

## BRIEF REPORT

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# EVALUATING THE NEW REGULATED GAS PRICING POLICY FOR INDUSTRIAL CUSTOMERS IN INDONESIA

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## Key Findings

- Compensation limit to upstream contractors could possibly not cover KKKS loss to reduce the natural gas price.
- No clear incentive mechanism for midstream entities could threaten the sustainability of business and infrastructure development.
- Unclear post-evaluation scheme for industry performance could lead to ineffective policy implementation and policy misuse.

## Recommendations

- Relaxing ring-fencing regulation allows the government shares from two different blocks or PODs to be merged.
- Implementing tax loss carryforward to compensate for the residual losses that yet to be covered.
- Assessing the reduction of toll fee as the largest contributor in the natural gas transportation cost.
- Creating a fair incentives mechanism for midstream companies to ensure business sustainability.
- Developing a post-evaluation scheme for industry to avoid the underperformance.
- Assessing lag time as a reference for national budget allocation and industry's performance evaluation.

## Background of the Policy

At the beginning of its development, most of Indonesia's natural gas production went to export markets due to a lack of domestic demand and infrastructure. However, since 2012, Indonesia's domestic natural gas consumption has surpassed natural gas export (Nugroho, 2004). The growth of domestic natural gas demand was consistent with the vision of the Government of Indonesia (GoI) to increase natural gas contribution in the national energy mix.

Industries and power plants have been the dominant consumers for domestic natural gas. Industries alone contributed to 38,71% of total natural gas consumption in 2019 (MEMR, 2020). The GoI identifies seven gas-intensive industries in Indonesia: fertilizer, petrochemical, oleochemical, steel, ceramics, glass, and rubber gloves.

The gas-intensive industries' production costs are highly sensitive to natural gas price changes. In the fertilizer and petrochemical industry, natural gas purchasing cost even contributes to 70% of their production costs (MoI, 2020). Moreover, according

to the Ministry of Industry (Mol), the seven gas-intensive industries purchase natural gas with prices ranging from USD 3.34/MMBTU to USD 16.7/MMBTU with an average price of USD 8.87/MMBTU (MEMR, 2020; Mol, 2020).

On the other hand, the low price of imported end products made the competition more challenging for the domestic gas-intensive industries to generate a decent profit to pursue a strong and long-term business plan (Mol, 2020). This will lead to the slow growth of domestic industries if they are unable to compete with imported products.

To boost gas-intensive industry growth, the Gol proposed a new regulation on adjusting natural gas prices. In April 2020, the Gol announced a new regulated natural gas price of USD 6/MMBTU for seven gas-intensive industries. The new regulated natural gas price is set lower than the average price of most gas-intensive industries.

The new regulated natural gas price is stipulated under the Ministry of Energy and Mineral Resource (MEMR) Regulation No. 8/2020 on Procedure for Determination of the User and Price for Certain Natural Gas in the Industrial Sector. The regulation is an implementation of the Presidential Regulation No. 40/2016 on the Determination of Natural-Gas Prices.

The new regulated natural gas price is expected to increase industry competitiveness and push the domestic industry's profit. The industry's higher

profit will potentially increase its production capacity and lead to business expansions. As a result, the Gol will benefit from the increase in value-added tax (*PPn*), corporate income tax (*PPh Badan*), individual income tax (*PPh Orang*), and the import duty (*Bea Masuk*).

A case found in the US shows that the US's shale gas production boom significantly reduces the US domestic natural gas price. The US's upstream natural gas price fell from around USD 11/MMBTU to about USD 3/MMBTU within a year (2008-2009). The low natural gas price improved the US manufacturing industry's competitiveness, especially for aluminum, chemical, iron and steel, glass, and paper industries (American Chemistry Council, 2013).

MEMR estimates that between 2020-2024 the new regulated natural gas price would increase tax revenue and dividend from the impacted industry by IDR 7.5 trillion or about USD 517 million (MEMR, 2020). Moreover, the natural gas price reduction will provide large multiplier effects, such as driving job, increasing local economic growth, and local welfare.

Nevertheless, several issues arise in the upstream, midstream, and downstream sectors in the first-year implementation of the new regulated natural gas price.

First, in the upstream sector, the government's compensation to cover each KKKS's<sup>1</sup> loss of revenue for reducing natural gas selling price is limited to the

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<sup>1</sup> Kontraktor Kontrak Kerja Sama, or Upstream Production Sharing Contractor is an oil and gas upstream contractor bound by a cooperation contract with the government to conduct oil and gas upstream activities in Indonesia

government take from each KKKS's agreement. The compensation limit gives a disadvantage to KKKS's whose loss of revenue is higher than the government take. In that case, the government take is not able to cover the KKKS's loss of revenue.

