

# Indonesia's Energy Policy Briefing

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July  
2020

As part of its work on energy policy and sustainable development in Indonesia, the Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) publishes a regular briefing on issues related to energy subsidies. For more information, contact Lucky Lontoh at [lucky.lontoh@iisd.org](mailto:lucky.lontoh@iisd.org) and Lourdes Sanchez at [lsanchez@iisd.org](mailto:lsanchez@iisd.org).

This policy brief presents and discusses the most recent energy policy developments in Indonesia. It also considers measures designed to mitigate the economic and social impacts of the COVID-19 pandemic crisis implemented up to May 2020. The brief starts with a macroeconomic view of Indonesia's performance since 2015, focusing on the evolution of energy subsidies. The following sections summarize the most recent and relevant policies in the energy field, providing context and the implications for the months to come.

## Highlights

- Current estimates predict that the COVID-19 crisis will significantly impact Indonesia's economic performance and the energy sector in the country.
- **Transport fuel subsidies** in Indonesia have followed an increasing trend since the beginning of the electoral period in 2018. However, by May 2020, gasoline and diesel prices had not changed, despite different requests to the government to reflect the international price decrease in local prices. Reasons for maintaining the price of transport fuels include an update of the fuel pricing formula, as well as other factors affecting PT Pertamina, such as the lower demand, an unfavourable exchange rate, and the obligation to buy more expensive local fuel.
- **Liquefied petroleum gas (LPG) subsidies** have increased significantly in the past few years, even if a small decrease is expected in 2020 due to the slump in international oil prices. Reform plans point at targeting mechanisms but have failed to take off due to other policy priorities and the limited ability to perform a trial run, which concluded in mid-2019.
- **The coal sector** has been severely affected by the COVID-19 crisis, with exports decreasing by more than 40% in the first two months of 2020 compared to last year. The Ministry of Energy and Mineral Resources (MEMR) issued regulation



No. 7/2020 in March 2020, facilitating administrative and business procedures for the mining sector, including coal. Non-governmental organizations questioned the role of the new regulation in Indonesia's commitment to reducing carbon emissions by 2030 to 29%. Furthermore, the Government of Indonesia added coal mining to the business sectors that are eligible to receive fiscal incentives to reduce the impact of COVID-19.

- In **the power industry**, the government is reviewing plans to retire around 13 GW of fossil fuel power capacity and replace it with renewables to meet the target of 23% new and renewable energy in the national energy mix. Instead, recent developments indicate that a part of diesel power plants could be converted to gas or coal gasification, and other new regulations support coal power generation in Indonesia. The decreasing electricity demand due to the COVID-19 crisis has stressed PT PLN financials, which, as a consequence, is renegotiating independent power producer contracts. The pandemic also puts the 35 GW plan at risk.
- A COVID-19-recovery measure makes **PT PLN's electricity supply free** for some months for certain categories of customers, including the residential sector, small business customers, and small industries.
- Furthermore, the Minister of State of Enterprises recently stated that **PT PLN should restructure its business plan** and form a healthy business ecosystem with the private sector and other state-owned enterprises, with PT PLN focusing on power distribution.
- New regulations affecting **renewable energy** sources have added some optimism to the sector. The new MEMR Regulation No 4/2020 is expected to overcome several regulatory obstacles related to renewable energy power plants and make investment more attractive. The solar industry has been included in the post-COVID-19 green recovery plans through tax incentives and other stimulus measures. However, the main hurdle for renewables, the buy-in tariffs, remains unchanged.

## 1.0 Macroeconomic Overview: 2015–2020

The first term of the Jokowi Widodo presidency (2015–2019) was marked by lower but stable gross domestic product (GDP) growth and aggressive measures to improve the account balance (see Table 1). The 5% GDP growth average in the last 5 years has required the adjustment of Indonesia's power sector planning, which was made based on a higher GDP growth assumption<sup>1</sup> (see Section 2 for more details).

Budget deficit balance is one of the key indicators that regulates Indonesian economic policy, and its performance has improved, from -2.59% in 2015 to -1.82% in 2018. However, the COVID-19 crisis has severely impacted these achievements. Minister of Finance Sri Mulyani Indrawati conveyed that the State Budget (known as *Anggaran Pendapatan dan Belanja*

<sup>1</sup> Indonesia's power sector planning remains to develop according to the 35,000 MW program. However, the plan has recently been broken down into two phases. The short term is in 2029, and the ultimate deadline is pushed back to 2049. The initial deadline was 2019 for a total of 35,000 MW of new capacity.



Negara [APBN]) deficit in 2020 will widen to a level of -6.34%, equivalent to IDR 1,039.2 trillion of GDP. The most recent deficit figure will be included in the revision of Presidential Regulation No. 54 of 2020, where, initially, the government budget deficit was set at -5.07% of GDP, equivalent to IDR 852.9 trillion (Kusuma, 2020) (see Table 1).

**Table 1. Indonesia's macroeconomic indicators**

	2015	2016	2017	2018	APBN 2019	Outlook 2019*	APBN 2020 <sup>2</sup>	COVID-19 Adjustment
GDP growth (%)	4.9	5.0	5.1	5.2	5.3	5.2	5.3	-0.4 /2.3
Inflation (%)	6.4	3.5	3.6	3.1	3.5	3.1	3.1	3.9–5.1
Exchange rate (IDR/USD)	13,392	13,300	13,384	14,247	15,000	14,250	14,400	17,500–20,000
Indonesia Crude Price (USD/barrel)	49.2	40.2	51.2	67.5	70.0	63.0	63.0	< 30
Oil production (mbopd)	785.0	829.0	804.0	778.0	775.0	754.0	755.0	n/a
Gas production (mboepd)	1,203.0	1,180.0	1,142.0	1,145.0	1,250.0	1,072.0	1,191.0	n/a
Fuel subsidy (billion IDR) :								n/a
Fuel subsidy (billion IDR)	34,886	18,748	8,297	38,871	31,044	32,300	19,900	n/a
LPG subsidy (billion IDR)	25,872	24,939	38,750	58,144	69,605	58,000	50,600	n/a
Electricity subsidy (billion IDR)	58,332	63,098	50,595	56,508	59,300	52,300	54,800	n/a
Budget balance (surplus-deficit/GDP) (%)	-2.6	-2.5	-2.5	-1.8	-1.8	-1.9	-1.8	-6.34
GDP (trillion IDR)	11,541	12,407	13,589	14,837	16,087	15,834	17,465	n/a

Source: Badan Pusat Statistik, 2020; Government of Indonesia, 2018; Utama, 2020.

Note: mbopd: million barrel of oil per day; mboepd: million barrel of oil equivalent per day.

\* Outlook is a projection made by the Indonesian government about the final position of a fiscal year as part of the State Budget (APBN).

<sup>2</sup> APBN 2020 was presented in October 2019, well before the COVID-19 crisis.

