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Never Waste a Crisis

Indonesia's PLN Needs a Coherent Strategy to Ride Out the COVID-19 Pandemic

Executive Summary

The COVID-19 crisis has not been kind to Perusahaan Listrik Negara (PLN), Indonesia's state-owned power monopoly. Not only was it heavily criticized by customers over a billing fiasco that created nation-wide confusion, but PLN's financial health and longevity have been critically scrutinized by Indonesia's House of Representatives in multiple hearings over recent months.

This is cause for serious concern. In June, the PLN CEO Zulkifli Zaini conceded before the House of Representatives that PLN's financial condition is deteriorating. Power demand has fallen sharply due to large-scale social restrictions (PSBB) and PLN's debt levels are rising as the company struggles to meet fixed costs.[1] Its cash flow problem was worsened by the fact that the government has only paid IDR 7.7 trillion out of IDR 45.4 trillion (USD 3.1 billion) compensation owed to PLN for freezing electricity tariffs since 2017.[2]

Dysfunctional planning and governance have put the company into strategic paralysis.

PLN is not alone in this situation. Utilities around the world have seen power consumption nosedive as much as 20.0% since 2019 because of the COVID-19 crisis. But the roots of PLN's problems are deeper than just the pandemic: PLN's quiet crisis reflects dysfunctional planning and governance that have put the company into strategic paralysis, unable to change direction or adapt to new market realities.

Utilities globally started changing the way they do business years ago. With the advent of transformative innovations in renewable energy technology, storage systems, and smart-grid applications, utilities have embraced change and learned to redefine development goals. Utilities that understood this opportunity acted fast to adapt their system infrastructure to accommodate the new technology.

Unfortunately, PLN stands out as laggard, focused on a confused menu of piecemeal generation options rather than holistic planning that provides system-level solutions. What causes this underperformance? Sadly, the single-minded focus on the 35Gigawatt fast- track program has blinded senior planners to new market

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[1] Medcom.id. Utang Capai Rp 500 Triliun, Dirut Akui Keuangan PLN tak Sehat, 25 June 2020.
[2] Bisnis.com. Utang Pemerintah kepada PLN Masih Tersisa Rp 37.72 Triliun. 12 August 2020.

realities that demand a switch from overreliance on inflexible baseload coal to cost-effective modular solutions that flexible renewables can deliver.

Despite all the warning signs, senior managers still run the power sector with an old-fashioned, business-as-usual mindset. Unfortunately, a 2010 playbook will not save PLN from falling deeper into a modern-day debt trap. Indulging in an extractive economy mindset that fosters dependence on fossil fuel also won't save PLN. There has to be a willingness to ask the hard questions when PLN's ocean of red ink keeps signaling that the utility's resource-driven development plans are obsolete in a high-technology world.

A few weeks ago, video footage showing President Joko Widodo's exasperation during a Cabinet meeting was leaked. Widodo was seen making a fiery speech showing his frustration with the Cabinet's slow progress in dealing with the COVID-19 pandemic. The President forcefully reminded his ministers that the current situation is not business as usual—it is a crisis that demands a swift response and extraordinary efforts from all parties.

Jokowi's speech exemplifies what is needed from PLN. The company needs to seize the moment and change its strategies. Simply conducting business as usual will not work. To ride out the storm, PLN needs to know when to change course and adjust the sails. The time to do it is now. Capital is moving away from fossil fuels and toward utility-scale renewables. For example, the IEA World Energy Investment 2020 report found that investment in fuel supply has received the hardest hit, while investment in utility-scale renewable power has been more resilient.[3]

The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails.

– William Arthur Ward

The 35 GW Program Has Become a Free Pass To Uncontrolled Growth That PLN Cannot Afford

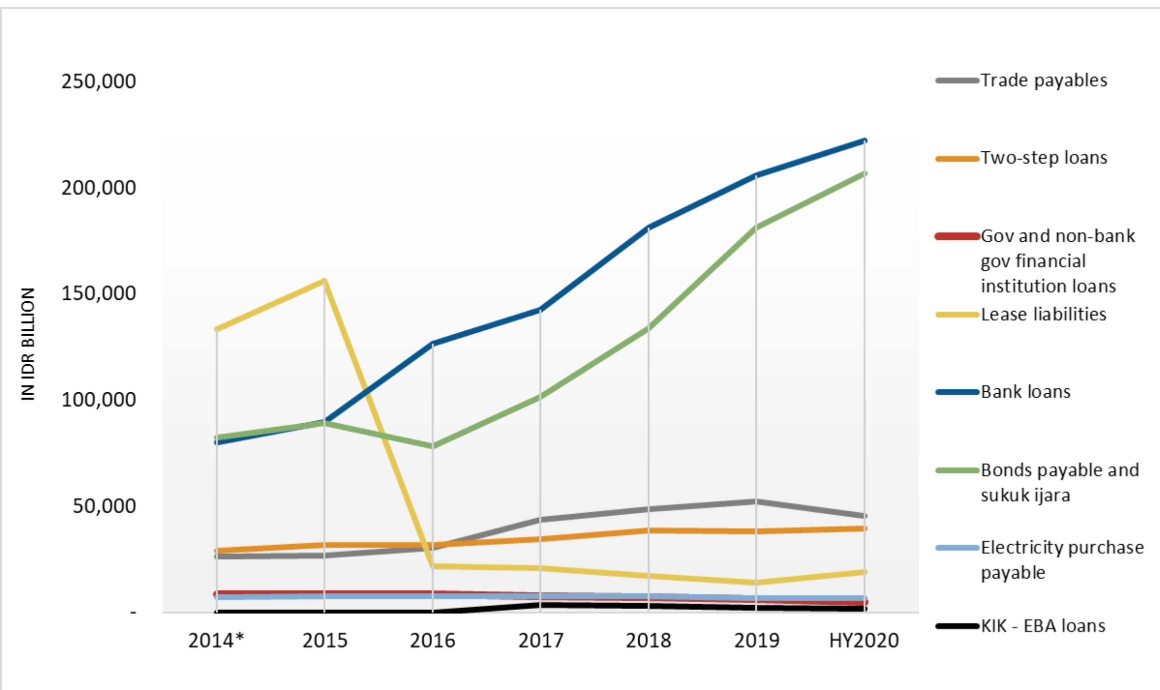
The 35 GW program is a political promise that was meant to embody President Joko Widodo's (Jokowi's) ambition to fully electrify Indonesia. There is nothing wrong with the ambition, but the subsequent planning and execution has lacked accountability. Adding generation capacity has become a goal with little attention to long-term financial impacts or new system design options. In the absence of much-needed checks and balances, PLN has been driven to the brink and taxpayers will be left to pay the price.

