Dear Minister Said, Distinguished guests,

It is a pleasure to be here today to present you the result of a year of work by the International Energy Agency, with the support of the Ministry of Energy and Mineral Resources. I should also note that this review could not have been possible without the support of the governments of France, the United Kingdom and Japan and the expert contributions from Netherlands, Sweden, Australia and the United States.

I would like to express our gratitude to the Ministry of Energy and Mineral Resources, as well as to all other stakeholders who have provided advice, guidance and analysis on Indonesia’s energy policies and support to prepare this review. This review is an important milestone in relations between the IEA and Indonesia.

Sometimes when I present such reviews, I am compelled to start with pointing out significant challenges that lie ahead. For no energy system is without its challenges. Yet today I am pleased – in fact I am delighted – to be able to start by offering congratulations.

In the past few months, Indonesia has already taken significant steps on one of our key recommendations, and made progress on a number of others. The most concrete example is the creation of a single office within the Investment Coordination Board to facilitate infrastructure investments in renewable energy, electricity and natural gas. This is a notable achievement.

And of course I must note the action that Indonesia is taking on reducing fossil fuel subsidies, beginning with gasoline. In addition there has been progress on streamlining of overlapping agencies, discussions on independent regulators, and action on energy sector governance. While these are all first steps, they are vitally important steps.
Of course, Indonesia has a great many successes of which it can be proud. A successful transition to democracy, high growth rates over the past 15 years, joining the G20, and devolution of decision-making and budgetary power to the local level. These are significant achievements.

But progress always comes at a price. Indonesia’s economic success, rising living standards, population growth and rapid urbanisation have increased energy consumption rapidly. This trend is likely to continue.

For now, Indonesia remains a net energy exporter. Globally it is the largest coal exporter and regionally the largest exporter of gas and liquid biofuels. Indeed, apart from oil and oil products the country is energy independent. The expansion of its coal, palm oil and biomass production, as well as a substantial increase in the exploitation of the archipelago’s renewable energy potential, have helped this process.

Nonetheless, amid dwindling oil and gas reserves and production, a lack of exploration, and ageing refineries, Indonesia is increasingly dependent on imported oil supplies – it is now the second-largest oil importer in the region. This has led to the country being faced with a considerable bill to finance subsidised end-consumer prices – a legacy of its times as a net oil exporter.

The continuation of Indonesia’s economic, political and social success story depends on its ability to deliver sustainable and sufficient energy supply to markets and ultimately to consumers. Meeting demand growth and ensuring the environmental sustainability of energy supplies must remain key pillars of its economic and investment policies and strategies. This will require further improvements to Indonesia’s institutional set-up, alongside stronger policy planning and implementation, more investment in critical energy infrastructure, and continued movement towards regulated energy markets and cost-reflective pricing.
There has been progress since our last Energy Policy Review. However Indonesia still lacks policy and institutional coherence. There is a need for clearer definition of responsibilities, improved co-ordination and greater market orientation.

Simply speaking, energy policy in Indonesia today suffers from the involvement of too many institutions and agencies with overlapping roles. In particular, the co-existence of ministries, councils and task forces, each charged with co-ordinating policy implementation in the same sector, complicates rather than facilitates policy formulation and implementation. There is no clear responsibility for policy formulation and implementation.

What this means in practice is the lack of a single point of responsibility for the delivery of policy goals. As such, no institution can be held accountable when goals are not reached in time.

This has led to policy goals that are sometimes too ambitious, reflecting political priorities rather than achievable targets. The goal of reaching a 23% renewable energy share in the energy mix by 2025 is a case in point.

One means to address this problem could be to update the 2007 Energy Law to delineate clearly the responsibilities of central-level institutions, and ensure that district-level regulations are required to conform to national framework legislation on energy policies and laws.

Similarly, despite the progress Indonesia has made in its transition from a centrally planned economy towards a market-based economy, the legal and regulatory framework needs further improvement if the country is to attract the investment necessary to continue to develop and sustain its energy sector.

Private investment relies on clear and transparent rules and a reasonable degree of confidence about the future. Indonesia urgently needs to clarify the rules, regulations and tax regimes for investors engaged in natural resource extraction as well as in electricity generation.

The Anti-Corruption Commission could serve as an organisational model for an independent institution that remains part of the state. The present integration of the sector regulators into the Ministry of Energy, or into the state-owned companies, has created conflicts of interest vis-à-vis the setting and enforcement of rules.
Without such clarity, Indonesia will continue to face challenges in delivering suitable infrastructure. This need is at the heart of Indonesia’s challenge to reach its ambitious energy mix objectives, increase energy production and ensure demand growth can be met.

The planned increase in renewable energy production relies on large investments in the transmission grid alongside investment in geothermal, solar and wind generating capacity. Similarly, the establishment of a domestic gas market requires additional gas transport infrastructure in order to be able to re-direct gas from the export market. The domestic coal sector stands to benefit from the implementation of long-standing plans to build coal transport railways, and the electricity sector needs additional transmission lines.