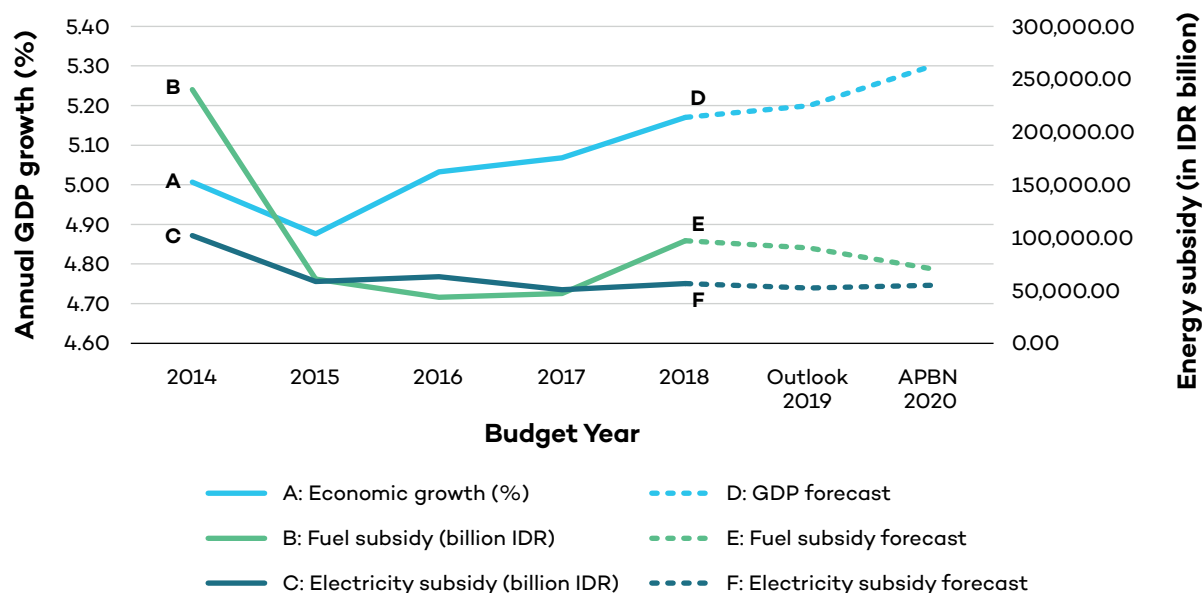


## 1.1 The Evolution of Energy Subsidies

In terms of energy subsidies, direct fiscal support declined drastically in the early years of Jokowi Widodo's presidency, but that was followed by a rising trend at the end of his first term. Electricity and liquefied petroleum gas (LPG) subsidies showed an upward trend at the end of the term, while the reintroduction of subsidized fuel into the Java–Bali area in 2018 (Presiden Republik Indonesia, 2018) and the fuel price freeze during the election period in 2019 have returned the total subsidy back to 2015 levels. The rise of LPG subsidies in the last 3 years has been triggered by the upward trend of international gas prices.

Energy subsidy allocation for fiscal year (FY) 2020 was lower than 2019 outlook figures (Sembiring, 2019) (see Table 1 and Figure 1), anticipating a lower international oil price, an intensified campaign to use a domestic palm oil blend as a transport fuel, and a policy that is set to improve the accuracy of subsidized LPG distribution. The biggest portion of government fiscal support to state-owned enterprises (SOEs) is allocated for PT PLN, the country's state-owned electricity company, reflecting the government's development focus on pursuing the agenda to add 35,000 MW by 2029 into the country's installed power capacity. This capital injection from the state coffer was estimated at around IDR 6.5 trillion in 2019 and allocates an additional IDR 5 trillion for FY 2020 (Kementerian Keuangan Republik Indonesia, 2020). However, there is a risk in this allocation, as the current situation anticipates a decline in electricity demand that could result in additional payments for capacity or stranded assets (more details are included in Section 2).

**Figure 1.** Indonesia's economic growth and energy subsidy

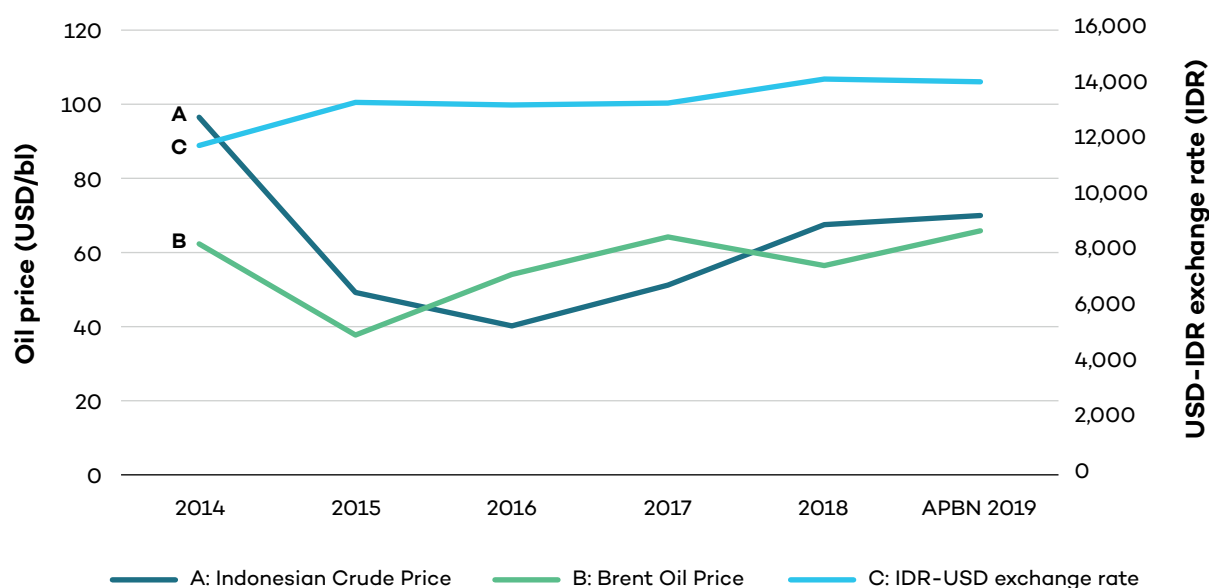


Source: Government of Indonesia, 2018; Kementerian Keuangan Republik Indonesia, 2020.



The oil price and exchange rate impacted the Indonesian economy in two ways: by affecting the actual value of energy subsidies (as both the import prices for oil and LPG and contracts with independent power producers [IPPs] are negotiated in USD) and the revenue of the Indonesian oil SOE, PT Pertamina, which exports these commodities to international markets. In most cases, the rise in the oil price and the weakening rupiah (see Figure 2) have resulted in pressure on fiscal balance since Indonesia is importing most of its domestic energy needs.

**Figure 2.** Oil price and exchange rate



Source: Indexmundi, 2020a; Government of Indonesia, 2018; Kementerian Keuangan Republik Indonesia, 2020; OFX.com, 2020.

## 1.2 COVID-19 and Energy Prospects

The pandemic is taking a toll on sales and revenue in all types of energy commodities in Indonesia. Fuel sales are expected to drop due to the travel restrictions and physical distancing policies, while the power sector will take a hit from an overall economic slowdown during the crisis. The crisis is also impacting the upstream and investment sides of the energy sector, affecting operations and threatening the future of numerous energy projects in Indonesia.

The combined effect of COVID-19 and the energy price slump has forced PT Pertamina to adjust its business outlook for 2020. The company's revenues are anticipated to shrink by an estimated 38–45% (Ramli, 2020b). The average fuel sales nationwide have dropped by 35% since the introduction of social distancing in March 2020 compared to a two-month average. Sales fell by up to 60%, especially in big cities like Jakarta and Bandung (R. J. Akbar, 2020). The crisis is also expected to have major impacts on PT PLN, Indonesia's electricity SOE, aggravating its already weak financials.

Aviation fuel has taken the hardest hit, with a 45% drop in sales, followed by a 17% drop for gasoline and 8% for diesel (Pertamina, 2020b); meanwhile, subsidized LPG sales slightly increased by 0.7% in March 2020 (Ramli, 2020a). These figures provide a snapshot of the



effect of the COVID-19 pandemic on Indonesia's economy. The increase in LPG sales is dampened since the period coincides with the Islamic holy month of Ramadan, when the consumption of food and cooking commodities is customarily peaking (Utami, 2020b).

PT Pertamina has also reduced the working capacity of its refineries due to slower demand and plans to shut down one of its oldest refineries in Balikpapan in May 2020 (Utami, 2020a). Fuel imports have dropped by more than half, from roughly 333,333 barrels per day to 100,000–150,000 barrels per day (Reuters, 2020).