[3] IEA. World Energy Investment 2020. May 2020

In a recent House of Representatives hearing, PLN chief executive Zulkifli Zaini raised concerns about PLN's rising debt burden, which rose to IDR 500 trillion (USD34 billion) at the end of 2019. Due to PLN's heavy capex schedule, growing IPP payments, and weak tariff profile, PLN has had little choice but to fund its 35 GW dreams with IDR 100 trillion of new debt each year for the last five years. According to Zaini, most of these projects were 100% financed by debt since PLN does not have enough internal equity. As a banker, he understands this is not healthy.[4]

PLN's debt has grown at an average 15.6% annually since 2015. Its debt to equity ratio has hovered around 50%-70% over the last five years.[5] This buildup in PLN's debt burden was partially engineered in 2015 by a change in accounting treatment which permitted PLN to revalue its assets. This optical change resulted in a doubling of PLN's fixed assets from IDR 500 trillion to over IDR 1.1 quadrillion. Absent this asset revaluation, PLN's debt-to-equity ratio would have reached at least 170% by the end of 2019—a level that would well have triggered more oversight.

Figure 1: PLN Liabilities Year-on-Year[6]



Source: PLN Annual Reports.
Note: Lease liabilities plummeted in 2016 as a result of the changes in accounting treatment whereby PPA contracts were no longer accounted as leases but instead as sale/purchase of electricity. Meanwhile, both bank loans and bonds payable have more than doubled over the last five years.

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[4] Medcom. Utang Capai Rp 500 Triliun, Dirut Akui Keuangan PLN tak Sehat. 25 June 2020.
[5] Based on PLN Annual Reports 2015-2019.
[6] Not including deferred tax liabilities, payables to related parties, employee benefit liabilities, other payables, taxes payable, accrued expenses, customers' security deposits, project cost payable, deferred revenue, and derivative liabilities.

PLN said in a press release on July 28 that unit demand had grown only 0.9% for the first half of 2020, a relatively small increase from 118,522 GWh in first half of 2019 to 119,651 GWh in the first half of 2020. Even if demand doubles in the second half of the year, total demand growth for 2020 will be nowhere near the 6.2% target forecasted in the 2019 RUPTL (electricity supply business plan).

PLN's CEO has announced several strategies to manage the damage to PLN's cash flow. The first step would slash capital expenditures by half this year, from an initially earmarked IDR 100 trillion to IDR 53.6 trillion.[7] Cutting expenditures to halt unnecessary generation projects is a good starting point for protecting PLN's financial position from further harm.

To be fair, PLN did come up with a new corporate strategy known as "PLN Transformation: Power Beyond Generation." It emphasizes the development of more green energy, optimizing dispatch, pushing for innovation through digitalization, and focusing on customers. The PLN Green Energy Transformation, as it stands now, include plans to convert some coal fired-power plants to use biomass co-firing (mostly woodchips), replacing diesel power plants with renewables and gas, installing floating PV on existing dams or ex-coal mines, and a big hydro program for industrial needs.

PLN's financial problems result from inaccurate forecasts and inflexible payment obligations.

These efforts are well–intentioned and were styled as a change in strategy, but in fact, they are not. The focus on generation-centric planning is out-of-step with the strategies used by successful utilities. Their planning prioritizes system solutions based on cost-effective utility-scale solar and wind units paired with storage and smart grid applications.

PLN needs to make sure that the power sector reform is not just cosmetic. The best strategy for PLN would be to rebase their planning framework to focus on more cost-effective grid investments that improve the long-run efficiency of the whole power system. Private sector players cannot invest in the grid and have therefore crowded into the generation sector. This has accentuated PLN's narrow focus on baseload generation has resulted in excess capacity and a brittle system that lacks flexibility. What's needed now is a more grid-centric strategy that would permit PLN's investment to enable a more efficient system.