Indonesia’s policies and plans identify these infrastructure projects but their development is often delayed and the funding sources unclear. And without this new infrastructure, Indonesia risks electricity blackouts in the coming years and a higher energy bill as a result of greater reliance on imports.

Overall, Indonesia needs to strengthen its support for investment in critical energy infrastructure and significantly enhance co-ordination among all state actors. The Investment Board should be strengthened and a one-stop-shop for co-ordinating renewable energy, electricity and natural gas infrastructure investment established within it. This will guide investors through the process of obtaining the necessary permits for construction of energy infrastructure on each of the district, regional and central levels.

Energy subsidies are holding back Indonesia’s transition to a sustainable energy system in a number of ways. Subsidies take much-needed resources from the state budget that could be used to fund critical energy infrastructure and other public spending needs. Subsidies also discourage the conservation of
energy and the switch to cleaner alternatives, thereby impeding the achievement of Indonesia’s National Energy Policy goals and further increasing its dependence on energy imports.

Clearly, any phase-out of subsidies will have short-term negative effects in the form of increases in the cost of living and inflationary pressures. The government needs to ensure the availability of compensatory measures to support the poorest households.

Given past resistance to subsidy reform, the government needs to devise a clear political strategy regarding subsidy phase-out, communicate explicitly the steps it intends to take, provide transparency on the usage of saved expenditure, and compensate people living in poverty or at risk of falling into poverty again.

All of these obstacles stand in the way of a critical goal for Indonesia, the establishment of a domestic gas market.

If the country wishes to establish gas as a bridging fuel towards a more sustainable energy sector, it will need to take significant steps. This will include addressing the lack of long-term policy planning, extensive lead times for investment and construction, and the lack of coordination between market sectors.

It will also mean the evolution of the transmission network. Oversight and co-ordination of the gas transport sector need to be placed with an independent, well-resourced regulator. It should be tasked with overseeing the long-term development of the sector, as well as with the implementation of a transparent transmission access and pricing regime.

And of course the government needs to reform the mandatory allocation of gas supply and regulated prices. In their place, it should gradually introduce a transparent and predictable natural pricing regime and bring domestic wholesale gas prices closer to export levels.

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But of course, oil remains Indonesia’s primary source of energy, accounting for about 36% of the country’s total primary energy supply. Indeed as you know, the country is a mature player in the global oil industry, with a long history of oil exploration and production. However, there have been considerable changes in recent decades.

The country’s reserves and production have declined continuously since its production peak in the mid-1990s, leading to the country becoming a net oil importer in 2004. Meanwhile, Indonesia’s oil demand has increased significantly in recent years, bolstered by strong national economic growth.

Indonesia is now faced with increasing dependency on imported crude oil and oil products. This places enormous pressure on its government budget, as the government subsidises a number of oil products at prices lower than international levels.

Despite aims to reduce the share of oil in its future energy mix by encouraging the use of other fuels, especially in the transport and power sectors, oil will remain important for national energy supply as well as government revenue. There are multiple challenges to be resolved in the oil sector along the entire value chain, to ensure optimal, sustainable development and utilisation of the country’s oil resources.

As for coal, the policies and regulatory framework governing the mining sector have undergone considerable change since 1998, accompanied by rapidly rising export volumes. Indonesia is one of the world’s leading coal producers, and since 2012 has been the world’s leading exporter. This is largely due to Indonesia’s democratisation and the decentralisation of government, bringing greater regional autonomy to the coal mining sector. This has led to the rapid expansion of the coal industry and a surge in exports.

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At the same time, local communities have begun demanding greater benefits from the mining industry, increasingly calling for companies to be more transparent and promote better social and environmental outcomes. Recent governments have therefore been challenged to balance the short-term maximisation of benefits, in terms of mining revenue, with the medium- to long-term development of a sustainable industry.

However, conflicts between companies and community have increased in frequency and magnitude. Indonesian civil society organisations are playing an important advocacy role for local communities with the coal industry, demanding that mining companies recognise “local rights”. This has sometimes led to conflict between companies and civil society. It is essential that companies demonstrate better environmental and social responsibility to ensure communities in the host areas benefit from mining sector activities.

Indonesia was the world’s sixth-largest emitter of carbon dioxide in 2012, accounting for 4.5% of global emissions. Energy-related emissions make up 25% of that total and are rising fast. They are projected to increase further, in line with Indonesia’s high economic growth rate.

So like many countries, Indonesia today faces a dilemma – how to balance the development of its economy, the extraction of natural resources, increasing energy demand with rising GHG emissions, worsening air pollution, and the loss of the significant natural capital and ecosystem services provided by its forests and their underlying biodiversity.

At the same time, as a tropical archipelago with an extensive coastline and significant dependence on agriculture and natural resources, Indonesia is highly vulnerable to the effects of climate change. The Asian Development Bank estimated that the economy-wide cost of climate change in Indonesia could reach between 2.5% and 7% of GDP by 2100. This raises questions about the resilience of Indonesia’s energy infrastructure to more frequent and more intense weather related disasters such as floods, storms, and sea-level rise.