The energy subsidy reform in 2015 saved around USD 15 billion per year of the public budget. A new reform of energy subsidies, which increased significantly in 2019, is not expected to have an important impact on GDP growth, because the leverage from fiscal space that can be relieved through energy subsidy reduction is smaller. Facing the COVID-19 crisis will require structural reforms that change spending priorities in a broader sense and that reduce Indonesia's heavy reliance on fossil fuel.



## 2.0 Energy Policy Overview

### 2.1 Transport Fuels

Traditionally, transport fuel subsidies comprised gasoline, diesel, and kerosene. Since 2015, gasoline subsidies were reformed, with only subsidies to diesel and kerosene remaining, while the price gap on gasoline was covered by PT Pertamina. Table 2 presents the price by April 21, 2020; the subsidized fuel prices (marked by \*) below are the prices that have been applied since April 1, 2016 (Jakarta Post, 2017).

**Table 2. Indonesia fuel price (as of April 21, 2020)**

Type of fuel/brand	Price (IDR/litre)
Premium (gasoline, RON 88)*	6,450
Pertalite (gasoline, RON 90)	7,650
Pertamax (gasoline, RON 92)	9,000
Pertamax Turbo (gasoline, RON 98)	9,850
BioSolar* (diesel, CN 48)	5,150
Dexlite (diesel, CN 51)	9,500
Pertamina Dex (diesel, CN 53)	10,200
Subsidized kerosene**	2,500
Non-subsidized kerosene**	10,200 – 11,770
Shell Regular (RON 90)	9,075
Shell Super (RON 92)	9,125
Shell V-Power (RON 95)	9,650
Shell Diesel	9,850
Total Performance 90	9,075
Total Performance 92	9,125
Total Performance 95	9,650
Total Performance Diesel	10,150

Note: \* indicates subsidized fuel type \*\* Kerosene price is as of February 2020

Source: Pertamina, 2020a; Purnomo, 2020.

Indonesian subsidized fuels are sold at a uniform price across the Indonesian archipelago. To evaluate the changes in the value of the subsidies since the 2015 reform, we compare official subsidy values in FY 2015 and the latest confirmed figure, FY 2018. The diesel subsidy was



IDR 35.50 trillion in 2018, up from IDR 20.48 trillion in 2015. The kerosene subsidy was IDR 3.37 trillion in 2018, up from IDR 3.05 trillion in 2015. This rise was due to the increase in international oil prices (see Figure 2) and an increase in fuel consumption. The total volume of subsidized kerosene and diesel increased from 14.9 million kilolitres in 2015 to 16.1 million kilolitres in 2018 (BPH Migas, 2020).

The gasoline subsidy was IDR 11.19 trillion in 2015, and since then, the price gap between the domestic gasoline price and the international price has not been officially accounted as a subsidy. However, PT Pertamina was instructed to sell Premium gasoline (RON 88) at a fixed price of IDR 6,450 per litre, while the price of oil in the international market had been increasing since 2015—until the COVID-19 outbreak. Since the cost of the gasoline subsidy is no longer recorded in Indonesia's State Budget (ABPN), the reference of the Indonesian gasoline subsidy is switched to the PT Pertamina financial report on gasoline sales. Statements from PT Pertamina consistently indicate that the sales have been scoring losses for the company. In September 2017, PT Pertamina announced a loss of IDR 12 trillion (USD 95 million) on sales of the subsidized fuels at a price determined by the government (Agustinus, 2017). In April 2018, PT Pertamina's Marketing Director, Muhammad Iskandar, explained that the company took a loss of IDR 5.5 trillion from the sales of Solar and Premium in the span of two months, January and February 2018 (Yasmin, 2018). The company's net profit took a dip from USD 3.15 billion in 2016 to USD 2.4 billion in 2017 (Yasmin, 2018) to USD 2.5 billion in 2018, and is expected to drop to USD 2.1 billion in 2019 (Antara, 2020).

PT Pertamina's financial records are now the primary source used to keep track of Indonesian fuel subsidies. They have been helpful in understanding the current condition of fuel subsidy mechanics in Indonesia. Over the years, officials and top-ranked PT Pertamina officers have begun to embrace the reality of the existence of implicit subsidies in their sales. On the other side, President Jokowi Widodo keeps pushing PT Pertamina to reduce the dependency on oil imports, which is reflected in a campaign to use a palm oil blend in PT Pertamina's diesel product (BioSolar).

Following the decline in oil prices, various parties have been encouraging the government to make a downward adjustment in fuel prices. President Jokowi Widodo himself has asked state officials to closely monitor the movement of oil prices and calculate the impact of the decline on the economy, especially for fuel, both subsidized and non-subsidized. The Minister of Finance, Sri Mulyani, also hinted that there would be a reduction in fuel subsidies this year as a result of falling fuel consumption throughout the COVID-19 crisis and lower oil prices. "Information from the Minister of Energy and Mineral Resources shows that fuel consumption has fallen sharply, so naturally our subsidies for fuel will definitely go down," Sri Mulyani explained earlier in April (Umah, 2020c).

PT Pertamina admitted in early April 2020 that, so far, they have no plan to reduce fuel prices, despite falling oil prices. They projected a revenue decline of 38–45% compared to the previous year as well as missing the goals of the 2020 Corporate Work Plan and Budget. This sharp decline in revenue is due to the decline in world oil prices and the rupiah exchange rate against the U.S. dollar, without considering the potential reduction in the price of fuel. Hence, if later the price of fuel decreases, PT Pertamina's revenue is expected to erode more than the announced decline (Ramli, 2020b).





Previously, PT Pertamina Managing Director Nicke Widyawati said that their first consideration for not reducing the fuel price was the need to follow the price formula set by the Ministry of Energy and Mineral Resources (MEMR). The second consideration was their obligation to buy crude oil from domestic O&G Cooperation Contractors (KKKS), which are not as cheap as imported crude oil. Nicke also explained that PT Pertamina's sales revenue dropped by 24% as of late March due to the reduced consumption caused by the COVID-19 pandemic (Umah, 2020b).

The revised fuel formulation by the new Minister of Energy and Mineral Resources, Arifin Tasrif, also plays a role in the increase of the hidden subsidy through PT Pertamina. Arifin annulled the previous MEMR Regulation No. 187K/10/MEM/2019 signed on October 7, 2019, by the former minister of Energy and Mineral Resources, Ignasius Jonan, and issued MEMR Regulation No 62K/MEM/2020 dated February 28, 2020. The new rules are very different from Jonan's policy. For example, the time for determining the parameters of the current month in the formulation of the selling price of fuel becomes every two months instead of every month as per Jonan's previous regulation. The pricing formula itself also changed.

With this new regulation, according to the former head of the Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas), Rudi Rubiandini, the fall in fuel prices will only be seen by the public in May and June 2020. Assuming the April 2020 exchange rate of IDR 15,800 per USD 1, the Mean of Platts Singapore (MOPS) of USD 35 per barrel, and the Indonesian Crude Price (ICP) of USD 27 per barrel, the outcome of the fuel price formula would come down to IDR 5,650 per litre for Pertamina in June 2020 (Saputro, 2020). Although there are no signs yet of adjusting the fuel price, PT Pertamina has been giving out discounts in the form of 30% cashback for Pertamina and Dex Series for the period of April 27, 2020–May 23, 2020, for a limited number of customers (C. Akbar, 2020).

More active implementation of the formula-based pricing has seen a revival in the policy-making discussion in Indonesia after years of stagnation and price freezes during election periods, which affect not only PT Pertamina but all private fuel retailers in Indonesia, such as Shell and Total. The MEMR has been calculating a new set of prices in response to the oil price dip in recent months. This initiative coincides with the COVID-19 outbreak in Indonesia, and a price change is likely to be announced in the near future.