With COVID-19 forcing a re-set of PLN's growth plan, what is required now is a thorough review of the 35GW dream. This is overdue because Indonesia's growth profile has flatlined since the target was first set in 2014, when Indonesia's GDP

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[7] Jakarta Post. PLN slashes capital expenditure by half this year. 26 June 2020.

growth lingered around 5.1% and planners were wary of power shortages. Even before the COVID-19 recession, Indonesia's 5.0% GDP growth in 2019 fell short of its 5.5% target. With second-quarter 2020 showing a severe 5.3% economic contraction, and the Minister of Finance downgrading growth prospects due to COVID-19, it makes obvious sense for PLN to revise the rigid growth metrics that have created excess generation capacity as a result of the 35GW program.

IEEFA's analysis finds that PLN's financial problems are the direct result of inaccurate demand growth forecasts and an aggressive buildup of inflexible payment obligations to coal-fired independent power producers (IPPs). The flaw in this strategy is particularly apparent in the Java-Bali grid, where reserve margins are high while demand growth is low. In depressed times like this, PLN has all the evidence it needs to see the importance of reversing policies that have resulted in unaffordable IPP payment obligations that PLN will struggle to meet.

The 2020-2029 RUPTL, which has been delayed for revision, will be particularly crucial because it offers an opportunity to reset PLN's strategy. A system-level solution for a sustainable, profitable, and resilient power sector should be the goal. But PLN cannot achieve this alone. The government needs to support a new direction for the power sector and make sure that projects that are not needed can be cancelled. This would enable planners to re-assess all system needs, with a focus on cost–effective new technology options.

PLN's Success in Raising Capital Is Directly Linked to Indonesia's Investment Grade Status

Like many struggling state-owned enterprises, PLN has enjoyed preferred access to the U.S. bond market, due to Indonesia's commitment to offer high levels of support to PLN bondholders in the event of any financial distress. This extraordinary level of support has shielded PLN against potential harm from its financial problems over the past 10 years. As a result, most of its global bonds have been issued at competitive yields ranging from 3.0% to 6.2%.

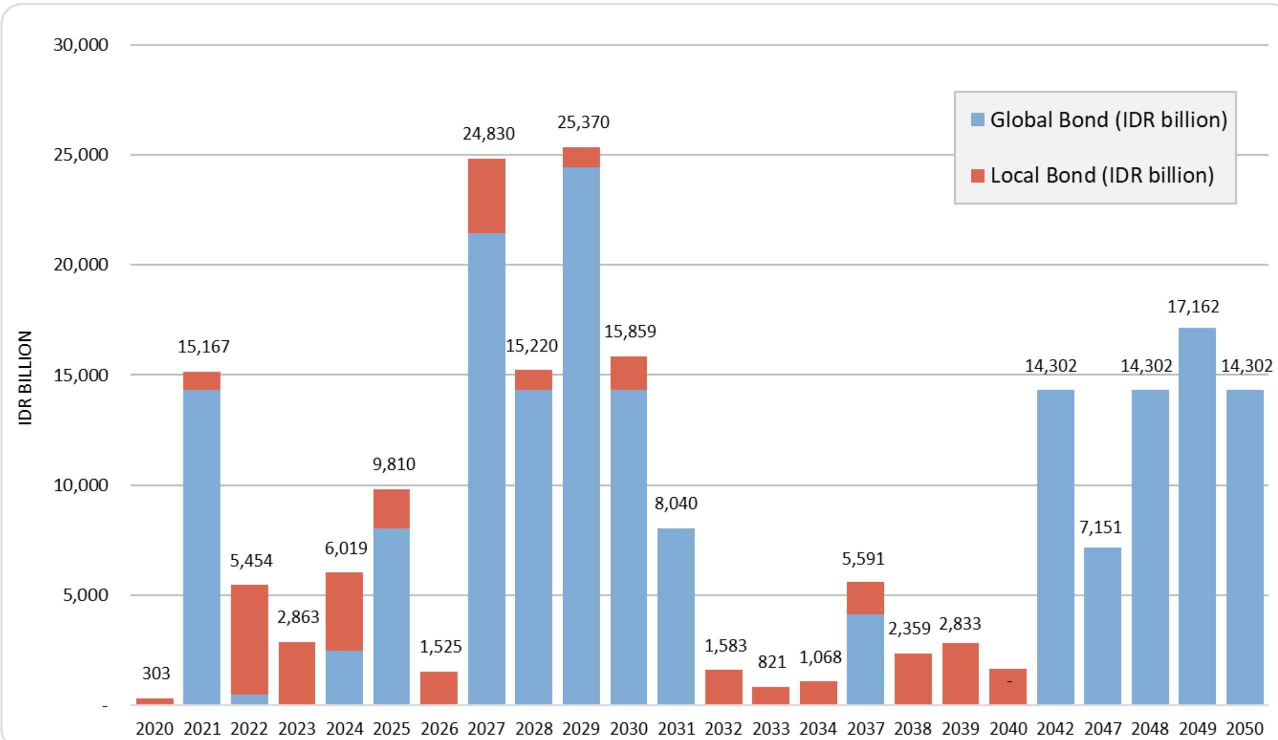
Over the past months, however, PLN's rising debt level has raised red flags with many experts, including fixed income analysts. In its latest 2019 audited financials, PLN's booked total liabilities of IDR 656 trillion. The amount grew to IDR 685 trillion by the first half of 2020.[8] Of the IDR 685 trillion, as much as IDR 181 trillion came from new bonds and sukuk (a Shariah compliant loan certificate) issues while IDR 222.4 trillion was raised from banks or other non-bank financial institutions.

