70**	80	Malaysia	Purchase and liquefaction of natural gas and marketing of LNG
•*	PETRONAS Floating LNG 1 (L) Ltd.	**100**	100	Malaysia	Developing, constructing, owning, operating and maintaining an integrated floating natural gas liquefaction, storage and off loading facility
•*	PETRONAS Floating LNG 2 (L) Ltd.	**100**	100	Malaysia	Developing, constructing, owning, operating and maintaining an integrated floating natural gas liquefaction, storage and off loading facility
	PETRONAS Energy & Gas Trading Sdn. Bhd.	**100**	-	Malaysia	Export and import of liquefied petroleum gas sale of gas to the user through mains export and import of other solid, liquid and gaseous fuels and related products

43. KEY SUBSIDIARIES AND ACTIVITIES (CONTINUED)

		Effective Percentage Holding 2018 %	Effective Percentage Holding 2017 %	Country of Incorporation	Principal Activities
*	PETRONAS Marketing International Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	Engen Limited	**74**	74	South Africa	Refining of crude oil and marketing of refined petroleum products
@*	PETRONAS Dagangan Berhad	**69.9**	69.9	Malaysia	Domestic marketing of petroleum products
@*	PETRONAS Gas Berhad	**60.6**	60.6	Malaysia	Processing and transmission of natural gas
	Regas Terminal (Sg. Udang) Sdn. Bhd.	**60.6**	60.6	Malaysia	Manage and operate LNG regasification terminal
	Pengerang LNG2 Sdn. Bhd.	**39.4**	39.4	Malaysia	Manage and operate LNG regasification terminal
*	PETRONAS Refinery & Petrochemical Corporation Sdn. Bhd.	**100**	100	Malaysia	Development and ownership of Refinery and Petrochemical Integrated Complex
	Pengerang Refining Company Sdn. Bhd. (f.k.a. PRPC Refinery & Cracker Sdn. Bhd.)	**-**	100	Malaysia	Blending, processing or cracking of crude, condensates, feedstock or intermediate feedstock
	PRPC Utilities & Facilities Sdn. Bhd.	**100**	100	Malaysia	Supply and service of utilities and common facilities and infrastructures
	Pengerang Power Sdn. Bhd.	**100**	100	Malaysia	Developing and operating a power generation plant and distribution of electricity and steam
*	PETRONAS Penapisan (Melaka) Sdn. Bhd.	**100**	100	Malaysia	Refining and condensation of crude oil
*	Malaysian Refining Company Sdn. Bhd.	**100**	100	Malaysia	Refining and condensation of crude oil
*	PETRONAS Penapisan (Terengganu) Sdn. Bhd.	**100**	100	Malaysia	Refining and condensation of crude oil
*	PETRONAS Trading Corporation Sdn. Bhd.	**100**	100	Malaysia	Marketing of crude oil and trading in crude oil and petroleum products and investment holding
•	PETCO Trading Labuan Company Ltd.	**100**	100	Malaysia	Marketing of crude oil and trading in crude oil and petroleum products
	PETCO Trading (UK) Limited	**100**	100	United Kingdom	Marketing of crude oil and trading in crude oil and petroleum products
	PETCO Trading DMCC	**100**	100	United Arab Emirates	Trading of petroleum products

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43. KEY SUBSIDIARIES AND ACTIVITIES (CONTINUED)

		Effective Percentage Holding 2018 %	Effective Percentage Holding 2017 %	Country of Incorporation	Principal Activities
@*	PETRONAS Chemicals Group Berhad	**64.3**	64.3	Malaysia	Investment holding
	PETRONAS Chemicals Aromatics Sdn. Bhd.	**45**	45	Malaysia	Production and sale of aromatics products
	PETRONAS Chemicals Ammonia Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ammonia, syngas and carbon monoxide
•	PETRONAS Chemicals Marketing (Labuan) Ltd.	**64.3**	64.3	Malaysia	Marketing of petrochemical products
	PETRONAS Chemicals Fertiliser Kedah Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of urea, ammonia and methanol
	PETRONAS Chemicals Glycols Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ethylene oxide, ethylene glycol and other related by-products
	PETRONAS Chemicals Marketing Sdn. Bhd.	**64.3**	64.3	Malaysia	Marketing of petrochemical products
	PETRONAS Chemicals Methanol Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of methanol
	PETRONAS Chemicals MTBE Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of methyl tertiary butyl ether and propylene
	PETRONAS Chemicals Olefins Sdn. Bhd.	**64.3**	56.6	Malaysia	Production and sale of ethylene, propylene and other hydrocarbon by-products
	Asean Bintulu Fertilizer Sdn. Bhd.	**40.9**	40.9	Malaysia	Processing of natural gas into urea and ammonia
	PETRONAS Chemicals Derivatives Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ethylene oxide derivatives, propylene derivatives and related chemical products
	PETRONAS Chemicals Polyethylene Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of polyethylene
	PETRONAS Chemicals Ethylene Sdn. Bhd.	**56.3**	56.3	Malaysia	Production and sale of ethylene
	PETRONAS Chemicals Fertiliser Sabah Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ammonia and urea
	PETRONAS Chemicals LDPE Sdn. Bhd.	**64.3**	38.6	Malaysia	Production and sale of low-density polyethylene pellets ("LDPE")
	Pengerang Petrochemical Company Sdn. Bhd. (f.k.a. PRPC Polymers Sdn Bhd.)	**-**	64.3	Malaysia	Development of Polymer plant and production of Polypropylene ("PP"), and LDPE.

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43. KEY SUBSIDIARIES AND ACTIVITIES (CONTINUED)

		Effective Percentage Holding 2018 %	Effective Percentage Holding 2017 %	Country of Incorporation	Principal Activities
*	PrimeSourcing International Sdn. Bhd.	**100**	100	Malaysia	Marketing and trading of steel, mechanical and electrical instrumentation, chemical and catalyst
*	PETRONAS Lubricants International Sdn. Bhd.	**100**	100	Malaysia	Investment holding, manufacturing and trading of lubricant products
	PLI (Netherlands) B.V.	**100**	100	Netherlands	Investment holding
	PETRONAS Lubricants Italy S.p.A	**100**	100	Italy	Manufacturing and marketing of lubricant products
	PETRONAS Lubrificantes Brasil S.A.	**100**	100	Brazil	Manufacturing and marketing of lubricant products
@*	MISC Berhad	**62.6**	62.6	Malaysia	Shipping and shipping related activities
	AET Tanker Holdings Sdn. Bhd.	**62.6**	62.6	Malaysia	Investment holding
@	Malaysia Marine and Heavy Engineering Holdings Berhad	**41.6**	41.6	Malaysia	Investment holding
•	Gas Asia Terminal (L) Pte. Ltd.	**62.6**	62.6	Malaysia	Development and ownership of LNG floating storage units
•	MISC Capital (L) Ltd.	**62.6**	62.6	Malaysia	Special purpose vehicle for financing arrangement
•	MISC Offshore Floating Terminals (L) Ltd.	**62.6**	62.6	Malaysia	Offshore floating terminals ownership
•	Gumusut-Kakap Semi-Floating Production System (L) Limited	**62.6**	62.6	Malaysia	Owning and leasing of semi-submersible floating production system
	MISC Tankers Sdn. Bhd.	**62.6**	62.6	Malaysia	Investment holding and provision of management services
	MISC Tanker Holdings Sdn. Bhd.	**62.6**	62.6	Malaysia	Investment holding
	MISC Tanker Holdings (Bermuda) Limited	**62.6**	62.6	Bermuda	Investment holding
*	KLCC (Holdings) Sdn. Bhd.	**100**	100	Malaysia	Investment holding, property development management and provision of management services
	Kuala Lumpur Convention Centre Sdn. Bhd.	**100**	100	Malaysia	Property investment
	Putrajaya Holdings Sdn. Bhd.	**64.4**	64.4	Malaysia	Property development and investment
@	KLCC Property Holdings Berhad	**75.5**	75.5	Malaysia	Investment holding, property investment and provision of management services
^@	KLCC Real Estate Investment Trust ("KLCC REIT")	**-**	-	Malaysia	To invest in a Shariah compliant portfolio of real estate assets and real estate related assets