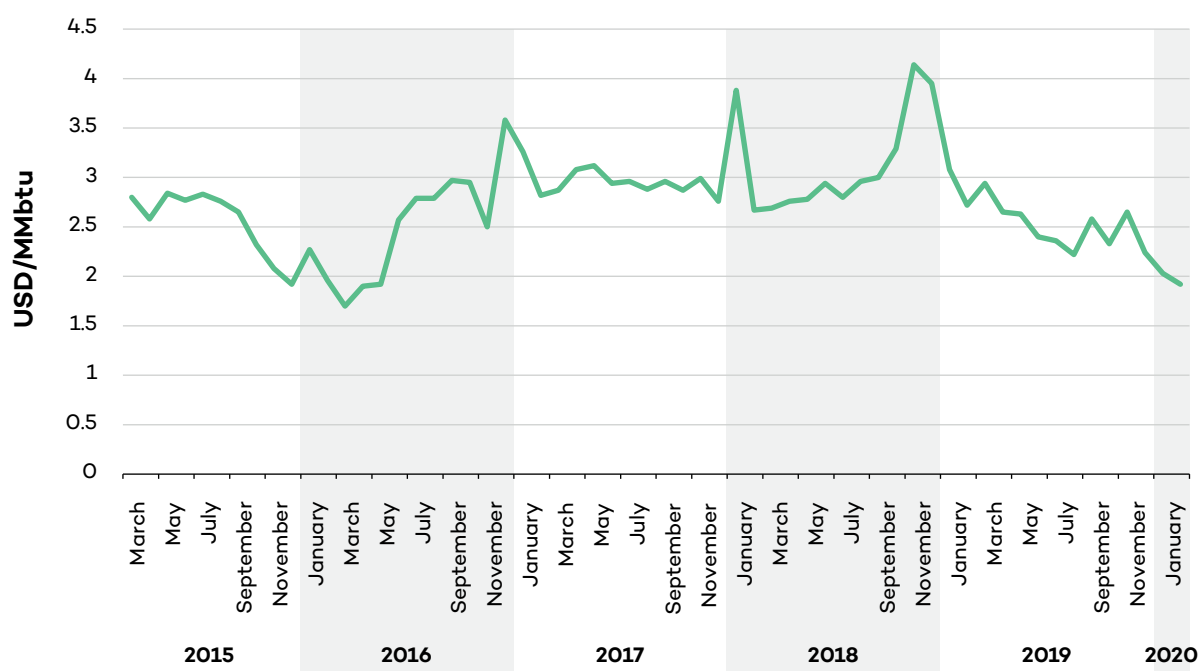
## 2.2 LPG

LPG subsidies have posed a significant load to the Indonesian budget. After the big cut on fuel subsidies in 2015, LPG emerged as the biggest component of fuel subsidies in Indonesia (see Table 1). The value of LPG subsidies rose from IDR 25.87 trillion in 2015 to IDR 58.14 trillion in 2018, mostly driven by an increase in demand and by international prices. For 2020, the government estimates that it will go down to IDR 50.6 trillion, following a slump in gas prices in the international market. The volume of subsidized LPG in Indonesia itself has been steadily increasing from 5.6 million tonnes in 2015 to 6.5 million tonnes in 2018, and potentially reaching around 7 million tonnes in 2020 (Line Today, 2020; Sembiring, 2019). Like liquid fuel, the LPG subsidy in Indonesia is susceptible to international energy prices and exchange rates, as around 70% of Indonesia's LPG supply is imported (Arvirianty, 2018; Ministry of Energy and Mineral Resources, Republic of Indonesia, 2019).



Ongoing LPG subsidy reform discussions in Indonesia focus on the improvement of targeting accuracy to limit the number of subsidy recipients based on the number of households in the Indonesian poverty database. The new LPG subsidy mechanism would be expected to involve biometric identification technology and the integration of the banking sector with Indonesia's social security system. This plan has been prepared for years but has failed to take off due to low policy priority and the limited ability to perform a trial run. The trial run finally concluded in mid-2019, with a promising result to be scaled up to the nationwide level (Issetiabudi, 2019)

**Figure 3.** International natural gas prices, 2015–2019



Source: Indxmundi, 2020b.

The main challenge in LPG subsidy reform in Indonesia lies in the ability to transform the subsidy into a social security allowance. Once the transformation is complete, the LPG subsidy should be accessed only by people who are registered in the Indonesian poverty database. It is expected to drop the number of recipients from around 57 million households to 31.4 million households (Citra, 2020). The second challenge to this plan is to secure active participation from local governments and run a responsive monitoring system to help overcome the obstacles in implementing the project in its early phase. The third critical factor is ensuring the availability of a nationwide public information strategy, because this new subsidy mechanism involves new technology and a complex web of LPG distribution.



## 2.3 Coal

Coal has always played a major part in Indonesia's power generation, and the government expects it to continue to play a significant role in the decades to come. Coal is expected to meet 57% of the 35,000 MW plan. Despite the negative environmental and climate impacts of coal, Indonesia's coal industry has access to subsidies that can incentivize coal use in the coming decades.

Since the COVID-19 pandemic, coal has seen significant drops in volumes and prices, also affecting Indonesia's exports. MEMR recorded a decrease in the Indonesian reference coal price (HBA) in April 2020. This was due to reduced electricity consumption in the COVID-19 affected countries, resulting in lower coal demand in countries and a consequently slight impact on coal oversupply globally. The HBA in April was USD 65.77 per tonne, down by USD 1.31 compared to March (Fajar, 2020). Based on data from MEMR, Indonesia's exports in January and February reached 40.94 million tonnes, down 44.35% from the same period last year, which amounted to 73.57 million tonnes. As of March 27, 2020, coal exports reached 48.53 million tonnes. In the first quarter of last year, coal exports reached 115.14 million tonnes (Petriella, 2020a).

Earlier in March 2020, MEMR issued MEMR Regulation No. 7 of 2020 concerning Procedures for Granting Territories, Licensing and Reporting on Mineral and Coal Mining Business Activities. The issuance of this regulation is intended to ensure legal and business certainty, increase effectiveness and efficiency in the implementation of mining business activities, simplify bureaucracy and licensing, and encourage the development of mineral and coal exploitation. In essence, this regulation simplifies bureaucracy and licensing, as well as providing legal certainty over the procedure for filing for contract extensions (Andi, 2020b).

Meanwhile, several environmental non-governmental organizations view the issuance of MEMR Regulation No 7/2020 as an indication that Indonesia's commitment to reducing carbon emissions by 2030 by 29% is questionable. This regulation is seen to provide a lot of incentives and ease of doing business to launch even more coal activities in Indonesia, prompting even more carbon release. This regulation is also quite controversial due to some of its articles contradicting the Mineral and Coal Mining Law (Law No. 4/2009). The MEMR Regulation No 7/2020 states that the Minister of Energy and Mineral Resources has special authority to automatically extend Contract of Work (KK) and the Coal Mining Work Agreement (PKP2B) to a Special Mining Business Permit (IUPK)—even though the Mineral and Coal Mining Law clearly states that companies do not get an automatic extension (Wijaya, 2020). However, a spokesperson for MEMR stated that the special rights to the Minister of Energy and Mineral Resources clause is new since it has been previously regulated in MEMR Regulation No. 50/2018 [Article 43A] and MEMR Regulation No 51/2018 [Article 110A]. As a result of this contradiction, the Minerba Society Coalition reported MEMR Minister Arifin Tasrif to the Ombudsman of the Republic of Indonesia for alleged maladministration of the issuance of MEMR Regulation No. 7/2020 (Agung, 2020a).