Thanks to Indonesia's sovereign rating umbrella and the Ministry of Finance's high level of support, PLN enjoyed continued access to the debt markets as recently as June 2020, despite further deterioration in Indonesia and PLN's fundamentals. Amid the pandemic, PLN managed to close the deal for a dual tranche bond issue of US$500 million and US$ 1 billion, respectively, achieving surprisingly low yields of

[8] PLN Interim Consolidated Financial Statements (Unaudited), 30 June 2020.

3.0% and 4.0%. The bonds were oversubscribed, with indications of interest totaling US$4.4 billion according to Reuters.

Figure 2: Total PLN Bond Principal by Year of Maturity



Source: PLN Interim Consolidated Financial Statements (Unaudited), 30 June 2020.

Favorable yields such as these raise the question: How can investors hold PLN in such high regard if its financials are so weak?

The answer lies in the theory that market valuations are based on absolute and relative criteria. In the case of PLN, its bonds are still attractive on a relative basis because of the company's monopoly and its quasi-sovereign status. The good news is that Indonesia's sovereign is still performing better than some other emerging markets peers. The bad news is, with the highly dynamic situation and uncertainties because of the pandemic, that no one is sure how far the state budget can be stretched before weakening fundamentals trigger a credit rating downgrade.

An Excerpt From Moody's Key Rating Considerations on PLN:	**An Excerpt From Fitch's Key Rating Considerations on PLN:**
"PLN's Baa2 ratings reflect the strategic importance of PLN, and Moody's expectation of a very high likelihood of support from the Indonesia government (Baa2 stable) in a distressed situation. The ba3 baseline credit assessment (BCA) reflects the company's position as Indonesia's only vertically integrated electric utility, including its dominant position in generation, transmission, and distribution businesses. The ba3 BCA also considers the continued shortfall in receipts from the government, PLN's increasing dependence on government subsidies and very high financial leverage, which will likely remain elevated given its involvement in national capacity addition programs."	*"PLN's rating is equalised with that of Indonesia (BBB/Stable), based on our expectations of a 'Very Strong' likelihood of support, in line with Fitch's Government-Related Entities (GRE) Rating Criteria. PLN's Standalone Credit Profile (SCP) of 'bb+' reflects the state-owned company's monopoly position in Indonesia's electricity-transmission and distribution sectors, dominant position in power generation, cost-plus business model and moderate financial profile."*

Source: Moody's Announcement of Periodic Review, 25 June 2020 and Fitch Rates PLN's Proposed USD Notes 'BBB', 21 June 2020.

The real risk for PLN currently is if Indonesia loses its investment grade status. In a recent rating action commentary, Fitch reaffirmed that one of the factors that could, individually or collectively, lead to negative rating action or downgrade of the Indonesian sovereign would be "a rapid increase in the overall public debt burden, for example resulting from budget deficits well exceeding the current 3.0% ceiling or accumulation of the debt of publicly owned entities."[9]

This may already have been the case. The Ministry of Finance (MOF) increased Indonesia's fiscal deficits twice in 2020, from 1.7% to 5.1%, and most recently to 6.3%. The MOF has also announced that it is planning to keep the fiscal deficit at 5.5% for 2021, 4.0% for 2022, and gradually back to 3.0% by 2023.[10]

[9] Fitch Rates PLN's Proposed USD Notes 'BBB', 21 June 2020.
[10] As mentioned by Minister of Finance Sri Mulyani on a Fitch Webinar at August 12, 2020, and a press conference on financial notes and the 2021 State Budget on August 14, 2020.

Table 1: Indonesia's State Budget and its Revisions

(In IDR trillion)	State Budget 2020	Presidential Regulation 54/2020 (3rd April 2020)	Presidential Regulation 72/2020 (24th June 2020)
State Revenue	**2,233.2**	**1,760.9**	**1,699.9**
Tax	1,865.7	1,462.6	1,404.5
Non-tax revenue	367.0	297.8	294.1
Grant	0.5	0.5	1.3
State Expenses	**2,540.4**	**2,613.8**	**2,739.2**
Central gov spending	1,683.5	1,851.1	1,975.2
Transfer to local gov and village fund	856.9	762.7	763.9
National Economic Recovery Program		**677.2**	**695.2**
Health		87.6	87.6
Social safety nett		203.9	203.9
Sectoral		97.1	106.1
MSMEs		123.5	123.5
SOEs & Corporations		44.6	53.6
Working capital for MSMEs		120.6	120.6
Deficit	**1.76%**	**5.07%**	**6.34%**
MOF Forecast		**Scenario: Heavy**	**Scenario: Super Heavy**
GDP growth	5.3%	2.3%	-0.4%
Poverty level (million people)		+ 1.89	+4.86
Unemployment (million people)		+2.92	+5.23

Source: Ministry of Finance presentations to the media.

News flow on Indonesia's credit profile may well be distinctly negative for the medium term. But for the time being, any risk of further weakening in Indonesia's credit profile may be offset if emerging market peers perform as badly or slightly worse.