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43. KEY SUBSIDIARIES AND ACTIVITIES (CONTINUED)

		Effective Percentage Holding 2018 %	Effective Percentage Holding 2017 %	Country of Incorporation	Principal Activities
	Suria KLCC Sdn. Bhd.	**45.5**	45.5	Malaysia	Property investment
	Putrajaya Homes Sdn. Bhd.	**64.4**	64.4	Malaysia	General construction and property development
	Putrajaya Ventures Sdn. Bhd.	**64.4**	64.4	Malaysia	Property development
	Putrajaya Bina Sdn. Bhd.	**64.4**	64.4	Malaysia	Leasing of building and property management
*	Institute of Technology PETRONAS Sdn. Bhd.	**100**	100	Malaysia	Institute of higher learning
•*	Energas Insurance (L) Limited	**100**	100	Malaysia	Offshore captive insurance business
•*	PETRONAS Capital Limited	**100**	100	Malaysia	Investment holding
•	PETRONAS Global Sukuk Limited	**100**	100	Malaysia	Investment holding
ß	Petroleum Research Fund	**-**	-	Malaysia	Providing financial contributions to research activities relating to petroleum and other energy sources industry
ß	Abandonment Cess Fund	**-**	-	Malaysia	Manage, hold and utilise the trust fund to discharge obligations for the Abandonment of Petroleum Facilities in Malaysia
*	PETRONAS Assets Sdn. Bhd.	**100**	100	Malaysia	Owning and leasing of assets
*	PETRONAS Hartabina Sdn. Bhd.	**100**	100	Malaysia	Property holding
*	PETRONAS Technical Training Sdn. Bhd.	**100**	100	Malaysia	Provision of training services
*	PETRONAS Management Training Sdn. Bhd.	**100**	100	Malaysia	Provision of training services
*	PETRONAS NGV Sdn. Bhd.	**100**	100	Malaysia	Promoting and retailing of natural gas for vehicles
*	PETRONAS Research Sdn. Bhd.	**100**	100	Malaysia	Provision of research, advisory and technology development services
*	PETRONAS Technical Services Sdn. Bhd.	**100**	100	Malaysia	Provision of technical and project management services
*	Petrosains Sdn. Bhd.	**100**	100	Malaysia	Management of a petroleum discovery centre
*	Sanzbury Stead Sdn. Bhd.	**100**	100	Malaysia	Property holding

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43. KEY SUBSIDIARIES AND ACTIVITIES (CONTINUED)

		Effective Percentage Holding 2018 %	Effective Percentage Holding 2017 %	Country of Incorporation	Principal Activities
*	OGP Technical Services Sdn. Bhd.	**100**	100	Malaysia	Provision of technical and project management services
*	Marmel Incorporated	**100**	100	Republic of Liberia	Investment holding
*	PETRONAS e-Learning Solutions Sdn. Bhd.	**100**	100	Malaysia	Dormant

* Subsidiaries held directly by the Company.

• Companies incorporated under the Labuan Companies Act 1990.

@ The shares of these subsidiaries are quoted on the Main Market of Bursa Malaysia Securities Berhad.

^ The Group does not hold any ownership interest in KLCC Real Estate Investment Trust ("KLCC REIT"). However, the Group exercises power by virtue of its control over KLCC REIT Management Sdn. Bhd., the manager of KLCC REIT. KLCC REIT units are stapled to the ordinary shares of KLCC Property Holdings Berhad ("KLCCP") such that the shareholders of KLCCP are exposed to variable returns from its involvement with KLCC REIT and the Group has the ability to affect those returns through its power over KLCC REIT. Consequently, KLCC REIT is regarded as a subsidiary of the Group.

ß The Group does not hold any ownership interest in these funds. However, the Group has the rights to appoint and remove members of Board of Trustees, which is the decision making body of the funds and able to determine the manner in which balance of the funds, after fulfilment of certain obligation, should be distributed upon dissolution. Consequently, the funds is regarded as subsidiaries of the Group.

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44. KEY ASSOCIATES AND ACTIVITIES

		Effective Percentage Holding 2018 %	Effective Percentage Holding 2017 %	Country of Incorporation	Principal Activities
	BASF PETRONAS Chemicals Sdn. Bhd.	**25.7**	25.7	Malaysia	Purchases propylene and n-butane feedstock from the Group for production, marketing and sale of acrylic, oxo and butanediol products
	Bintulu Port Holdings Berhad	**28.5**	28.5	Malaysia	Port management
	Cameroon Oil Transportation Company - S.A.	**29.8**	29.8	Republic of Cameroon	Pipeline operations
	El Behera Natural Gas Liquefaction Company S.A.E.	**35.5**	35.5	Egypt	Manufacturing and production of LNG for the purpose of export
#	Gas Malaysia Berhad	**9.0**	9.0	Malaysia	Selling, marketing, distribution and promotion of natural gas
	IDKU Natural Gas Liquefaction Company S.A.E.	**38.0**	38.0	Egypt	Manufacturing and production of LNG for the purpose of export
	Pacific North West LNG Ltd	**62.0**	62.0	Canada	Overall management and control of the business and affairs of LNG Partnership
	Pacific North West LNG Limited Partnership	**62.0**	62.0	Canada	Evalution, engineering and final investment decision and eventual construction and operation of planned LNG factory
	Pacificlight Power Pte Ltd	**30.0**	30.0	Singapore	Build, own and operate power generation plant
	Tchad Oil Transportation Company - S.A.	**30.2**	30.2	Republic of Chad	Pipeline operations
	The Egyptian LNG Company S.A.E.	**35.5**	35.5	Egypt	Owning, managing and developing the land and the common facilities related to the Egyptian LNG facility
#	South Caucasus Pipeline Holding Company	**15.2**	15.2	Cayman Islands	Investment holding
#	South Caucasus Pipeline Company	**15.5**	15.5	Cayman Islands	Pipeline operations
#	Azerbaijan Gas Supply Company Ltd	**12.4**	12.4	Cayman Islands	Marketing and selling of natural gas

Although the Group has less than 20% of the ownership in the equity interest of these associates, the Group has determined that it has significant influence over the financial and operating policy of the associate through representation on the said associate's board of directors.

Although the Group has 62% of the ownership in the equity interest of Pacific NorthWest LNG Ltd, the governing agreements and constitutive documents for this entity do not allow the Group to control this entity as voting requires unanimous approval of the shareholders or their representatives.

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45. KEY JOINT VENTURES AND ACTIVITIES

	Effective Percentage Holding 2018 %	2017 %	Country of Incorporation	Principal Activities
BP PETRONAS Acetyls Sdn. Bhd.	**19.3**	19.3	Malaysia	Manufacture, sell and distribute acetic acid
Dragon LNG Group Limited	**50.0**	50.0	United Kingdom	Operate LNG import and storage terminal
Trans Thai-Malaysia (Thailand) Ltd.	**50.0**	50.0	Thailand	Gas pipeline transportation and gas separation services
Trans Thai-Malaysia (Malaysia) Sdn. Bhd.	**50.0**	50.0	Malaysia	Transporting and delivering gas products
Indianoil PETRONAS Private Limited	**50.0**	50.0	India	Manufacture and bottling services of Liquid Petroleum Gas ("LPG")
Kimanis Power Sdn. Bhd.	**36.4**	36.4	Malaysia	Generation and sale of electricity
Taninthayi Pipeline Co. LLC	**40.9**	40.9	Cayman Islands	Transportation of gas
• Malaysia Deepwater Floating Terminal (Kikeh) Ltd.	**31.8**	31.8	Malaysia	Floating production storage and off-loading ("FPSO") owner
Guangxi Nanning Yuchai Lube Co., Ltd.	**50.0**	50.0	China	Manufacturing and marketing of lubricant products
Guangxi Beihai Yuchai High Quality Lube Co., Ltd.	**50.0**	50.0	China	Manufacturing and marketing of lubricant products
Pengerang Terminals (Two) Sdn. Bhd.	**40.0**	40.0	Malaysia	Undertake activities related to terminal storage facilities for petroleum and petrochemical products
Pengerang Refining Company Sdn. Bhd. (f.k.a PRPC Refinery & Cracker Sdn. Bhd.)	**50.0**	-	Malaysia	Undertake blending, processing or cracking of crude, condensates, feedstock or intermediate feedstock

• Companies incorporated under the Labuan Companies Act 1990.