The Indonesian Mining and Energy Forum said earlier in March that incentives in the form of reduced royalties are urgently needed for coal entrepreneurs in the midst of the COVID-19 pandemic since production and export of coal commodities in Indonesia are significantly



impacted by the pandemic. In response, the Government of Indonesia has already expanded the business sectors that are eligible to receive various fiscal incentives to reduce the impact of COVID-19 on the economy through fiscal stimulus package Volume II. The mining and coal industries are among the business sectors that are set to receive this package. Four types of incentives are offered under this package: an exemption from import tax for 6 months, a reduction in income tax by 30% for 6 months, personal income tax borne by the government, and accelerated restitution with the limit raised to IDR 5 billion (Kurniati, 2020).

## 2.4 Electricity

Plans for the electricity sector in Indonesia are defined around the 35,000 MW program and the supporting “fast track programs” to add the expected capacity. Fifty-seven percent of the total additional capacity of the 35,000 MW program comes from coal. At the same time, Indonesia still maintains a target of 23% new and renewable energy in the national energy mix by 2025. That would require significant additions of renewables in power generation, although Indonesia is currently not on track to meet this target (Suharsono et al., 2019). To accelerate renewables, Minister of Energy and Mineral Resources Arifin Tasrif had revealed plans to retire old fossil fuel-based power plants and replace them with renewable energy power plants. The conversion will be carried out for diesel power plants (PLTD) that are more than 15 years old, as well as coal power plants (PLTU) and steam gas power plants (PLTGU) that are more than 20 years (Wicaksono, 2020).

COVID-19 has affected electricity supply and demand. Since the pandemic hit, electricity demand for the commercial sector in Jakarta has dropped by 11.38%, the industrial sector has dropped 15.81%, and the residential sector has increased by 4.73% (Bisnis.com, 2020). PT PLN projected that some of 35,000 MW power plant construction projects would be hampered by the impact of the COVID-19 crisis, as PT PLN will prioritize high-value projects to continue in the midst of the pandemic. However, PT PLN has not specified the projects that were disturbed and only confirmed that the projects that were already running this year had to be completed (Setiawan, 2020).

This development could affect the government's replacement plans. Based on PT PLN's inventory, currently, there are 2,246 PLTD (with a total capacity of 1.78 GW), 23 PLTU (coal) (with a total installed capacity of 5.6 GW), and 46 PLTGU (gas) (with a total installed capacity of 5.9 GW) that are listed for conversion to renewable energy.<sup>3</sup> This move aligns with the government's effort to achieve 23% renewable energy in the national energy mix by 2025. Based on data from MEMR, the additional target of renewable energy power generation capacity by 2025 is 17.4 GW, with an investment value of around USD 41.2 billion. This investment value can further be broken down into USD 17.45 billion for geothermal power plants, USD 14.58 for hydro and micro-hydropower plants, USD 1.69 billion for solar and wind power plants, USD 1.37 billion for bioenergy, and USD 0.26 billion for hybrid power plants (Mulyana, 2020).

Responding to this, President Director of PT PLN (Persero) Zulkifli Zaini said that PT PLN is still reviewing the plan. Although still committed to encouraging the increase of the

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<sup>3</sup> A target date for the conversion has not been announced.



renewable energy portion of PT PLN, the best alternative at the time is to replace PLTDs with gas power plants or coal gasification. Currently, they are in the process of converting 52 PLTDs to gas. PT PLN would look for renewable energy alternatives for other PLTDs that could not be converted to gas, especially those located in remote areas (Umah, 2020a).

However, MEMR's plan to take out at least 5.6 GW of coal power plants seems to conflict with MEMR Regulation No. 7/2020, which gives out huge incentives to the coal industry, as well as the central government's plan to reduce coal exports while increasing domestic consumption. Both MEMR Regulation No 7/2020 and the plan to reduce coal exports would imply that there would be a surplus of coal stock in the country. At the same time, MEMR also plans to reduce a significant amount of coal power from the energy mix. Although the incentives given to coal producers through MEMR Regulation No. 7/2020 encourage coal gasification in order to reduce LPG imports, so far, private industries are still quite reluctant to invest in coal gasification, given its high investment cost.

In response to the pandemic's impact on electricity demand and PT PLN's difficulties in absorbing electricity from producing power plants, MEMR is examining the possibility for PT PLN to renegotiate power plant contracts with IPPs. MEMR is currently conducting a study regarding this option while adjusting the projected electricity growth. The current projected electricity growth was calculated with the assumption of 6–7% economic growth, while the Minister of Finance said that the worst-case scenario of the COVID-19 outbreak is economic growth falling to -0.4% in 2020 (Agung, 2020b). This would imply quite a huge decline in terms of electricity demand, as well as a decline in PT PLN's sales revenue and, eventually, their ability to pay IPPs. The capacity payment clause in power purchase agreements also implies that PT PLN would have to pay a fine if it is unable to purchase electricity according to the contract.

In addition to reviewing ongoing contracts, a recent report from the Institute for Energy Economics and Financial Analysis (IEEFA) also suggested that the government review the entire 35,000 MW project,<sup>4</sup> which is expected to place a burden on PT PLN's finances amid the COVID-19 pandemic (Brown, 2020). Even before the pandemic, IEEFA estimates based on the 2019 electricity supply business plan (RUPTL) showed that, in 2021, 23,000 MW of the 35,000 MW program would be online (Petriella, 2020b). If the demand does not pick up and updated bearish growth prospects become real, the new capacity would imply an added burden on PT PLN's finances due to the contractual capacity payments with IPPs.<sup>5</sup> Under this scenario, the renegotiation of new contracts and the cancellation of projects that have yet to be realized (especially the large-scale coal power plants in Java) should be considered. IEEFA further pointed out that subsidies and fiscal incentives for PT PLN in 2020 and 2021 must increase by at least 85%, or IDR 55 trillion, because PT PLN's 2021 IPP payment would be their biggest expenditure, reaching a total of IDR 119.8 trillion (USD 7.2 billion) under the current arrangements. This does not include the added burden coming from the

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<sup>4</sup> The plan is broken down into two phases. The short term is to 2029, and the ultimate deadline is pushed back to 2049.

<sup>5</sup> These imply that, regardless of whether the power produced by the plant is being dispatched or not, there is a minimum payment that PLN must pay to IPPs.





weakening of the rupiah against U.S. dollars, since 80% of PT PLN's expenditures and debt payments are in USD (Brown, 2020).

### **Box 1. Free electricity as a countermeasure to the COVID-19 pandemic**

As one of the measures to respond to the pandemic, the government is rolling out PT PLN's free electricity program for certain categories of customers. This policy was taken as a step to reduce the economic impact of the COVID-19 outbreak. The first batch of electricity tariff stimulus is in the form of an electricity bill waiver from April to July 2020, with the possibility of extension, for 450 VA residential customers and a 50% discount for 900 VA subsidized residential customers. The government has set aside IDR 3.5 trillion for the first 3 months of this measure (Aini, 2020). The second batch of electricity tariff stimulus is a 6-month (from May to October 2020) tariff waiver for 450 VA small business customers (B1) and small industries (I1) (Idris, 2020).

#### **2.4.1 RENEWABLE ENERGY**

Since 2015, renewable energy investments have seen a declining trend. In 2019, only USD 1.5 billion out of the targeted investment of USD 1.8 billion was achieved. During 2015–2019, renewable energy generation capacity (on-grid and off-grid) only increased by 1.6 GW or 11% of the total additional installed capacity of the power plant by 15.5 GW, which is far lower than the realization in the period 2010–2014 (Institute for Essential Services Reform, 2020).