A banker involved in PLN's latest bond deal said, "The pricing is in line with recent issues as funds are buying new bonds at aggressive levels—either flat or negative to the secondary curve—because they have money to put to work."[11]

The willingness of investors to accept Indonesia's weakened credit profile is part of a larger market scenario that has seen investors continue to seek yields in emerging markets as developed market yields head to zero. While this has helped Indonesia's funding efforts in the short term, it should not be taken to mean that the market commends PLN's financial performance.

It is worth noting that PLN has a significant maturity wall looming in 2021 with IDR 15.1 trillion of maturing bonds that will need to be refinanced (see Figure 2). This refinancing exercise will come while 5 GW of new coal plants come online in the Java-Bali grid. This development will deepen PLN's financing hole due to a dramatic rise in fixed IPP payments and reveal the scale of excess capacity that currently

[11] IFR Magazine. 27 June 2020

afflicts PLN's main grid. PLN's deteriorating fundamentals are now a risk for the government of Indonesia.

Is There A Limit to the Indonesian's Government Support for PLN?

Perhaps the biggest policy flaw that has shaped PLN is the absence of consistent oversight. No industry benefits from badly designed incentives or a lack of engaged oversight that permits stakeholders to weigh up sensitive trade-offs between service and cost. As a result, the credit rating agencies' (CRAs) are not wrong to shade their assessments of PLN based on a view that the Indonesian government will inevitably provide strong backing to PLN lenders, regardless of how far PLN drifts off course. This has resulted in a 'don't ask-don't tell' scenario where even obvious strategic risks go unaddressed.

Table 2: Government Support for PLN

in IDR million	2014	2015	2016	2017	2018	2019	2020E	2021E
Cash Support:								
Capital Injection	-	5,000,000	23,560,000	-	-	6,500,000	9,600,000	
Subsidy (in IS)	99,303,250	56,552,532	58,043,265	45,738,215	48,101,754	51,711,774	54,790,000	50,470,000
Compensation (in IS)				1,787,809	23,173,464	22,253,517	22,253,517	
Electricity discount for 450VA and 900VA household customers - (COVID program)							12,331,000	
Electricity discount for social, business, and industry customers							3,070,000	
Payment of dividend	-	(3,962,441)	(2,137,752)	(2,150,837)	(308,715)	(4,000,000)		
Total	**99,303,250**	**57,590,091**	**79,465,513**	**45,375,187**	**70,966,503**	**76,465,291**	**102,044,517**	**50,470,000**
Non Cash Support:								
Assets revaluation (boosted asset values)		653,441,218			49,521,759			
Changes in accounting treatment - from lease to electricity sale & purchase (following POJK No 6/POJK.04/2017)			43,428,454					
Total Non Cash Support	**-**	**653,441,218**	**43,428,454**	**-**	**49,521,759**	**-**		

Source: PLN financial reports, Ministry of Finance. Financial Notes II and the 2021 Draft of State Revenue & Expenditure Budget (RAPBN), Dirjen Ketenagalistrikan. Kompas, Indozone, Bisnis.com.
Note: 2017 compensation was not paid in cash, but through an offset mechanism with PLN's tax liabilities. The 2018 & 2019 compensation has only been paid IDR 7.7 trillion up to July 2020. The amount of subsidy for 2020 is as set by the Indonesia Government State Budget 2020, while the amount of compensation for 2020 is yet to be agreed. IEEFA estimates compensation for 2020 will be at least the same or more than in 2019.

One clear sign of this breakdown in accountability is the build-up of different types of direct and indirect support that are critical to PLN's survival. Government support for PLN has come not only in the form of subsidies and compensation, but the government has also rushed to the rescue whenever PLN's deteriorating financials have required a capital injection or special treatment.

For example, on top of the yearly subsidies provided for eligible customers, special compensation was required in 2018 and 2019 in the run-up to the 2019 election when tariffs were frozen. This special benefit to ratepayers was meant to unwind after the election but slower economic growth and COVID-19 have changed priorities. More recently, to provide social protection against COVID-19, the government has stepped in to ease PLN's low–income customers payment ability by giving discounts to certain classes of customers from April to December 2020. This new program for PLN's low–income customers is expected to cost a further IDR 12.3 trillion.[12]

In addition, based on instructions from President Widodo, the Ministry of Energy and Mineral Resources (MEMR) announced that there will be extended discounts for social, business and industrial customers by scrapping minimum monthly electricity fees, at a total cost of IDR 3.1 trillion.[13] The total amount of compensation for 2020 has yet to be agreed. Even so, it is more than likely that PLN will receive a top-up on the level of compensation granted last year—in addition to compensation for electricity discounts.

On top of cash subsidies, PLN also receives capital injections, compensation for electricity discounts, and government guarantees.

On top of cash subsidies, compensation,[14] capital injections and compensation for electricity discounts, PLN has also received non-cash government support that provides a crucial cushion for it to raise debt. This includes special government guarantees on certain bank debt, plus at least two special accounting treatments that have specifically benefited PLN.

