1. EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

EXECUTIVE SUMMARY

Indonesia’s economic and political development since the Asian financial crisis and its transition to democracy are a success story. The country has achieved consistently high growth rates over the last 15 years, and it has joined the G20, stabilised its young democracy, and devolved decision making and budgetary power to the local level.

Indonesia remains a net energy exporter. It is the largest coal exporter globally and the largest exporter of gas and liquid biofuels regionally. 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 and has become the second-largest oil importer in the region. The country is faced with a considerable bill to finance subsidised end-consumer prices, which are a legacy of its times as a net oil exporter.

Indonesia’s economic success, rising living standards, population growth and rapid urbanisation have increased energy consumption rapidly. IEA projections predict this trend to continue. Hence, energy security and meeting expected energy demand growth are the key challenges for Indonesia’s energy policy.

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.

SUBSTANTIAL PROGRESS

Indonesia has already started this process and has been successful in implementing important changes. Its energy policy framework has been transformed considerably, and the government has implemented many of the recommendations from the previous and first IEA Energy Policy Review of Indonesia, which was published in 2008.

In particular, the government of Indonesia enacted a number of important energy policies, such as the 2007 Law on Energy, the 2009 Law on Electricity, the 2009 Law on Mineral and Coal Mining, and the 2014 National Energy Policy.
Indonesia has also enhanced its institutional environment by establishing a Policy and Planning Unit within the National Energy Council (NEC) and a Directorate-General of New, Renewable Energy and Energy Conservation (DGNREEC) within the Ministry of Energy and Mineral Resources (MEMR).

The new Policy and Planning Unit has allowed the NEC to strengthen its capacity to model and plan energy policy in co-ordination with all involved institutions. This has helped focus Indonesia’s national energy planning, including the introduction of ambitious targets for renewable energy.

From this basis, DGNREEC, in co-operation with the Ministry of Finance, succeeded in establishing incentives for renewable energy development which helped attract private investors and open up the electricity market. The feed-in tariffs provide an important tool for realising Indonesia’s renewable energy potential. The conclusion of a Memorandum of Understanding between MEMR and the Ministry of Forestry has facilitated geothermal exploration in forest areas, which is crucial to ensure that Indonesia begins using its massive geothermal potential.

MEMR has improved the quality of its data for oil and gas block tenders, as well as the transparency of the tendering process. This has been a step in the right direction and will serve to increase interest in oil and gas exploration in Indonesia.

The government has also built on its climate change commitments, introducing not only an updated carbon inventory, but also submitting its Second National Communication to the United Nations in 2010. On energy efficiency and conservation, Indonesia has established the necessary planning and policy documents and has started developing energy efficiency standards for buildings, appliances and industry.

Concerning energy subsidies, Indonesia has continued to reform the end-user tariff structure in the electricity sector and introduced staged price increases in 2013 and 2014. The government also decreased subsidies for gasoline and diesel in 2008, and in 2013 and in 2014 increased end-consumer prices substantially as the cost of the subsidy keeps rising.

**IMPROVE AND STREAMLINE INSTITUTIONS AND POLICIES**

Despite progress in some sectors since the 2008 *Energy Policy Review of Indonesia*, the country’s policy and institutional environment continues to lack coherence and could benefit from a clearer definition of responsibilities, improved co-ordination and greater market orientation. Indonesia’s energy policy 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. No clear responsibility for policy formulation and implementation exists. This has led to an environment where no single point of responsibility exists for the delivery of policy goals and no institution can be held accountable when goals are not reached in time.

This has led to policy goals that are sometimes too ambitious and which reflect political priorities rather than achievable targets. While energy policies should be ambitious, they must be founded on reliable data, sophisticated economic modelling, and past experience of the implementation capacity of the responsible actors. The goal of reaching a 23% renewable energy share in the energy mix by 2025 is a case in point.
Different national plans and policies promote energy development, for example, the National Energy Policy, the Masterplan for Acceleration and Expansion of Indonesia’s Economic Development, and others. Often these policies are not updated in parallel, with the result that some seem to promote different goals. This inconsistency is reflected in sectoral policy plans that do not always use the latest scenarios or end-goals, a consequence of general confusion about official or higher-level goals.

This cannot only be attributed to the multiplicity of institutional actors, the high number of ministries (34), and the numerous sectoral councils, task forces and co-ordination bodies, but also to the ongoing decentralisation of institutions. Policies and regulations at central and local level must be consistent: Indonesia needs to ensure national standardisation of district regulations and legislation.

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.

**ENHANCE THE LEGAL AND REGULATORY ENVIRONMENT**

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.