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46. IMPACT OF THE ADOPTION OF PRONOUNCEMENTS

(i) Classification and measurement of financial assets and financial liabilities on the date of initial application of MFRS 9 Financial Instruments

The following tables and the accompanying notes below show the measurement under MFRS 139 *Financial Instruments* and the new measurement categories under MFRS 9 for each class of the Group's and the Company's financial assets and financial liabilities as at 1 January 2018 based on the business model assessment.

			At 1.1.2018		
			Reclassification to new MFRS 9 category		
Group *In RM Mil*	**At 31.12.2017**	**Remeasurement**	**Amortised cost**	**FVTPL-mandatorily at FVTPL**	**FVOCI-equity**
Category under MFRS 139					
Financial assets					
Loans and receivables					
Long term receivables	13,646	(65)	**13,581**	**-**	**-**
Trade and other receivables	37,035	(463)	**36,572**	**-**	**-**
Cash and cash equivalent	128,209	-	**128,209**	**-**	**-**
	178,890	(528)	**178,362**	**-**	**-**
Available for sale ("AFS")					
Malaysian Government Securities	9	-	**-**	**9**	**-**
Corporate Bonds and Sukuk	2,854	-	**-**	**2,854**	**-**
Quoted shares	3,241	-	**-**	**3,241**	**-**
Quoted securities	37	-	**-**	**37**	**-**
Unquoted shares	443	26	**-**	**166**	**303**
	6,584	26	**-**	**6,307**	**303**
Fair value through profit or loss ("FVTPL") - Held for trading ("HFT")					
Interest rate swaps	30	-	**-**	**30**	**-**
Forward gas contracts	166	-	**-**	**166**	**-**
Forward foreign exchange contracts	219	-	**-**	**219**	**-**
Forward oil/gas price swaps	64	-	**-**	**64**	**-**
	479	-	**-**	**479**	**-**

NOTES TO THE FINANCIAL STATEMENTS
31 December 2018

46. IMPACT OF THE ADOPTION OF PRONOUNCEMENTS (CONTINUED)

(i) Classification and measurement of financial assets and financial liabilities on the date of initial application of MFRS 9 (continued)

Group *In RM Mil*	At 31.12.2017	Remeasurement	At 1.1.2018 Reclassification to new MFRS 9 category Amortised cost	 FVTPL-mandatorily at FVTPL
Category under MFRS 139				
Financial assets				
FVTPL - Designated upon initial recognition ("DUIR")				
Malaysia Government Securities	33	-	-	**33**
Corporate Bonds and Sukuk	21	-	-	**21**
Quoted shares	554	-	-	**554**
Quoted securities	1,106	-	-	**1,106**
	1,714	-	-	**1,714**
Financial liabilities				
Other financial liabilities measured at amortised cost				
Other long term liabilities	(1,744)	-	**(1,744)**	-
Borrowings	(64,149)	-	**(64,149)**	-
Trade and other payables	(45,146)	-	**(45,146)**	-
	(111,039)	-	**(111,039)**	-
FVTPL - HFT				
Commodity swaps	(51)	-	-	**(51)**
Forward gas contracts	(221)	-	-	**(221)**
Forward foreign exchange contracts	(117)	-	-	**(117)**
Forward oil/gas price swaps	(95)	-	-	**(95)**
	(484)	-	-	**(484)**

Reclassification from AFS to FVTPL-mandatorily at FVTPL

These are investments which are not held for strategic purposes. As a result, the carrying amount of RM6,281 million was reclassified from available-for-sale to fair value though profit or loss. The fair value gains of RM1,210 million were reclassified from fair value reserve to retained profits at 1 January 2018.

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46. IMPACT OF THE ADOPTION OF PRONOUNCEMENTS (CONTINUED)

(i) Classification and measurement of financial assets and financial liabilities on the date of initial application of MFRS 9 (continued)

Company *In RM Mil*	At 31.12.2017	Remeasurement	At 1.1.2018 Reclassification to new MFRS 9 category Amortised cost	 FVTPL-mandatorily at FVTPL	 FVOCI-equity
Category under MFRS 139					
Financial assets					
Loans and receivables					
Long term receivables	116,964	(210)	**116,754**	-	-
Trade and other receivables	20,237	(27)	**20,210**	-	-
Cash and cash equivalent	65,564	-	**65,564**	-	-
	202,765	(237)	**202,528**	-	-
AFS					
Corporate bond and sukuk	597	-	-	**597**	-
Quoted shares	85	-	-	**10**	**75**
	682	-	-	**607**	**75**
FVTPL - DUIR					
Malaysia Government Securities	33	-	-	**33**	-
Corporate bond and sukuk	741	-	-	**741**	-
	774	-	-	**774**	-
FVTPL - HFT					
Derivative assets	8	-	-	**8**	-
	8	-	-	**8**	-

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46. IMPACT OF THE ADOPTION OF PRONOUNCEMENTS (CONTINUED)

(i) Classification and measurement of financial assets and financial liabilities on the date of initial application of MFRS 9 (continued)

			At 1.1.2018	
			Reclassification to new MFRS 9 category	
Company *In RM Mil*	**At 31.12.2017**	**Remeasurement**	**Amortised cost**	**FVTPL- mandatorily at FVTPL**
Financial liabilities				
Other financial liabilities measured at amortised cost				
Other long term liabilities	(1,744)	-	**(1,744)**	-
Borrowings	(38,360)	-	**(38,360)**	-
Trade and other payable	(19,854)	-	**(19,854)**	-
	(59,958)	-	**(59,958)**	-
FVTPL - HFT				
Derivative liabilities	(21)	-	-	**(21)**
	(21)	-	-	**(21)**

(ii) Impact on financial statements

The following table summarises the impact of the above changes on the Group's and the Company's financial position as at initial application:

Group *In RM Mil*	**At 31.12.2017**	**MFRS 9 adjustments**	**At 1.1.2018**
Consolidated Statement of Financial Position			
Long term receivables	13,993	(65)	**13,928**
Trade and other receivables	44,035	(463)	**43,572**
Fund and other investments	8,298	26	**8,324**
Retained profits	330,727	769	**331,496**
Non-controlling Interests	43,041	(61)	**42,980**
Other reserves	59,067	(1,210)	**57,857**

NOTES TO THE **FINANCIAL STATEMENTS**

31 December 2018

46. IMPACT OF THE ADOPTION OF PRONOUNCEMENTS (CONTINUED)

(ii) Impact on financial statements (continued)

Company *In RM Mil*	**At 31.12.2017**	**MFRS 9 adjustments**	**At 1.1.2018**
Consolidated Statement of Financial Position			
Long term receivables	117,595	(210)	**117,385**
Trade and other receivables	20,384	(27)	**20,357**
Retained profits	276,612	(227)	**276,385**
Other reserves	10	(10)	**-**

(iii) Impairment of financial assets

The Group and the Company has determined that the application of MFRS 9's impairment requirements at 1 January 2018 results in an additional allowance for impairment losses as follows:

In RM Mil	**Group**	**Company**
Loss allowance at 31 December 2017 under MFRS 139	7,636	737
Additional impairment losses recognised at 1 January 2018 on:		
Long term receivables	65	210
Trade and other receivables	463	27
Loss allowance at 1 January 2018 under MFRS 9	8,164	974

Additional information about how the Group and the Company measure the allowance for impairment losses are described in note 40.