Finding the appropriate balance will be critical to ensuring a sustainable future for the country.
Indonesia’s fuel resources hold significant potential for electricity generation. The country benefits from considerable domestic coal, geothermal and hydropower availability, but faces significant challenges in realising this potential, given its vast size and almost countless number of islands. As such, the country is encountering ongoing shortages in electricity supply, and is forecast to experience significant growth in power demand.

Since the last Energy Policy Review of Indonesia in 2008, the country has steadily increased its total installed capacity from around 29 500 megawatts in 2007 to approximately 46 400 in 2013. The expansion in installed capacity has helped contribute to an improved national electrification rate, which increased from around 65% in 2008 to just above 80% in 2013.

Rural electrification, however, continues to face challenges, as most off-grid areas are in the outer ring of islands and located far from fuel sources. Indonesia’s fuel mix for power generation has also seen a significant shift away from oil in recent years towards the utilisation of domestic coal resources, as the struggle to develop hydropower and geothermal power persists.

Renewable energy plays an important role in Indonesia’s national energy policies, particularly as maximising renewable resources helps strengthen the security of energy supply. The government aims to speed up the exploitation of renewable energy and to increase its share of primary energy to 23% by 2025. Today, however, the country is exploiting only around 5% of its renewable energy capacity.

This is unfortunate, because Indonesia’s potential for renewable energy is high. The country holds around 28 gigawatts of the world’s geothermal reserves, about 32 gigawatts of potential biomass reserves and 75 gigawatts of hydro energy resources. It also has considerable solar energy potential.

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To take advantage of this potential, the government has implemented feed-in tariffs and tax incentives to encourage investment, including subsidies for transport biofuels, and the Energy Self Sufficient Village programme. As the cost of transporting fossil fuels to far-off islands is high, renewable energy could significantly enhance the provision of basic energy needs on isolated islands and rural off-grid areas.

Of course the cheapest power is the power not used at all.

Indonesia is the largest consumer of energy in Southeast Asia, accounting for more than 36% of the region’s energy demand. Energy consumption is forecast to increase by 7% per year, and growth in demand for energy can be seen in all sectors.

In response to this growing demand, and to facilitate the implementation of energy efficiency plans and programmes, Indonesia established the Directorate-General of New Renewable Energy and Energy Conservation (DGNREEEC) within the Ministry of Energy and Mineral Resources (MEMR) in 2010. Significant potential exists for Indonesia’s energy efficiency market as the government increases support for energy efficiency policies in the residential, industrial and transport sectors.

Indonesia’s transport sector is defined by the nature of its geography. The country is urbanising and its population is increasing, as are sales of motor vehicles. These trends are converging to cause crippling congestion in the cities, especially here in Jakarta. GDP per capita is expected to rise by approximately 60% by 2020, this will inevitably lead to more families owning cars. Moreover, fuel prices are heavily subsidised, a policy that hurts Indonesia’s government receipts and creates disincentives for efficiency.

An imbalance between vehicle growth and infrastructure, combined with a lack of spending on efficient mass transit, means that one-third of Indonesian fuel use is wasted in stationary traffic. Average speeds
continue to decrease unabated across all major Indonesian cities. And bus lanes suffer from a lack of enforcement, undermining their potential to become high-capacity bus rapid transit systems.

Of course the government is aware of these challenges and has responded by prioritising four transport policies:

- First, to increase usage of compressed natural gas in vehicles, with research and development focused on mass production of converter kits and development of CNG infrastructure.
- Second, the promotion of Affordable Energy-Saving Cars – smaller, typically domestically produced cars, that bring with them the downside of increasing congestion, as they can enter previously un-motorised areas.
- Third, the improvement of the ability of gasoline and diesel engines to handle higher biofuel content.
- And fourth, the development of public transport and traffic management.

Ladies and gentlemen,

You will forgive me for having spoken bluntly about the challenges facing the country, for great progress never comes without new challenges. And so with that in mind, I will leave you with four specific recommendations – the full set of recommendations can be found in the publication, which I encourage you all to read.

- First, while Indonesia has started implementing our basic recommendation to phase out energy subsidies, we urge the government to continue on this path, while fully rolling out its new social assistance program for Indonesia’s population.
- Second, step up co-ordination in energy policy making and regulation; ensure consistency between modelling scenarios, targets, and implementation; and focus on the quality of legislative and regulatory processes.
- Third, improve the energy investment framework by speeding up decision making and opening the energy sectors to market-based mechanisms for prices and fuel choices.
- Fourth and finally, develop and implement an integrated, long-term development plan for natural gas infrastructure, reform wholesale natural gas pricing and allocation mechanisms, and establish an independent downstream regulator for natural gas and electricity, with the long-term goal of a national wholesale market and more efficient use of gas.

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With these key recommendations in mind, I again offer my congratulations for steps already underway. There is much for Indonesia to be proud of, just as there is much that remains to be accomplished, and of course there is much to look forward to.

Thank you for your attention.