On February 24, 2020,<sup>6</sup> MEMR issued Ministerial Regulation No. 4/ 2020, affecting renewable energy sources. This regulation serves as the second amendment to MEMR Regulation No. 50/2017 regarding Utilization of Renewable Energy Sources for Electricity Supply. This regulation was prepared together with an upcoming Presidential Regulation (Perpres) that would regulate electricity tariffs from renewable sources. The new MEMR Regulation No 4/2020 is expected to overcome several regulatory obstacles related to renewable energy power plants and encourage investments. One of the most important changes addressed in this new regulation is the abolishment of the Build Own Operate Transfer (BOOT) scheme for all types of renewable energy power plants (Andi, 2020c). This can be seen as a positive development, since IPPs now may own all project assets and do not have to transfer such projects to PT PLN at the end of the term, helping the bankability concern surrounding most renewable energy projects. The new regulation also provides the possibility for projects currently under development to convert from the BOOT scheme to Build Own Operate (BOO).

Another positive development from the new regulation is that it makes the procurement process clearer for renewable energy projects: a direct selection process must be concluded within 180 days, whereas a direct appointment process must be concluded within 90 days.

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<sup>6</sup> This policy was previous to the COVID-19 crisis.



Although there are some positive developments from this revision, Ministerial Regulation No. 4/ 2020 still has not addressed the major roadblock to attracting investors, which is the electricity tariff (Suharsono, 2020). This new regulation still uses basic electricity generation cost (Biaya Pokok Pembangkitan [BPP]), which is heavily influenced by cheap coal intake in power generation as the benchmark for electricity tariffs. However, it is expected that the upcoming Presidential Regulation (Perpres) will address the issue of renewable energy tariffs (Andi, 2020a).

## Box 2. Solar energy support as a post-COVID-19 green recovery plan

MEMR identified several impacts from the pandemic that might affect the renewable energy industry, mostly in terms of investment. MEMR predicted a lot of projects would face cost increases due to project delays, which would result in rising overhead costs and interest rates. Other issues include low electricity demand, restricted mobility for personnel and logistics, as well as delays in disbursement of funds from financial institutions due to project uncertainties.

To mitigate these issues, the government has prepared several incentives for the renewable energy industry in the form of tax incentives (exemption of value-added tax and income tax for renewable energy developers) and other stimuli, such as deferment of loan instalments, a lower increase rate for renewable energy projects, and adjustments to procurement terms, such as relaxation on commercial operation dates and exemption from penalties (Ebtke, 2020).

### 2.4.2 PT PLN BUSINESS RESTRUCTURING PLAN

PT PLN receives the biggest portion of government fiscal support to SOEs, mostly to support the 35,000 MW plan. Electricity subsidies have remained relatively stable, with some variations. However, lower growth and a decrease in power demand due to COVID-19 is affecting PT PLN's financials.

MEMR has asked PT PLN to focus more on increasing electricity sales amid predicted slow world economic growth.<sup>7</sup> In addition, PT PLN is expected to strengthen transmission and distribution, since infrastructure development is key in improving service to customers.<sup>8</sup> The fact that the newly elected PT PLN CEO, Zulkifli Zaini, came from a strong banking background indicates that the government is focusing on improving PT PLN's financial performance. It was reported that PT PLN had debts up to IDR 604.46 trillion in the first semester of 2019, an increase of 24% over the same period the previous year (Pramisti, 2019). In addition, the ratio of PT PLN's debt to income and assets has also hit a worrying level. Therefore, it is understandable that the government is encouraging PT PLN to focus on

<sup>7</sup> At the time of writing, the government has not specified what the actual strategy would be. The aim is to ensure that new generation from the 35,000 MW program that is already partially online be absorbed by the industries and SOEs.

<sup>8</sup> PT PLN usually revises its general plan for electricity planning (RUPTL) every March/April. But since the appointment of the new cabinet and new CEO last year, there hasn't been any revision to the RUPTL.



distribution and service improvement rather than burdening them with building more power plants (Wijayanto, 2019).

During a press conference at the Ministry's office, the Minister of State-Owned Enterprises, Erick Thohir, stated that PT PLN should form a healthy business ecosystem with the private sector, SEOs, and regionally owned enterprises to produce electricity, while PT PLN themselves should focus on distribution (Afriyadi, 2019).

This move seems to be in line with the findings of an IEEFA report from 2019, which states that PT PLN's electricity purchase from IPPs rose 16% in 2018, and the operating losses previous to the government subsidy grew 75% over 2017 as fuel and new IPP payments outpaced slow unit sales growth (Brown, 2019). The report predicted that, if no dramatic actions were taken, PLN's operating losses are set to accelerate even more in the next two years, as a lot of new coal IPPs are expected to come online (Brown, 2019).





## References

- Afriyadi, A. D. (2019, December 23). Erick Thohir Beri Tugas Berat ke Bos Baru PLN Zulkifli Zaini, Apa Saja? [in Indonesian]. *detikfinance*. <https://finance.detik.com/energi/d-4833333/erick-thohir-beri-tugas-berat-ke-bos-baru-pln-zulkifli-zaini-apa-saja>
- Agung, F. (2020a, April 6). Menteri ESDM Arifin dilaporkan ke Ombudsman atas dugaan maladministrasi [in Indonesian]. *Kontan.co.id*. <https://industri.kontan.co.id/news/menteri-esdm-arifin-dilaporkan-ke-ombudsman-atas-dugaan-maladministrasi?page=2>
- Agung, F. (2020b, April 2). Pemerintah buka kemungkinan PLN lakukan renegotiasi kontrak pembangkit listrik [in Indonesian]. *Kontan.co.id*. <https://industri.kontan.co.id/news/pemerintah-buka-kemungkinan-pln-lakukan-renegosiasi-kontrak-pembangkit-listrik>
- Agustinus, M. (2017, September 6). Pertamina Rugi Rp 12 T, Bagaimana Kelanjutan BBM Satu Harga? [in Indonesian]. *detikfinance*. <https://finance.detik.com/energi/d-3631618/pertamina-rugi-rp-12-t-bagaimana-kelanjutan-bbm-satu-harga>
- Aini, N. (2020, April 2). Begini Mekanisme Pembebasan Tarif Listrik Akibat Covid-19 [in Indonesian]. *Republika Online*. <https://www.republika.co.id/berita/q84149382/begini-mekanisme-pembebasan-tarif-listrik-akibat-covid-19>
- Akbar, C. (2020, May 3). Promo Pertamina, Beli Pertamax dan Dex Dapat Cashback 30 Persen [in Indonesian]. *Tempo.co*. <https://bisnis.tempo.co/read/1338109/promo-pertamina-beli-pertamax-dan-dex-dapat-cashback-30-persen>
- Akbar, R. J. (2020, June 7). Pertama dalam Sejarah, Konsumsi BBM Pertamina Merosot Hingga 60 Persen [in Indonesian]. *Viva.co.id*. <https://www.viva.co.id/otomotif/1211539-pertama-dalam-sejarah-konsumsi-bbm-pertamina-merosot-hingga-60-persen>
- Andi, D. (2020a, March). Begini tanggapan pengamat soal terbitnya Permen ESDM No 4 Tahun 2020 [in Indonesian]. *Kontan.co.id*. <https://industri.kontan.co.id/news/begini-tanggapan-pengamat-soal-terbitnya-permen-esdm-no-4-tahun-2020?page=all>
- Andi, D. (2020b, April 2). Ini penjelasan Kementerian ESDM terkait poin pokok Permen ESDM No 7 Tahun 2020 [in Indonesian]. *Kontan.co.id*. <https://industri.kontan.co.id/news/ini-penjelasan-kementerian-esdm-terkait-poin-pokok-permen-esdm-no-7-tahun-2020>
- Andi, D. (2020c). Permen ESDM Nomor 4/2020 tentang energi terbaru terbit, apa saja poinnya? [in Indonesian]. *Kontan.co.id*. <https://industri.kontan.co.id/news/permen-esdm-nomor-42020-tentang-energi-terbaru-terbit-apa-saja-poinnya?page=all>
- Antara. (2020, February 3). 2019, Pertamina Proyeksi Laba Bersih Turun menjadi Rp 28,56 T [in Indonesian]. *Tempo*. <https://bisnis.tempo.co/read/1302874/2019-pertamina-proyeksi-laba-bersih-turun-menjadi-rp-2856-t/full&view=ok>
- Arvirianty, A. (2018, November 30). Hingga Oktober, Impor LPG RI Sentuh Rp 36 T. *CNBC Indonesia* [in Indonesian]. <https://www.cnbcindonesia.com/news/20181130144755-4-44447/hingga-oktober-impor-lpg-ri-sentuh-rp-36-t>
- Badan Pusat Statistik. (2020). *Pertumbuhan Ekonomi Indonesia Triwulan IV-2019* [in Indonesian]. Badan Pusat Statistik.