(iv) Impacts of MFRS 15 Revenue from Contracts with Customers

The initial application of MFRS 15 did not have a significant impact on the Group's and the Company's financial statements except for certain classifications made to conform with MFRS 15 requirement.

(v) Hedge accounting

The Group has elected to continue applying the hedge accounting model in MFRS 139.

INDEPENDENT **AUDITORS' REPORT**
to the members of Petroliam Nasional Berhad

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

OPINION

We have audited the financial statements of Petroliam Nasional Berhad, which comprise the statements of financial position as at 31 December 2018 of the Group and of the Company, and the statements of profit or loss and other comprehensive income, statements of changes in equity and statements of cash flows of the Group and of the Company for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 138 to 277.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Group and of the Company as at 31 December 2018, and of their financial performance and cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

BASIS FOR OPINION

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the Financial Statements* section of our auditors' report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

INDEPENDENCE AND OTHER ETHICAL RESPONSIBILITIES

We are independent of the Group and of the Company in accordance with *the By-Laws (on Professional Ethics, Conduct and Practice)* of the Malaysian Institute of Accountants ("By-Laws") and the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the Group and of the Company for the current year. These matters were addressed in the context of our audit of the financial statements of the Group and of the Company as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

KEY AUDIT MATTERS (CONTINUED)

Impairment of property, plant and equipment ("PPE") and intangible assets ("IA")	
Refer note 3 and note 10, respectively, to the Financial Statements	
The key audit matter	**How the matter was addressed in our audit**
The Group operates in the oil and gas sector which has been affected by the volatilities of the oil and gas prices. This gives rise to a risk that the carrying amounts of the Group's PPE and IA, especially in the Upstream operating segment might exceed their recoverable amounts, and consequently, the carrying amount may need to be impaired. The Group has estimated the recoverable amount for each cash generating unit ("CGU") by forecasting and discounting future cash flows relevant to the CGU. As a result, a net impairment write back of RM3,331 million (2017: RM347 million) for PPE and net impairment loss of RM20 million (2017: RM1,745 million) for IA (refer note 27) was recognised in the current financial year. We have identified the evaluation of the carrying amount of the Group's PPE and IA of RM310,385 million (2017: RM327,458 million) (refer note 3) and RM22,513 million (2017: RM22,079 million) (refer note 10) respectively at 31 December 2018 as a key audit matter because: • it is material to the consolidated financial statements and represents 52% (2017: 58%) of the Group's total assets; and • the estimation of recoverable amounts involved a significant degree of judgement exercised and assumptions made by the Group. Key judgemental aspects include assumptions of oil and gas prices, expenditures, production profile and the use of an appropriate discount rate.	Our audit procedures in addressing this key audit matter included, amongst others: i) We considered the appropriateness of the Group's determination of CGUs based on our knowledge of the Group's business and its internal reporting. ii) We evaluated judgement exercised and the following key assumptions used in the estimation of recoverable amounts, among others: • production profile – assessed whether the production profile is within the field/reserve lives; • long term outlook of prices – compared to information published by external analysts; • expenditures – compared to information included in the Group's approved budget and actual historical information; and • discount rate – involved our valuation specialist in challenging the appropriateness of the discount rate used. iii) We have also considered the adequacy of the Group's disclosures about those assumptions to which the outcome of the impairment assessment is most sensitive to. Based on the above procedures, the carrying amount of the Group's PPE and IA is appropriate.

INDEPENDENT **AUDITORS' REPORT**

to the members of Petroliam Nasional Berhad

KEY AUDIT MATTERS (CONTINUED)

Measurement of provision for decommissioning, dismantling, removal and restoration ("DDRR")	
Refer note 24 to the Financial Statements	
The key audit matter	**How the matter was addressed in our audit**
The provision outstanding for DDRR of the Group and the Company amounts to RM35,641 million (2017: RM18,935 million) and RM16,451 million (2017: RM12,299 million) (refer note 24) respectively as at the end of current financial year, which represents 36% (2017: 19%) and 27% (2017: 23%) of the Group's and the Company's non - current liabilities. The estimation of DDRR provision, especially for assets in the Upstream operating segment ("Upstream assets"), involves high level of judgement, complex calculations and estimation. In addition, DDRR activities of the Group and the Company especially for Upstream assets are rather preliminary in nature given that majority of the assets are still in production stage. As such, there is limited historical information for which the Group and the Company can benchmark against to determine the expected future costs. These factors increase the degree of complexity and judgement in estimating the DDRR provision. The Group and the Company review the DDRR provision on an annual basis, which includes an assessment of the interest rate, inflation rate and expected future costs.	Our audit procedures in addressing this key audit matter included, amongst others: i) We agreed the data used in the calculation of the DDRR provision to the originating source. ii) We evaluated the following key assumptions used in the DDRR provision calculation, among others: • interest and inflation rates – compared to information from external sources; and • expected future costs – compared to costs incurred on recent similar transactions. iii) We re-performed the calculation of the DDRR provision to determine mathematical accuracy. Based on the above procedures, the measurement of provision for DDRR of the Group and the Company are appropriate.

INDEPENDENT AUDITORS' REPORT

to the members of Petroliam Nasional Berhad

INFORMATION OTHER THAN THE FINANCIAL STATEMENTS AND AUDITORS' REPORT THEREON

The Directors of the Company are responsible for the other information. The other information comprises the information included in the Directors' Report, but does not include the financial statements of the Group and of the Company and our auditors' report thereon.

Our opinion on the financial statements of the Group and of the Company does not cover the Directors' Report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Group and of the Company, our responsibility is to read the Directors' Report and, in doing so, consider whether the Directors' Report is materially inconsistent with the financial statements of the Group and of the Company or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of the Directors' Report, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF THE DIRECTORS FOR THE FINANCIAL STATEMENTS

The Directors of the Company are responsible for the preparation of financial statements of the Group and of the Company that give a true and fair view in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia. The Directors are also responsible for such internal control as the Directors determine is necessary to enable the preparation of financial statements of the Group and of the Company that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Group and of the Company, the Directors are responsible for assessing the ability of the Group and of the Company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements of the Group and of the Company as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

INDEPENDENT **AUDITORS' REPORT**

to the members of Petroliam Nasional Berhad

AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS (CONTINUED)

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements of the Group and of the Company, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of the Group and of the Company.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Group or of the Company to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Group and of the Company or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group or the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements of the Group and of the Company, including the disclosures, and whether the financial statements of the Group and of the Company represent the underlying transactions and events in a manner that gives a true and fair view.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

INDEPENDENT **AUDITORS' REPORT**

to the members of Petroliam Nasional Berhad

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

In accordance with the requirements of the Companies Act 2016 in Malaysia, we report that the subsidiaries of which we have not acted as auditors are disclosed in Appendix I.

OTHER MATTER

This report is made solely to the members of the Company, as a body, in accordance with Section 266 of the Companies Act 2016 in Malaysia and for no other purpose. We do not assume responsibility to any other person for the content of this report.