Regulations are introduced that contrast with existing policies and/or are in direct conflict with existing laws. Diverging regulations at central and local levels for extractive industries are the most visible but by no means the only cases. This is a serious challenge for private investors, for it affects certainty regarding interpretation of rules and regulations.

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 the natural resource extraction sector as well as in the electricity generation sector.

A key element of this is the establishment of independent institutions – or at least two ring-fenced units within the government that are not part of or directly answerable to any ministry – for the regulation of the upstream oil and gas sectors, the downstream oil and gas sectors, and the electricity sector.

The Anti-Corruption Commission (KPK) 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.

**IMPROVE AND EXTEND INFRASTRUCTURE**

The delivery of suitable infrastructure 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 needs 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. Without new infrastructure, Indonesia risks electricity black-outs in the coming years and a higher energy bill as a result of greater reliance on imports.

Another key concern relating to investment in infrastructure is land acquisition. Investment projects, whether funded by the public or private sector, are often delayed because of a lack of clarity on land ownership and poor procedures for land acquisition for priority projects. Indonesia needs to develop – in consultation with all stakeholders, including landowners – a comprehensive land law that replaces all of the overlaps, contradictions and ambiguities in existing laws, regulations and procedures. Each sector’s laws and regulations should then be aligned with this umbrella legislation. Meanwhile, Indonesia needs to provide government support to investors to ensure that critical energy infrastructure can be built via a fast-track mechanism for land acquisition that respects the rights of local communities and landowners.

Overall, Indonesia needs to strengthen its support for investment in critical energy infrastructure and significantly enhance co-ordination between 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.

PHASE OUT SUBSIDIES AND MOVE TO MARKET PRICING

Energy subsidies are holding back Indonesia’s transition to a sustainable energy system in a number of ways. First, subsidies take much-needed resources from the state budget that could be used to fund critical energy infrastructure (see above) and health, education and other programmes.

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.

The introduction of cost-reflective market pricing for all energy products is a crucial step if Indonesia is to meet its energy goals, including reducing the share of oil in the energy mix and increasing renewable energy production, as well as attracting investment in critical energy infrastructure.

Rather than responding only to short-term budgetary and debt pressures, the government should aim to introduce fluctuating prices and implement a step-by-step phase-out of subsidies, rigorously sticking to its timetable.

Clearly, any phase-out 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.

ENSURE THE SUSTAINABILITY OF THE ENERGY SECTOR

It is clear that the phase-out of energy subsidies will increase the sustainability of the energy sector, encourage energy conservation and spur more efficient use of transport. It will also free up funding to support the promotion and connection of renewable energy.

Furthermore, increasing the sustainability of the energy sector is crucial to ensure that Indonesia reaches its greenhouse gas (GHG) emissions reduction target. This will require the adoption of new and more efficient technologies in the transport and electricity generation sectors. Clean coal technologies are critical in this respect, given the projected increase in coal-fired power generation in Indonesia.

Environmental protection also needs to be enhanced, especially at local level, if the destruction of Indonesia’s forests and biodiversity is to be halted. The application and enforcement of existing regulations is of vital importance. Unless the extraction of Indonesia’s natural resources are done in a sustainable manner, Indonesia risks losing its substantial natural capital in return for short-term gains.

ESTABLISHING A DOMESTIC GAS MARKET

Indonesia’s intention to establish a domestic gas market, an important element of this review, is facing all of the obstacles described above. It will be a key test of the government’s ability to overcome the apparent policy and regulatory challenges and to establish gas as a bridging fuel towards a more sustainable energy sector.

First, the government needs to address the lack of integrated long-term policy planning; the extensive lead times for infrastructure investments, construction and commission; and the lack of co-ordination between the market sectors – including the power sector – as well as the physical constraints and bottlenecks.

Second, the transmission network needs to evolve to facilitate the emergence of a transparent domestic wholesale gas market. 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.

Finally, the government needs to reform the mandatory allocation of gas supply and regulated (subsidised) 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.

KEY RECOMMENDATIONS

The government of Indonesia should:

- Resolutely decrease fossil fuel subsidies by implementing its existing phase-out timetable and starting a large-scale and long-term communication campaign on the
necessity, timeline and the reallocation of state expenditures, including compensatory measures for the poor, and social and infrastructure development investments that benefit the entire population.

- 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 by clarifying competencies, enhancing stakeholder consultations, defining deliverables and assigning accountability at national and sub-national levels.

- Improve the energy investment framework by speeding up decision making and opening the energy sectors to market-based mechanisms for prices and fuel choices.

- Establish a single office within the Investment Coordination Board to facilitate infrastructure investments in renewable energy, electricity and natural gas, which would advise and support investors in obtaining the necessary permits and licences from central and local institutions.

- 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.