- Bisnis.com. (2020, June 11). PSBB Jakarta, Konsumsi Listrik Sektor Bisnis Turun [in Indonesian]. *Jakarta*. <https://jakarta.bisnis.com/read/20200611/77/1251139/psbb-jakarta-konsumsi-listrik-sektor-bisnis-turun>
- BPH Migas. (2020, February 27). Laporan Kinerja BPH Migas Tahun 2019. Selamat Datang di Situs BPH MIGAS [in Indonesian]. <https://www.bphmigas.go.id/pengumuman/laporan-kinerja-bph-migas-tahun-2019/>
- Brown, M. (2019, May 30). *IEEFA Indonesia: PLN's fractured finances require real leadership*. Institute for Energy Economics & Financial Analysis. <https://ieefa.org/indonesia-update-plns-fractured-finances-require-real-leadership/>
- Brown, M. (2020, April 7). *IEEFA Indonesia: PLN in crisis—Time for independent power producers to share the burden*. Institute for Energy Economics & Financial Analysis. <https://ieefa.org/ieefa-indonesia-pln-in-crisis-time-for-independent-power-producers-to-share-the-burden/>
- Citra, L. (2020, January 16). 10 Juta Rumah Keluarga Mampu Ikut Nikmati Subsidi Gas Elpiji [in Indonesian]. *kbr.id*. [https://kbr.id/nasional/01-2020/10\\_juta\\_rumah\\_keluarga\\_mampu\\_ikut\\_nikmati\\_subsidinya\\_gas\\_elpiji/102000.html](https://kbr.id/nasional/01-2020/10_juta_rumah_keluarga_mampu_ikut_nikmati_subsidinya_gas_elpiji/102000.html)
- Ebtke, J. (2020, April). *Dampak Covid-19 pada Pengembangan Energi Terbarukan di Indonesia* [in Indonesian]. Institute for Essential Services Reform. <http://iesr.or.id/wp-content/uploads/2020/04/Bahan-Vidcon-DJEBTKE-dengan-IESR-21-April-2020dek.pdf>
- Fajar, T. (2020, April 6). Konsumsi Listrik Berkurang, Harga Batu Bara Indonesia Turun Jadi USD65,77 per Ton [in Indonesian]. *OkeFinance*. <https://economy.okezone.com/read/2020/04/06/320/2194857/konsumsi-listrik-berkurang-harga-batu-bara-indonesia-turun-jadi-usd65-77-per-ton?page=1>
- Government of Indonesia. (2018). *Indonesian State Budget and State Budget Audit Report*.
- Idris, M. (2020, May 3). Sudah Berlaku, Listrik Gratis PLN 6 Bulan Bagi Pelanggan 450 VA Bisnis Halaman all [in Indonesian]. *Kompas.com*. <https://money.kompas.com/read/2020/05/03/090943526/sudah-berlaku-listrik-gratis-pln-6-bulan-bagi-pelanggan-450-va-bisnis?page=all>
- Indexmundi. (2020a, June 7). Crude Oil (petroleum); Dated Brent - Daily Price - Commodity Prices. *IndexMundi*. <https://www.indexmundi.com/commodities/?commodity=crude-oil-brent&months=180>
- Indexmundi. (2020b, June 7). Natural Gas - Monthly Price - Commodity Prices. *IndexMundi*. <https://www.indexmundi.com/commodities/?commodity=natural-gas>
- Institute for Essential Services Reform. (2020, January 16). *Bagaimana Prospek Perkembangan Energi Bersih di Indonesia di 2020?* [in Indonesian]. <http://iesr.or.id/prospek-perkembangan-energi-bersih-indonesia/>
- Issetiabudi, D. E. (2019, June 23). ESDM Harapkan Implementasi Subsidi Tertutup Gas LPG 3 Mulai 2020 [in Indonesian]. *Ekonomi*. <https://ekonomi.bisnis.com/read/20190623/44/936697/esdm-harapkan-implementasi-subsidi-tertutup-gas-lpg-3-mulai-2020>



- Jakarta Post. (2017, November 17). Pertamina says fuel prices need to be increased. <https://www.thejakartapost.com/news/2017/11/17/pertamina-says-fuel-prices-need-to-be-increased.html>
- Kementerian Keuangan Republik Indonesia. (2020). *APBN 2020*. <https://www.kemenkeu.go.id/single-page/apbn-2020/>
- Kementerian Keuangan Republik Indonesia (2020). *Data APBN*. <https://www.kemenkeu.go.id/dataapbn>
- Kurniati, D. (2020, April 17). Selain Manufaktur, Ini 11 Sektor Usaha yang Bakal Dapat Insentif Pajak [in Indonesian]. *DDTC News*. [https://news.ddtc.co.id/selain-manufaktur-ini-11-sektor-usaha-yang-bakal-dapat-insentif-pajak-20345?page\\_y=0](https://news.ddtc.co.id/selain-manufaktur-ini-11-sektor-usaha-yang-bakal-dapat-insentif-pajak-20345?page_y=0)
- Kusuma, H. (2020, June 6). Sri Mulyani Jelaskan Defisit APBN Melebar ke Rp 1.039 T. *detikfinance* [in Indonesian]. <https://finance.detik.com/berita-ekonomi-bisnis/d-5043070/sri-mulyani-jelaskan-defisit-apbn-melebar-ke-rp-1039-t>
- Line Today (2020, July 7). Ini tanggapan Kementerian ESDM dan Pertamina soal penerapan subsidi LPG dengan kartu [in Indonesian]. *Line Today*. <https://today.line.me/id/pc/article/Ini+tanggapan+Kementerian+ESDM+dan+Pertamina+soal+penerapan+subsidi+LPG+dengan+kartu-BQq9Z2>
- Ministry of Energy and Mineral Resources, Republic of Indonesia. (2019). *Handbook of energy and economic statistics of Indonesia 2018*.
- Mulyana, R. N. (2020, February 2). Kementerian ESDM rencanakan ganti pembangkit listrik diesel dan uap uzur menjadi EBT [in Indonesian]. *Kontan.co.id*. <https://industri.kontan.co.id/news/kementerian-esdm-renanakan-ganti-pembangkit-listrik-diesel-dan-uap-uzur-menjadi-ebt?page=all>
- OFX.com. (2020). *Yearly average rates*. <https://www.ofx.com/en-au/forex-news/historical-exchange-rates/yearly-average-rates/>
- Pertamina. (2020a, January 31). *Daftar Harga BBK Tmt 01 Februari 2020* [in Indonesian]. PT Pertamina (Persero). <https://www.pertamina.com/id/news-room/announcement/daftar-harga-bbk-tmt-01-februari-2020>
- Pertamina. (2020b, April 18). *Permintaan BBM Turun Hingga 35%, Pertamina Lakukan Pemeliharaan Kilang* [in Indonesian]. PT Pertamina (Persero). <https://www.pertamina.com/id/news-room/news-release/permintaan-bbm-turun-hingga-35-pertamina-lakukan-pemeliharaan-kilang>
- Petriella, Y. (2020a, March 28). Ada Corona, Insentif Penurunan Royalti Batu Bara Sangat Diperlukan [in Indonesian]. *Ekonomi*. <https://ekonomi.bisnis.com/read/20200328/44/1219082/ada-corona-insentif-penurunan-royalti-batu-bara-sangat-diperlukan>
- Petriella, Y. (2020b, April 12). Proyek 35.000 MW Dinilai Bebas Keuangan PLN di Tengah Wabah Corona [in Indonesian]. *Ekonomi*. <https://ekonomi.bisnis.com/read/20200412/44/1225842/proyek-35.000-mw-dinilai-bebani-keuangan-pln-di-tengah-wabah-corona>