KPMG PLT
(LLP0010081-LCA & AF 0758)
Chartered Accountants

Petaling Jaya, Malaysia
Date: 28 February 2019

Abdullah Abu Samah
Approval Number: 02013/06/2020 J
Chartered Accountant

APPENDIX I

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS

KLCC (Holdings) Sdn. Bhd. and its subsidiaries:

• Putrajaya Homes Sdn. Bhd.	• Midciti Resources Sdn. Bhd.
• Convex Malaysia Sdn. Bhd.	• Rantau Land Sdn. Bhd.
• Gas District Cooling (M) Sdn. Bhd.	• Gagasan Ria Sdn. Bhd.
• Gilang Cendana Sdn. Bhd.	• Gas District Cooling (Putrajaya) Sdn. Bhd.
• Hasrat Intisari (M) Sdn. Bhd.	• Heritage Lane Sdn. Bhd.
• Putrajaya Bina Sdn. Bhd.	• Ilham Merpati Sdn. Bhd.
• Midciti Sukuk Berhad	• Idaman Putrajaya Sdn. Bhd.
• Kenyalang Murni Sdn. Bhd.	• Impian Moden Sdn. Bhd.
• KLCC Projeks Sdn. Bhd.	• Kelana Perkasa Sdn. Bhd.
• Rantau Properties Sdn. Bhd.	• Rantau Recreation Sdn. Bhd.
• KLCC Projeks Services Sdn. Bhd.	• KLCC Properties Sdn. Bhd.
• Kuala Lumpur City Park Berhad	• Komponen Abadi Sdn. Bhd.
• Layar Intan Sdn. Bhd.	• Rantau Homes Sdn. Bhd.
• KLCC Real Estate Investment Trust (@)	• Kuala Lumpur Convention Centre Sdn. Bhd.
• KLCC REIT Management Sdn. Bhd.	• Lembah Putrajaya Sdn. Bhd.
• Menara Putrajaya Sdn. Bhd.	• Metro Kemasik Sdn. Bhd.
• Purnama Sepi Sdn. Bhd.	• Pedoman Semarak Sdn. Bhd.
• Putrajaya Development Sdn. Bhd.	• Putrajaya Holdings Sdn. Bhd.
• Putrajaya Group Sdn. Bhd.	• Putrajaya Management Sdn. Bhd.
• Putrajaya Projects Sdn. Bhd.	• Putrajaya Properties Sdn. Bhd.
• Putrajaya Resources Sdn. Bhd.	• Putrajaya Ventures Sdn. Bhd.
• Senandung Asli Sdn. Bhd.	• Serba Harapan (M) Sdn. Bhd.
• Tapak Senja Sdn. Bhd.	• Gas District Cooling (Holdings) Sdn. Bhd.
• Gas District Cooling (KLIA) Sdn. Bhd.	• Gas District Cooling (UTP) Sdn. Bhd.
• Arah Moden Sdn. Bhd.	• Indah Putrajaya Sdn. Bhd.
• Quantum Panorama Sdn. Bhd.	• Suria KLCC Sdn. Bhd.
• Arena Johan Sdn. Bhd.	• Arena Merdu Sdn. Bhd.
• Asas Klasik Sdn. Bhd.	• Impian Cemerlang Sdn. Bhd.
• KLCC Parking Management Sdn. Bhd.	• KLCC Urusharta Sdn. Bhd.
• Kompleks Dayabumi Sdn. Bhd.	• KLCC Property Holdings Bhd. (@)

Marmel Incorporated and its subsidiaries:

• Darton Ltd.	• Darton U.S. Holdings, Inc.
• GCB Associates, LLC	• Grabhorn Properties, LLC
• Sparknight, LLC	• World Gateway Investments, Inc.
• Paterson, LLC	• World Gateway Property Owners Association
• WG Parcel B, LLC	

APPENDIX I

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (CONTINUED)

MISC Berhad and its subsidiaries:

• AET Agencies Inc.	• AET Lightering Services LLC
• AET Inc. Limited	• AET Petroleum Tanker (M) Sdn. Bhd.
• AET Offshore Services Inc.	• AET Shipmanagement (Malaysia) Sdn. Bhd.
• Eaglestar Marine B.V.	• AET Tankers India Pte. Ltd.
• Eaglestar Shipmanagement (S) Pte. Ltd.	• AET UK Ltd.
• AET Tanker Holdings Sdn. Bhd.	• AET Tankers Pte. Ltd.
• Asia LNG Transport Sdn. Bhd.	• FPSO Ventures Sdn. Bhd.
• MISC Nigeria Ltd.	• Malaysia Marine and Heavy Engineering Sdn. Bhd.
• Malaysian Maritime Academy Sdn. Bhd.	• Atenea Services S.A.
• AET STS Limited Inc.	• AET Azerbaijan Limited
• MISC Offshore Floating Terminals Dua (L) Ltd.	• MISC Agencies Sdn. Bhd.
• Hendham Enterprises Ltd.	• MISC Enterprises Holdings Sdn. Bhd.
• Asia LNG Transport Dua Sdn. Bhd.	• Malaysia Offshore Mobile Production (Labuan) Ltd.
• MISC Agencies India Pvt. Ltd.	• MISC Offshore Floating Terminals (L) Ltd.
• MISC Berhad (UK) Ltd.	• MISC Tanker Holdings Sdn. Bhd.
• MISC Capital (L) Ltd.	• MMHE LNG Sdn. Bhd.
• AET Bermuda One Limited	• AET Sea Shuttle AS
• MISC Ferry Services Sdn. Bhd.	• Gas Asia Terminal (L) Pte. Ltd.
• MISC International (L) Ltd.	• MISC Tankers Sdn. Bhd.
• MISC Offshore Holdings (Brazil) Sdn. Bhd.	• Puteri Delima Sdn. Bhd.
• MISC Ship Management Sdn. Bhd.	• Puteri Firus Sdn. Bhd.
• Seri Cemara (L) Private Limited	• Puteri Intan Sdn. Bhd.
• Oldson Ventures Ltd.	• Puteri Mutiara Satu (L) Pte. Ltd.
• MISC Tanker Holdings (Bermuda) Limited	• Puteri Nilam Sdn. Bhd.
• MTTI Sdn. Bhd.	• Techno Indah Sdn. Bhd.
• Malaysia Marine and Heavy Engineering Holdings Berhad (@)	• MISC PNG Shipping Ltd.
• MISC do Brasil Servicos de Energia Ltd.	• AET MCV Delta Sdn. Bhd.
• Puteri Delima Satu (L) Pte. Ltd.	• AET MCV Beta L.L.C.
• Puteri Firus Satu (L) Pte. Ltd.	• AET MCV Alpha Pte. Ltd.
• Puteri Intan Satu (L) Pte. Ltd.	• AET Brasil Servicos STS Ltda.
• Puteri Nilam Satu (L) Pte. Ltd.	• GK O & M (L) Limited
• Puteri Zamrud Satu (L) Pte. Ltd.	• MISC Agencies (Japan) Ltd.
• Puteri Zamrud Sdn. Bhd.	• MISC Maritime Services Sdn. Bhd.
• AET Tankers Kazakhstan LLP	• Sungai Udang Port Sdn. Bhd.
• AET Shipmanagement (USA) LLC	• AET Tanker Kazakhtan LLP
• AET Tankers (Suezmax) Pte. Ltd.	• MISC Agencies (Netherlands) B.V.
• AET Shuttle Tankers Sdn. Bhd.	• AET Singapore One Pte. Ltd.
• AET MCV Alpha L.L.C.	• Zangwill Business Corp.
• AET MCV Gamma L.L.C.	• Seri Camar (L) Private Limited
• AET Brasil Servicos Maritamos Ltda.	• MMHE International Sdn. Bhd.
• AET MCV Beta Pte. Ltd.	• MMHE EPIC Marine & Services Sdn. Bhd.
• AET Holdings (L) Pte. Ltd.	• Thailand Offshore Floating Terminals (L) Ltd.
• Seri Camellia (L) Private Limited	• Gumusut-Kakap Semi-Floating Production System (L) Limited
• Seri Cempaka (L) Private Limited	• Paramount Tankers Corporation
• Seri Cenderawasih (L) Private Limited	• Odley Worldwide Inc

APPENDIX I

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (CONTINUED)

MISC Berhad and its subsidiaries (continued):

• AMI Manning Services Private Limited	• Eaglestar Marine Holdings (L) Pte. Ltd.
• AET Product Tankers Sdn. Bhd.	• Eaglestar Shipmanagement (L) Pte. Ltd.
• Twyford International Business Corp.	• Eaglestar Marine (S) Pte. Ltd.