The first was an asset revaluation implemented in 2015, and the second was a specific regulation issued by the Financial Services Authority (POJK no 6/POJK.04/2017).[15] This regulation allows special accounting treatment for sales and purchases of electricity under power purchase agreements (PPAs) for listed or public companies providing electricity for public services.[16] Before January 2016,

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[12] Jakarta Post. Govt to spend $1b on electricity fee relief for households, businesses amid pandemic. 12 August 2020.
[13] MEMR Press Release. 11 August 2020
[14] The Indonesian government differentiated the definition of subsidy and compensation. Subsidy is the difference between cost of supplying power to subsidized select PLN customers, mainly poor households and some social and government buildings, and the tariff charged to the customer. While compensation is reimbursement from the government to cover the difference between cost of production and the tariff that has been frozen by the government since 2017
[15] Otoritas Jasa Keuangan. Perlakuan akuntansi atas jual beli listrik. 2 March 2017.
[16] Previously PLN needed to follow the ISFAS 8 accounting rule, which treats PPAs and ESCs as leases.

PLN applied ISFAS 8 accounting regulation to evaluate whether a certain PPA or energy service contract (ESC) was deemed to contain a lease. Some PPAs might contain a lease element that should have been treated differently in accounting. Treating PPAs as leases will increase lease liabilities and lower the cost of buying from IPPs, while PLN's cost of fuel and maintenance would increase. After the POJK regulation was issued, PLN was permitted to treat these contracts differently. The current treatment is valid until PLN completes the Fast-Track and 35GW programs mandated by the government.

Taken together, these two accounting methods amount to little more than window dressing for PLN's gearing ratio. If the company and its subsidiaries did not apply the revaluation model and certain PPAs were to be treated as leases, then as of yearend 2019, PLN's lease liabilities would have amounted to IDR 216.7 trillion (instead of IDR 14.1 trillion), while PLN's net carrying value of property, plant and equipment assets would have been IDR 551 trillion (instead of IDR 1,400 trillion).[17] This is an accounting game designed to create the impression that PLN's debt-to-equity and current ratios are still at safe levels.

These accounting methods amount to little more than window dressing for PLN's gearing ratio.

Although PLN financial officers may hope that the market is none the wiser, rating agencies are not oblivious to this window dressing. For example, Moody's uses adjusted financial metrics and treats the PPAs as lease liabilities to rate PLN's stand-alone Baseline Credit Assessment (BCA).

Considering Indonesia's current pressured fiscal position and its grim outlook, the government is expected to support troubled state-owned enterprises (SOEs) more selectively. As of March 2020, the gross combined debt of Indonesian SOEs stood at 7.3% of GDP, up from 4.7% two years earlier.[18] PLN, however, is considered top priority by the Ministry of Finance, given PLN's strategic importance. While this support is a benefit for PLN's bond holders and bankers, it does not mean that PLN's financial problems can be addressed by endless access to cheap debt that could eventually threaten Indonesia's financial credibility.

One critical accountability test for PLN, the Ministry of Finance, the Ministry of State-Owned Enterprises and Bank Indonesia is how PLN's foreign exchange risks are disclosed and managed. Over the past five years, PLN has reported foreign exchange losses of IDR27.5 trillion. In the background is a range of government guarantees provided to lenders to support PLN's Fast Track 1 IPP program. According to the MOF Financial Notes Book II, the government has issued 32 loan

[17] PLN Annual Report 2019. p. 80 and 233
[18] Fitch Ratings. Fitch Affirms Indonesia at BBB – Outlook Stable. 10 August 2020.

guarantee letters for coal power projects and 4 guarantee letters for transmission projects. The total guaranteed amount was IDR 97.5 trillion.[19] As of December 2019, these loans accounted to IDR 22.7 trillion, out of which IDR 18.1 trillion is USD debt.

Another guarantee is also provided to ensure that PLN can fulfill its financial obligations to IPPs for both the Fast-Track and 35GW programs. These guarantees are often referred to as "PLN's business viability guarantee." It is difficult to determine the total amount without transparency in the PPA contracts. At least one other program includes loans provided by development banks (ADB, IDB, and IBRD) to PLN that are guaranteed by the Indonesian government, amounting to IDR 22.1 trillion as of December 2019.