- Pramisti, N. Q. (2019, December 23). Tugas Berat Zulkifli Zaini: Proyek Listrik 35 Ribu MW & Utang PLN [in Indonesian]. *Tirto.ID*. <https://tirto.id/tugas-berat-zulkifli-zaini-proyek-listrik-35-ribu-mw-utang-pln-eoEj>
- Presiden Republik Indonesia. (2018). *Peraturan Presiden No 43/2018* [in Indonesian].
- Purnomo, A. (2020, April 21). Harga Minyak Dunia Minus, Ini Daftar Harga BBM Pertamina, Shell dan Total Halaman all [in Indonesian]. *Kompas.com*. <https://otomotif.kompas.com/read/2020/04/21/115837115/harga-minyak-dunia-minus-ini-daftar-harga-bbm-pertamina-shell-dan-total?page=all>
- Ramli, R. R. (2020a, March 27). Konsumsi Elpiji Naik, Stok Pertamina Aman? Halaman all [in Indonesian]. *Kompas.com*. <https://money.kompas.com/read/2020/03/27/075441426/konsumsi-elpiji-naik-stok-pertamina-aman?page=all>
- Ramli, R. R. (2020b, April 27). Jika Harga BBM Turun, Pendapatan Pertamina Bisa Anjlok Lebih dari 45 Persen [in Indonesian]. *Kompas.com*. <https://money.kompas.com/read/2020/04/27/142008626/jika-harga-bbm-turun-pendapatan-pertamina-bisa-anjlok-lebih-dari-45-persen>
- Reuters. (2020, April 8). Pertamina seeks to defer gasoline imports as coronavirus hits demand. *ET EnergyWorld*. <https://energy.economictimes.indiatimes.com/news/oil-and-gas/pertamina-seeks-to-defer-gasoline-imports-as-coronavirus-hits-demand/75047950>
- Saputro, W. (2020, April 27). Dengan Rumus Baru Menteri ESDM, Harga BBM Pertamina Turun Pada Juni jadi Rp 5.650 [in Indonesian]. *kumparan.com*. <https://kumparan.com/kumparanbisnis/dengan-rumus-baru-menteri-esdm-harga-bbm-pertamax-turun-pada-juni-jadi-rp-5-650-1tJ12HnWB2C/full>
- Sembiring, L. J. (2019, August 20). Subsidi Turun, Harga BBM dan Tarif Listrik Naik di 2020? [in Indonesian]. *CNBC Indonesia*. <https://www.cnbcindonesia.com/news/20190820163558-4-93374/subsidi-turun-harga-bbm-dan-tarif-listrik-naik-di-2020>
- Setiawan, V. N. (2020, April 16). PLN Sebut Proyek Listrik 35.000 MW akan Tersendat Imbas Pandemi Corona [in Indonesian]. *Berita Katadata.co.id*. <https://katadata.co.id/berita/2020/04/16/pln-sebut-proyek-listrik-35000-mw-akan-tersendat-imbaspandemi-corona>
- Suharsono, A., McCulloch, N., Mostafa, M., Bridle, R., Lontoh, L., & Gass, P. (2019). *Getting to 23 per cent: Strategies to scale up renewables in Indonesia*. International Institute for Sustainable Development. <https://www.iisd.org/library/getting-23-cent-strategies-scale-renewables-indonesia>
- Suharsono, A. (2020, June 22). *Will Indonesia's COVID-19 recovery plans support a green transition?* Global Subsidies Initiative of the International Institute for Sustainable Development. <https://www.iisd.org/gsi/subsidy-watch-blog/indonesia-covid-recovery-green>
- Umah, A. (2020a, January 31). ESDM Minta Pembangkit Tua Diganti EBT, PLN Siap? [in Indonesian]. *CNBC Indonesia*. <https://www.cnbcindonesia.com/news/20200131141326-4-134280/esdm-minta-pembangkit-tua-diganti-ebt-pln-siap>



- Umah, A. (2020b, April 23). Harga Minyak Dunia Turun, Kenapa Harga BBM Belum Turun? [in Indonesian]. *CNBC Indonesia*. <https://www.cnbcindonesia.com/news/20200423173745-4-154006/harga-minyak-dunia-turun-kenapa-harga-bbm-belum-turun>
- Umah, A. (2020c, April 2). Harga Minyak Terjun Bebas, Pertamina-DPR Hitung Harga BBM [in Indonesian]. *CNBC Indonesia*. <https://www.cnbcindonesia.com/news/20200402120331-4-149335/harga-minyak-terjun-bebas-pertamina-dpr-hitung-harga-bbm>
- Utama, K. (2020, June 7). Dampak Ekonomi Dipetakan [in Indonesian]. *Republika*. <https://www.republika.id/posts/5710/dampak-ekonomi-dipetakan>
- Utami, S. S. (2020a, April 18). Akibat Covid-19, Pertamina Setop Operasi Kilang Balikpapan [in Indonesian]. *MSN*. <https://www.msn.com/id-id/news/other/akibat-covid-19-pertamina-setop-operasi-kilang-balikpapan/ar-BB12O7rf>
- Utami, S. S. (2020b, March 26). Pertamina Tambah Pasokan BBM-LPG di Masa Darurat Covid-19 [in Indonesian]. *MSN*. <https://www.msn.com/id-id/news/other/pertamina-tambah-pasokan-bbm-lpg-di-masa-darurat-covid-19/ar-BB11KhXS>
- Wicaksono, P. E. (2020, January 30). Pemerintah Bakal Ganti PLTU Tua dengan Energi Terbaru [in Indonesian]. *Liputan6.com*. <https://www.liputan6.com/bisnis/read/4167836/pemerintah-bakal-ganti-pltu-tua-dengan-energi-terbaru>
- Wijaya, T. (2020, April 7). Permen ESDM Nomor 7/2020, Komitmen Indonesia Turunkan Emisi Karbon Dipertanyakan [in Indonesian]. *Mongabay.co.id*. <https://www.mongabay.co.id/2020/04/07/permen-esdm-nomor-7-2020-komitmen-indonesia-turunkan-emisi-karbon-dipertanyakan/>
- Wijayanto, N. (2019, December 26). Pemerintah Minta PLN Fokus Jualan Listrik. *Sindonews* [in Indonesian]. <https://ekbis.sindonews.com/read/1480510/34/pemerintah-minta-pln-fokus-jualan-listrik-1577351289>
- Yasmin, P. A. (2018, April 10). Pertamina Rugi Rp 5 T di Awal Tahun Jual Premium dan Solar [in Indonesian]. *detikfinance*. <https://finance.detik.com/energi/d-3964141/pertamina-rugi-rp-5-t-di-awal-tahun-jual-premium-dan-solar>



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