PETRONAS Carigali Sdn. Bhd. and its subsidiaries:

• E&P Venture Solutions Co. Sdn. Bhd.	• E&P Malaysia Venture Sdn. Bhd.
• PC JDA Ltd.	• PC Lampung II Ltd.
• PC (SE Palung Aru) Ltd.	• PC Randugunting Ltd.
• PETRONAS Carigali (Australia) Pty. Ltd.	• PC Mozambique (Rovuma Basin) Ltd.
• PETRONAS Carigali (Oman) Ltd.	• PETRONAS Carigali Overseas Sdn. Bhd.
• PETRONAS Carigali (Ketapang) Ltd.	• PETRONAS Carigali (Karapan) Ltd.
• PETRONAS Carigali (Surumana) Ltd.	• PC Ketapang II Ltd.
• E&P O&M Services Sdn. Bhd.	• PETRONAS Carigali Nigeria Limited
• Vestigo Petroleum Sdn. Bhd.	• PETRONAS Carigali Mozambique E&P Ltd.
• PC Algeria Ltd. (μ)	• PETRONAS Carigali (West Glagah Kambuna) Ltd.
• PETRONAS Carigali White Nile (5B) Ltd.	

PETRONAS Lubricants International Sdn. Bhd.'s subsidiaries:

• PETRONAS Lubricants Italy S.p.A (ã)	• PETRONAS Lubricants Portugal Lda (ã)
• PETRONAS Lubricants Africa Ltd. (ã)	• PLI (Netherlands) B.V. (ã)
• PETRONAS Lubrificantes Brasil S.A. (ã)	• PETRONAS Lubricants China Company Limited (ã)
• PETRONAS Lubricants France S.a.s. (ã)	• PETRONAS Lubricants Poland Sp. Zo.o (ã)
• PT PLI Indonesia	• PETRONAS Lubricants Argentina S.A. (ã)
• PETRONAS Lubricants Netherlands B.V. (ã)	• PETRONAS Lubricants Great Britain LTD (ã)
• PETRONAS Lubricants Belgium N.V. (ã)	• PETRONAS Lubricants Deutschland Gmbh (ã)
• PLAL Egypt LLC	• PETRONAS Marketing China Company Limited (ã)
• PETRONAS Madeni Yaglar TIC LTD STI (ã)	• PETRONAS Lubricants (India) Private Limited (μ)
• PETRONAS Lubricants Spain S.L.U. (ã)	• PETRONAS Lubricants Shandong Company Limited (ã)
• Arexons Srl. (ã)	• PL Russia LLC

APPENDIX I

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (CONTINUED)

PETRONAS International Corporation Ltd. and its subsidiaries:

• PETRONAS Carigali Brunei Co. Ltd.	• PETRONAS Carigali International Sdn. Bhd.
• Labuan Energy Corporation Limited	• Petroliam Manpower Services Mexico S.A. De C.V.
• PETRONAS Suriname E&P B.V.	• LNG Investments Europe Limited
• PAPL (Upstream) Pty Ltd.	• PC Carigali Mexico Operations S.A. de C.V.
• PC North Madura II Ltd	• Petronas Carigali (Urga) Operating Company LLC
• PC Muriah Ltd.	• PC Mauritania 1 Pty. Ltd. (ã)
• PC Myanmar (Hong Kong) Limited	• PC Mauritania II B.Y. (ã)
• PAPL Services Pty Limited	• PETRONAS LNG Ltd.
• PAPL (Upstream II) Pty Ltd.	• MITCO Labuan Co. Limited
• PSE Kinsale Energy Limited	• Myanmar PETRONAS Trading Co. Ltd.
• PETRONAS Energy Trading Limited	• LEC Ireland Employment Ltd.
• PETRONAS Carigali Myanmar Inc.	• Nada Properties Company Ltd.
• PETRONAS Carigali Nile Ltd.	• Natuna 1 B.V.
• PC Carigali Mexico Oil and Gas Holding S.A. de C.V.	• PC Gabon Upstream S.A
• PETRONAS Carigali (Chad EP) Inc.	• PETRONAS LNG (UK) Limited
• PETRONAS Carigali Myanmar III Inc.	• Parsi International Ltd.
• PETRONAS Philippines Inc. (ã) (μ)	• PC Madura Ltd.
• PETRONAS Carigali (Urga) Ltd.	• PAPL (Downstream) Pty Ltd.
• Doba Pipeline Investment Inc.	• PC (Myanmar) Holdings Limited (μ)
• Argentinean Pipeline Holding Company S.A.(ã) (μ)	• PC Vietnam Ltd.
• PETRONAS Thailand Co. Ltd. (ã)	• PETRONAS Angola E&P Ltd.
• PETRONAS International Power Corporation BV (ã)	• PETRONAS Australia Pty. Ltd.
• Japan Malaysia LNG Co. Ltd.	• PETRONAS Carigali (Jabung) Ltd.
• PICL Siri Company Limited (ã)	• PETRONAS Carigali (Turkmenistan) Sdn. Bhd.
• PETRONAS LNG Sdn. Bhd.	• PETRONAS Carigali (Urga) Operating Company LLC (μ)
• PETRONAS Carigali Canada B.V.	• PC Kuala Kurun Ltd
• Humbly Grove Energy Services Ltd	• PETRONAS (E&P) Overseas Ventures Sdn. Bhd.
• PETRONAS Carigali International E&P B.V.	• PETRONAS Brasil E&P Limitada
• PETRONAS Carigali Iraq (Badra) Ltd.	• PC Sakakemang Ltd.
• PETRONAS Carigali Iraq (Majnoon) Ltd.	• Progress Energy Canada Ltd. (ã)
• PICL (Egypt) Corporation Ltd.	• PETRONAS Myanmar Limited
• PSE Ireland Limited	• PETRONAS China Energy Ltd.
• PSE Seven Head Limited	• PETRONAS Azerbaijan Upstream Sdn. Bhd.
• Humbly Grove Energy Ltd.	• PETRONAS South Caucasus S.a.r.l.
• Gas Storage Limited	• PETRONAS Azerbaijan Shah Deniz S.a.r.l.
• PNW LNG Marketing Sdn. Bhd.	• PETRONAS Energy (India) Private Limited
• PETRONAS E&P Argentina S.A.	• PETRONAS Carigali Iraq (Halfaya) Ltd.
• Sirri International Ltd.	• PETRONAS Iraq Garraf Ltd.
• Overseas Gas Storage Limited	• PETRONAS International Power Corporation (Mauritius) Ltd.(ã)
• PETRONAS Chad Marketing Inc.	• Petronas Carigali (Urga) Ltd.
• PETRONAS Carigali Chad Exploration & Production Inc.	• PICL Marketing Thailand Ltd.
• PETRONAS Carigali Iraq Holding B.V.	