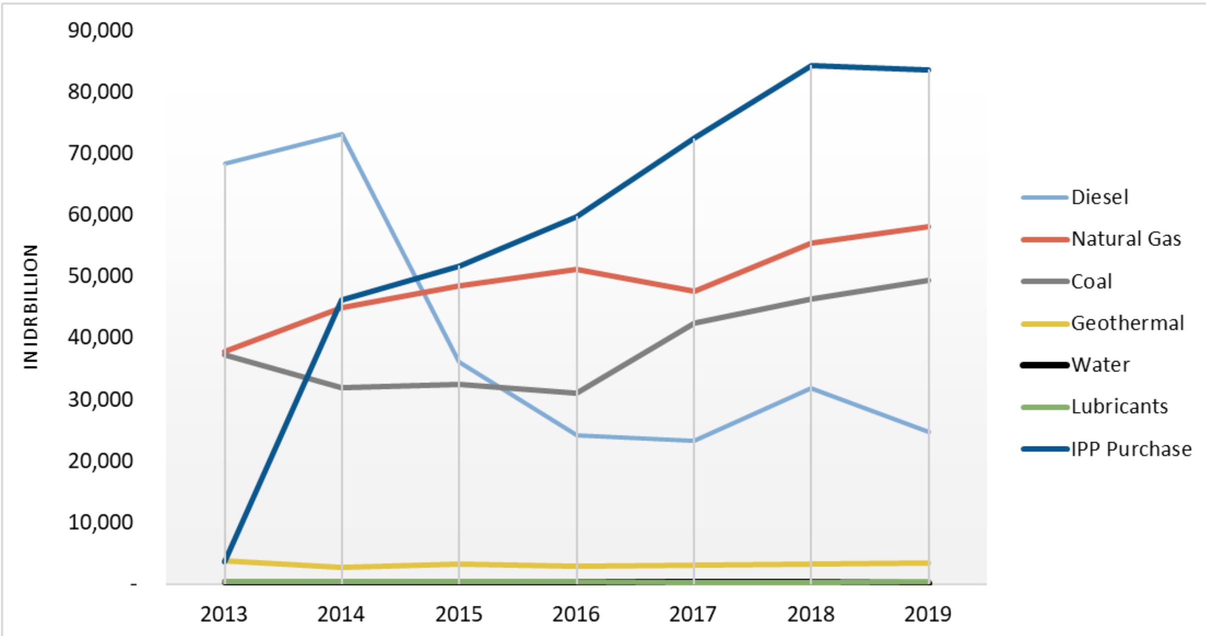
These programs can play a role in materially reducing borrowing costs, but the lack of transparency is notable. The COVID-19 crisis has once again shown how PLN's growth plans may conflict with rapidly-changing and counter-cyclical policy priorities. Were the crisis to worsen, it would be tragic to discover that PLN's over-optimistic growth plans have added liabilities to the national balance sheet that don't align with the needs of emergency crisis management. That is why a more careful accounting of PLN's reliance on government support deserves more oversight.

Capping Gas Prices Helps PLN's Cash Flow But It's a Zero-Sum Game for the State Budget

PLN's two largest operating expenses are fuel and IPP costs. They accounted for 43.1% and 26.5% of PLN's 2019 operating costs, respectively. In the past, diesel made up the largest share of fuel costs, but diesel costs have declined significantly since 2013. Meanwhile, gas and coal costs have increased by an average of 8% and 6% since 2014. They made up 42.7% and 36.3% of total fuel costs in 2019.

[19] Ministry of Finance. Financial Notes II and the 2021 Draft of State Revenue & Expenditure Budget (RAPBN) page 365-368. August 2020.

Figure 3: PLN Fuel Cost vs IPP Cost



Source: PLN Financial Reports.

In Figure 4, the increased cost of purchasing power from IPPs in 2014 is a result of changes in accounting treatment as described on pages 175-176 of PLN's Annual Report 2015, and pages 127-128 in PLN's Annual Report 2016. Previously PPA contracts were treated as lease contracts and counted in the profit and loss statement under financial cost.

The significant rise in gas expenses reflects increases in volume usage, and not price. PLN's gas price has always been controlled by the government. It was previously capped at a maximum of 14.5% of the Indonesian Crude Price (ICP) at plant gate, or maximum of 8.0% of ICP for wellhead gas. Over the last five years, this has resulted in gas prices ranging from US$3.5 to US$11/MMBtu.

By yearend 2019, PLN paid an average of US$8.4/MMBtu.[20] Most of PLN's gas is supplied by the Pertamina Group—Indonesia's National Oil Company (NOC), wholly owned by the Indonesian government—from either PT Perusahaan Gas Negara (PGN), PT Pertamina EP, or PT Pertamina Hulu Energi. Regardless of the supplier, PLN's gas price is controlled by the MEMR and generally hovers above the global market price.

This changed in April 2020, when MEMR finally granted PLN's request to cap gas prices to US$6/MMBtu at the plant gate in 2020, and at US$7 to $8/MMBtu from 2021 onward.[21] PLN and its gas suppliers are expected to adjust their contracts to

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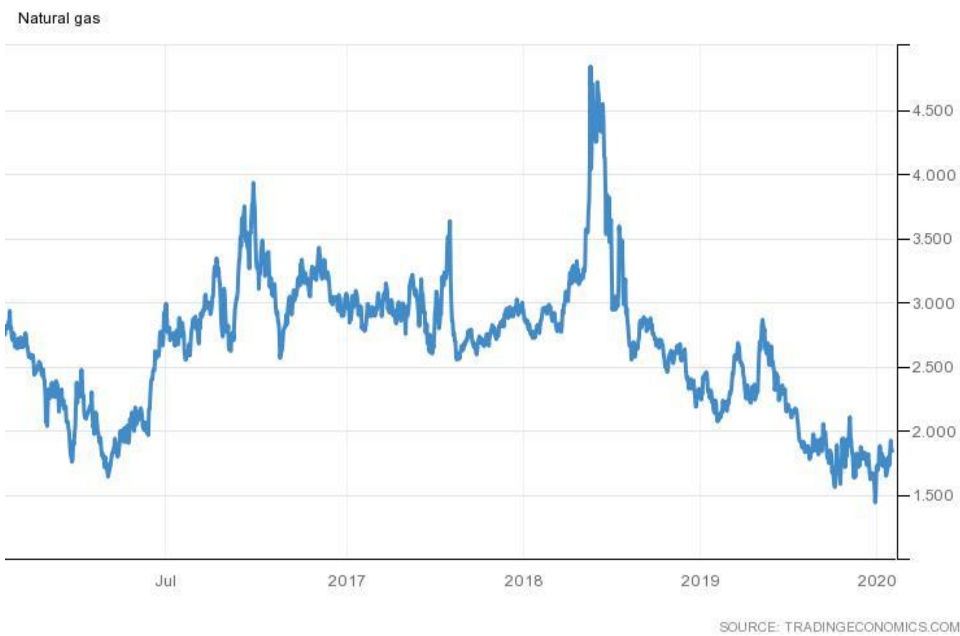
[20] Bisnis.com. Penyesuaian harga gas untuk kelistrikan berdampak pada cash flow PLN. May 2020.