APPENDIX I

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (CONTINUED)

PETRONAS Marketing International Sdn. Bhd. and its subsidiaries (continued):

• Azania Petroleum (Pty.) Ltd.	• Trek Petroleum (Pty.) Ltd.
• Citycat Properties (Pty.) Ltd.	• Engen Oil Lesotho (Pty.) Ltd.
• Chemico (Pty.) Ltd.	• Societe de Transport Mace SA
• Petroleum Investment Holding Ltd.	• South African Oil Refinery (Pty.) Ltd.
• Engen DRC SARL	• Engen Marketing Tanzania Ltd.
• Engen Gabon S.A.	• Pakenzyl (Pty.) Ltd.
• Engen Group Funding Trust	• Engen Company (Mauritius) Ltd.
• Engen Holdings (Ghana) Ltd.	• Engen Botswana Limited (ß)
• Engen International Holdings (Mauritius) Ltd.	• Engen Ghana Ltd.
• Engen Oil Zimbabwe (PVT) Ltd.	• Engen Holdings (Pty.) Ltd.
• Engen Lesotho (Pty.) Ltd.	• Engen Holdings Zimbabwe (PVT) Ltd.
• Engen Marketing Botswana (Pty.) Ltd.	• Engen Kenya Ltd.
• Engen (Nigeria) Ltd. (ã)	• Engen Limited
• Valais Investments (Pty.) Ltd.	• Engen Marketing Ltd.
• Engen Swaziland (Pty.) Ltd.	• SEP Burundi
• Engen Rwanda Ltd.	• Engen Namibia (Pty.) Ltd.
• Engen Petroleum Zimbabwe (PVT) Ltd.	• Engen Producing (Nigeria) Ltd. (ã)
• Engen Petroleum (Mozambique) Ltd.	• Engen Oil Tanking Ltd.
• Engen Petroleum Zambia Ltd.	• Engen Petroleum (Burundi) Ltd.
• Enpet Insurance Ltd.	• Engen Petroleum (DRC) Ltd.
• Engen Petroleum (Mauritius) Ltd.	• Renaissance Petroleum (Pty.) Ltd.
• Engen Properties (Pty.) Ltd.	• Engen Petroleum Tanzania Ltd.
• Imtrasel (Pty.) Ltd.	• Enpet Africa Insurance Ltd.
• Engen Reunion SA	• Kabuye Depot Holding Company Rwanda Ltd.
• Engen Ltd. (Malawi)	• Zenex Oil (Pty.) Ltd.

PETRONAS Assets Sdn. Bhd. and its subsidiaries:

• PETRONAS ICT Sdn. Bhd.	• Petrofibre Network (M) Sdn. Bhd.
• Virtus iP Sdn. Bhd.	

PETRONAS Hartabina Sdn. Bhd. and its subsidiary:

• Prince Court Medical Centre Sdn. Bhd.

PETRONAS Trading Corporation Sdn. Bhd.'s subsidiaries:

• PETCO Trading (UK) Limited (ã)	• PETCO Trading DMCC (ã)
• PT PETRONAS Niaga Indonesia	

APPENDIX I

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (CONTINUED)

PETRONAS Technical Services Sdn. Bhd.'s subsidiary:

• PTSSB DMCC

PETRONAS Chemicals Group Berhad's subsidiaries:

• Kertih Port Sdn. Bhd. (µ)	• PETRONAS Chemicals Fertiliser (Kedah) Sdn. Bhd. (µ)
• PCM (Thailand) Company Limited (µ)	• PETRONAS Chemicals Derivatives Sdn. Bhd. (µ)
• PETRONAS Chemicals Ammonia Sdn. Bhd. (µ)	• PETRONAS Chemicals Olefins Sdn. Bhd. (µ)
• PETRONAS Chemicals Glycols Sdn. Bhd. (µ)	• PCM Chemical India Private Limited
• Vinyl Chloride (Malaysia) Sdn. Bhd. (µ)	• PT PCM Kimia Indonesia
• PETRONAS Chemicals LDPE Sdn. Bhd. (µ)	

Subsidiaries held directly by the Company:

• Energas Insurance (L) Limited	• Institute of Technology PETRONAS Sdn. Bhd.
• PETRONAS NGV Sdn. Bhd.	• PETRONAS e-Learning Solutions Sdn. Bhd.
• PETRONAS Management Training Sdn. Bhd.	• PETRONAS Technical Training Sdn. Bhd.
• PETRONAS Capital Limited	

ã Audited by affiliates of KPMG.
@ The shares of this subsidiary are quoted on the Main Market of Bursa Malaysia Securities Berhad.
µ Consolidated based on management financial statements.
ß The shares of this subsidiary are quoted on the Botswana Stock Exchange.

GLOSSARY

INDUSTRY TERMS AS GENERALLY UNDERSTOOD

A

Additives
Chemicals added in small quantities to fuel or lubricants to control engine deposits and improve lubricating performance.

B

Barrel
A standard unit of measurement for oil production. One barrel contains 159 litres of oil.

Barrels of Oil Equivalent (boe)
A unit of measurement to quantify the amount of crude oil, condensates and natural gas. Natural gas volumes are converted to barrels on the basis of energy content.

Base Oil
An oil to which other oils or additives are added to produce a lubricant. This includes Group III base oil that has been subjected to the highest level of refining of the base oil groups, offering very high viscosity index to produce premium quality lubricants.

Basin
A low-lying area beneath the Earth's surface filled with thick layers of sediment, often a source of valuable hydrocarbons.

Brent Price
The benchmark crude oil price in Europe, as traded on the International Petroleum Exchange in London. Brent crude refers to a particular grade of crude oil, which is slightly heavier than WTI crude. See **WTI price**.

C

CO_2
Carbon dioxide, one of the primary greenhouse gases. Coal Bed Methane A form of natural gas extracted from coal beds, as opposed to the conventional natural gas found in reservoirs.

Condensates
Liquid hydrocarbons produced with natural gas, separated by cooling and other means.

D

Deadweight Tonne (dwt)
A ship's maximum carrying capacity in tonnes of cargo, including passengers, crew, stores, ballast and fuel.

Deepwater
In Malaysia offshore exploration, deepwater is demarcated at water depths exceeding 200 m. Unique methods are required to produce the oil and gas from the ocean bed at such depths. See **Floating Production Unit**.

D

Development
Drilling, construction and related activities following discovery that are necessary to begin production and transportation of crude oil and natural gas.

Dividend Payout Ratio
Dividend paid during the year as a percentage of previous year's net profit attributable to PETRONAS shareholders.

Downstream
All segments of a value chain that add value to the crude oil and natural gas produced, for example, oil refining, gas processing, gas liquefaction, petrochemical manufacturing, marketing of petroleum and petrochemical products, storage and transportation.

E

Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA)
Profit before taxation and non-controlling interests with the addition of amounts previously deducted for depreciation, amortisation and net impairment loss on property, plant and equipment and intangible assets and financing costs and the exclusion of interest income.

Energy Loss Management (ELM)
An initiative to improve energy efficiency and reduce Greenhouse Gas (GHG) emissions.

Enhanced Oil Recovery (EOR)
Any method(s) applied to productive reservoirs in order to increase production rates and to improve the overall recovery factor.

Exploration
The search for crude oil and/or natural gas by geological and topographical studies, geophysical and seismic surveys, and drilling of wells.

F

Feed-in-Tariff (FiT)
Malaysia's FiT system is a policy mechanism designed to accelerate investment in renewable energy technologies. It requires Distribution Licensees (DLs) to buy electricity produced from renewable resources from Feed-in Approval Holders (FIAHs) and sets the rate. The DLs will pay for renewable energy supplied to the electricity grid for a specific duration. The goal of FiT is to offer cost-based compensation to renewable energy producers, providing the price certainty and long-term contracts that help finance renewable energy investments.

F

Field
A geographical area overlying a hydrocarbon reservoir.

Floating Liquefied Natural Gas (FLNG)
Either a ship or barge that can sail or be towed to offshore gas fields, extract gas, freeze it to Liquefied Natural Gas (LNG) and offload the LNG to carriers for shipping.

Floating Production Unit (FPU)
Floating structures of various designs used in offshore production. These 'floaters' replace traditional fixed platforms and they are moored to the ocean bed. FPU is more commonly used in deepwater. See **Deepwater**.

Floating Production, Storage and Offloading (FPSO)
A converted or custom-built ship-like structure, with modular facilities to process oil and gas and for temporary storage of the oil prior to transfer to carriers/tankers.

Floating, Storage and Offloading (FSO)
A converted or custom-built ship-like structure for temporary storage of the oil prior to transfer to tankers. Floating Storage Unit (FSU) A converted or custom-built ship-like structure to receive and store LNG.

G

Gas Processing
An activity to turn streams of natural gas into commercial products, in addition to treating gas deposits.

Gas-to-Liquids (GTL)
A refinery process to convert natural gas or other gaseous hydrocarbons into longer chain hydrocarbons, such as gasoline or diesel fuel. It is used predominantly in the creation of high-quality transportation fuels.

Gearing Ratio
Total adjusted debt expressed as a percentage of adjusted debt and total equity. Total adjusted debt is the total debt including provision for decommissioning of assets.

Greenhouse Gases (GHG)
Gases that trap heat in the Earth's atmosphere, e.g. carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

H

Heavy Oil/Bitumen
Unlike conventional crude oil that can be pumped without being heated or diluted, heavy oil is oil that cannot be extracted in its natural state via a well and conventional production methods. This definition is also applicable to bitumen.

High Pressure High Temperature Well
Well with a surface shut-in pressure greater than 10,000 psi and a bottomhole temperature greater than 150ºC.

Heads of Agreement (HOA)
A non-binding document outlining the main issues relevant to a tentative partnership agreement. HOA represents the first step on the path to a full legally binding agreement or contract, and serves as a guideline for the roles and responsibilities of the parties involved in a potential partnership before any binding documents are drawn up.

I

Integrated Oil and Gas Company
A company that engages in all aspects of the oil and gas industry - exploring for and producing crude oil and natural gas (upstream); refining, marketing and transporting crude oil, natural gas and refined products (downstream); as well as manufacturing and distributing petrochemicals.

Ionic Liquids
Liquids that comprise entirely of positive and negatively charged ions. Ionic liquids are being explored for an array of applications, e.g. as environmentally friendly substitutes for volatile organic compounds in the oil and gas industry.

Improved Oil Recovery (IOR)
Improved Oil Recovery that is commonly used to describe any process, or combination of processes, that may be applied to economically increase the cumulative volume of oil that is ultimately recovered from the reservoir at an accelerated rate. IOR may include chemical, mechanical, physical, or procedural processes.

Improved Gas Recovery (IGR)
Refers to the recovery of gas by injection of fluids beyond the normal recovery through conventional methods. In recent times, carbon dioxide is used as a lubricant fluid to recover additional gas from the reservoir and thereby provides an avenue for storing the captured carbon dioxide.

J

Joint-Venture
A partnership between two or more companies to undertake a specific project and share the resulting profit and loss.

GLOSSARY

GLOSSARY

L

Liquefied Natural Gas (LNG)
Natural gas that is liquefied under extremely cold temperatures of about minus 260 degrees Fahrenheit to facilitate storage or transportation in specially designed vessels.

Liquefied Petroleum Gas (LPG)
Light gases, such as butane and propane, that can be maintained as liquids while under pressure.

Lost Time Injury (LTI)
This is defined as an occurrence that results in a fatality, permanent total disabilities, permanent partial disabilities or time lost from work including days off, off shift, weekends or public holidays.

Lost Time Injury Frequency (LTIF)
This refers to the total LTI cases per million exposure hours worked during the period.

Lubricant
A substance to reduce friction and wear among moving surfaces, resulting in improved efficiency. It contains about 90 per cent base oil and about 10 per cent additives.

M

Million Metric British Thermal Unit (mmBtu)
It measures the energy content in fuel and is used in the power, steam generation, heating and air conditioning industries.

Million Metric Standard Cubic Feet per Day (mmscfd)
It is a unit of measurement for natural gas. Liquefied Petroleum Gas (LPG), compressed natural gas and other gases that are extracted, processed or transported in high quantities.

Mobile Offshore Production Unit (MOPU)
It is a self-installing and re-usable production jack-ups.

Million Tonnes per Annum (mtpa)
It is a standard measurement of output for the year.

N

Natural Gas
A clean-burning, odourless, colourless, highly compressible mixture of hydrocarbons found occurring naturally in gaseous form. Natural gas is made up of methane but may also include ethane, propane and butane.

Naphtha
Usually an intermediate product between gasoline and benzene, naphtha is a colourless and volatile petroleum distillate used as a solvent or fuel.

O

Original Equipment Manufacturer (OEM)
Refers to a company that acquires a product or component, then reuses or incorporates it into a new product with its own brand name.

Olefins
A class of unsaturated open-chain hydrocarbons such as ethylene, having the general formula CnH2n; an alkene with only one carbon-carbon double bond.

Operational Performance Improvement (OPI)
A set of tools and methodologies that emphasise on instilling operational discipline, with the aim of improving operational excellence of PETRONAS' producing assets.

P

Peninsular Gas Utilisation System (PGU)
The PGU system was developed to spearhead the use of natural gas in Malaysia. The natural gas produced from offshore Terengganu is processed in six Gas Processing Plants in Kertih and are then fed into a 2,505 km pipeline system that delivers natural gas to the power, industrial, petrochemical and other sectors throughout Peninsular Malaysia and Singapore.

Petrochemicals
Organic and inorganic compounds and mixtures derived from petroleum, used principally to manufacture chemicals, plastics and resins, synthetic fibres, detergents, adhesives and synthetic motor oils.

Production Sharing Contract (PSC)
A contractual agreement between a company and a host government, whereby the company bears all exploration, development and production costs in return for an agreed-upon share of production.

PAT Margin
Profit after tax expressed as a percentage of total revenue.

R

Regasification Terminal (RGT)
RGT, also known as a receiving terminal, is usually a coastal plant that accepts deliveries of LNG and processes it back into gaseous form for injection into a pipeline system.

Refining
A purification process for natural resources which includes hydrocarbons, using distillation, cooling and/or compression.

R

Return on Average Capital Employed
Adjusted profit after taxation expressed as a percentage of average total equity and long-term debt during the year.

Return on Total Assets
Earnings before interest expense, interest income and tax expressed as a percentage of total assets.

Renewable Energy
Energy derived from natural sources that are replaceable.

Reserves
Hydrocarbons which are anticipated to be recovered from known accumulations of hydrocarbons.

Reservoir
Any porous and permeable rock (usually sandstone or limestone/chalk and occasionally a normally impermeable rock which has been heavily fractured), thus providing interconnecting spaces through which oil/gas can flow.

Resources
Resources are defined as the total estimated quantities of petroleum at a specific date to be contained in, or that have been produced from known accumulations of hydrocarbon.

Resource Replenishment Ratio
Figures reported are calculated based on a formula of (Difference of Resource Base of current year and previous year + Production Volume of previous year)/(Production Volume of previous year).

Risk Service Contract (RSC)
In the context of this report, RSC refers to a petroleum arrangement between PETRONAS and any other company for the appraisal, development and/or production of petroleum in a contract area on behalf of PETRONAS whereby the PA Contractors are remunerated based on achieved Key Performance Indicators consisting of the agreed Cost, Schedule and Production level.

S

Seismic Data
The collection of stratigraphic data obtained by creating shockwaves through the rock layers. Reflection of these waves from anomalies within the rock layers are electronically recorded at surface. These recordings are then analysed to produce a stratigraphic representation of the surveyed area, which helps to deduce the structure of the underlying rock layers.

Shale Gas
Natural gas found in shale rock derived from underground shale deposits that are broken up by hydraulic fracturing. The process is needed to produce gas in commercial quantities as shale has low matrix permeability.

T

Throughput
The amount of output produced by a system, e.g. a refinery, plant, or pipeline, in a given period of time.

Total Recordable Case (TRC)
The sum of injuries resulting in fatalities, permanent total disabilities, permanent partial disabilities, lost work day cases, restricted work cases and medical treatment cases, but excluding first aid cases.

Total Recordable Case Frequency (TRCF)
This refers to the number of total recordable cases per million exposure hours worked during the period.

U

Unconventional Oil and Gas
Oil and gas that cannot be produced or extracted using conventional methods.

Upstream
The segment of value chain pertaining to finding, developing and producing crude oil and natural gas. These include oil and gas exploration, development and production operations; also known as Exploration & Production (E&P).

W

WTI Price
Stands for West Texas Intermediate, the benchmark crude oil price in the US measured in USD per barrel, which refers to a type of high quality light crude oil.