[21] By issuing the MEMR Regulation no 10/2020 which is then followed by MEMR Decree no 91K/2020.

the new price cap. Although this is a welcome subsidy for PLN, the adjustment does not come close to aligning PLN's gas costs to market prices. By April, the global gas price had fallen to below US$2/MMBtu.

The continued decline in gas prices is no surprise to global gas analysts. In 2019, Morgan Stanley forecasted a 26% to 33% downside to European forward gas prices and 20% to 27% downside to forward Asian LNG prices (JKM) over the next few years. The price continued to deteriorate from a global gas glut caused by U.S. shale gas overproduction and weak demand due to the COVID-19 recession. By June 2020, natural gas had fallen as low as US$1.4/MMBtu. It is currently trading at US$2.3/MMBtu.[22]

Figure 4: Natural Gas Price Declines Consistently Since 2018



Source: Trading Economics, 31 July 2020.

As a short-term cost-cutting strategy, capping gas prices will create some breathing room for PLN, but it is not a good long-term solution for the Indonesian state budget. This is because by compensating gas sellers whose lifting cost is higher than the capped price, the government will take a hit on its non-tax revenues from gas production. This is contrary to the Domestic Market Obligation (DMO) regulation that put a cap on the coal price for domestic use, and coal miners are expected to carry the burden instead of the government.

Under this pricing policy, MEMR Director General of Electricity Rida Mulya has forecast net savings of IDR 4.5 trillion for the government. He notes that although the government will lose some revenue from its share of natural gas sales, the

[22] Trading Economics. 14 August 2020.

subsidy and compensation it must pay to PLN will also be reduced.[23]

However, the looming recession, a persistent decline in global gas prices, and plummeting demand will make it harder for Pertamina Group to keep its upstream costs competitive with major rivals. This presents a bigger downside risk to Indonesian government revenues. Meanwhile, PLN is stuck with supposedly cheaper gas that is still priced at a significant premium to the global market.

Investment in gas infrastructure is long-term, and gas pipelines typically need to be in service for a minimum 20 to 30 years to generate an adequate return. Yet in 20 years, gas might not be a cost-competitive source of peaking power. Power and heat could come from other sources, namely renewables that could be provided with less volatility at lower marginal cost. With this advantage, renewables could support grid investment without increasing customer bills.

Instead of protecting a sunset industry such as oil and gas, the government should invest in renewables.

The deflationary trend seen in onshore wind and solar prices worldwide should have reached Indonesia by now. Renewable energy should be seen as a growing industry that will be the consumers' first choice in the future. Instead of protecting a sunset industry such as oil and gas, the government would be well advised to invest in local supply chain infrastructure to boost the renewable energy industry.

Conclusion

On August 17, Indonesia celebrated its 75th independence anniversary. In his anniversary speech, President Widodo compared the current economic crisis to a computer crash, saying many countries were at risk of stagnation, and needed a reboot to restart the economy. He urged the country to set new goals, not only to escape the pandemic but also to take an ambitious leap that would make the most out of the crisis.

Though he did not specifically mention the power sector, President Widodo did highlight all the terms that power sector experts know only too well: Fundamental transformation, big strategy, innovation, security, and resilience. These are the elements upon which PLN needs to focus.

This report has shown the ample support received by PLN over the years, and how PLN struggles to perform in a financially sustainable way in spite of it. We have also highlighted the risks that could linger if PLN and the government remain locked into business as usual. Subsidizing the power sector is a policy choice that can be made by any country, but this is a choice that could backfire badly if the government fails

[23] Reuters. Indonesia to cap gas prices for PLN at US$ 6/MMBtu to cut subsidies. 6 March 2020.

to ensure the right checks and balances. There must be a transparent governance process in place to properly account for the public funds used to cover these costs..

PLN not only needs a reboot, it needs a comprehensive strategy overhaul that will realign the company with the market-driven solutions that are transforming the global power sector. Given the terrible consequences of the pandemic and the need for accountable leadership, this is the right time for Indonesia to establish an independent body to oversee the overall power sector. It is well past time to rein in the conflicting policy impulses that have paralysed PLN's decision-making and planning processes. Only a truly independent commission that acts with Indonesia's best long-term interests in mind can drive such change. To succeed, the new commission would need a mandate to modernise PLN's planning processes and put in place a rigorous oversight process to monitor, evaluate, and audit the implementation of key policies.

As the President said in his Independence Day speech: "All policies must prioritize [the] environment and human rights protection. Speed and precision should not be confused with carelessness and arbitrariness."[24]

The good intentions are there, and the president has spoken. Now, Indonesia must ensure the process and implementation are properly done, so that decision makers can embrace accountability rather than run from it.

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[24] DDTC. Teks Lengkap Pidato Kenegaraan Presiden Jokowi. 14 August 2020.

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The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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