Second, in the midstream sector, a compensation mechanism for midstream natural gas business entity's loss of revenue to reduce natural gas price has not been established. These business entities include gas processing and transportation entities. Without a clear and fair incentive mechanism, the loss of revenue might reduce business entities' ability to further invest in natural gas infrastructure and processing facilities.

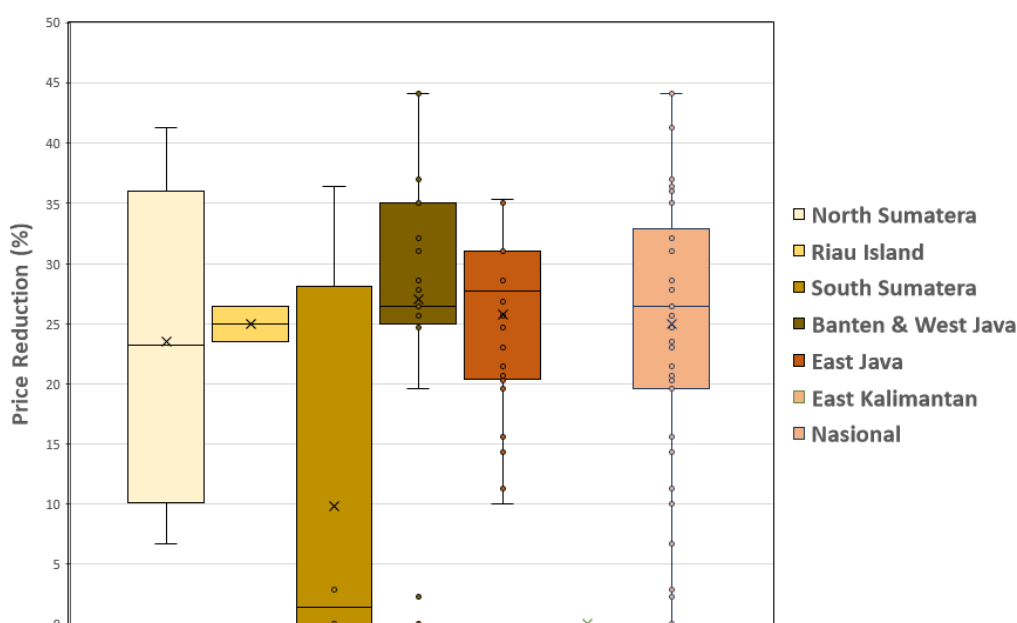
Third, in the downstream sector, there is no clear evaluation scheme to assess the industries' performance after the new regulated natural gas price has been implemented. The industry's level of performance will directly impact the lag time

between the start of the regulation implementation and industry growth. The more the industries are under-performed, the longer the lag time will be. Thus, the GoI would get the expected net revenue much longer.

Therefore, the above issues led the authors to conduct a preliminary assessment of the new regulated natural gas price policy for the industry. The assessment highlights some issues that can impact the regulation implementation's effectiveness and provides future recommendations for natural gas stakeholders, such as policymakers and natural gas industries.

### Brief Overview on MEMR No. 8/2020

By the enactment of MEMR No. 8/2020, there is remaining work to adjust the upstream and midstream natural gas prices to achieve USD 6/MMBTU in the plant gate.



**Figure 1** Gas price reduction after the implementation of the new regulated natural gas prices

In the upstream sector, SKK Migas, as an organization acting on behalf of the GoI to monitor and supervise upstream oil and gas activities, coordinates the upstream natural gas price's adjustment KKKS. The new regulated natural gas price should not reduce KKKS' revenue share because reducing KKKS' revenue share will reduce working capital. Moreover, the most important is that it gives a negative signal to future investment in Indonesia's upstream oil and gas sector. To avoid these issues, the GoI should be willing to reduce government take in compensating the loss of revenue of the impacted KKKS.

According to the MEMR Decree No. 89/2020 on Certain Natural Gas User and Price for Industry, KKKSs that supply natural gas to industries in the Banten and West Java regions see the highest percentage reduction of natural gas price reaching as high as a 45% drop from the previous level (**Figure 1**).

In addition, the midstream sector also needs to make sacrifices in meeting the new regulated gas price for the end-users. The new regulated gas price compels the midstream sector to reduce its margins and prices, including liquefaction cost, compression cost, LNG transportation cost, CNG transportation cost, storage cost, regasification cost, and transportation cost via transmission as well as distribution pipes.

Meanwhile, in the midstream sector, BPH Migas, the organization act on behalf of the GoI to supervise the downstream oil and gas activities, has the responsibility to implement the new regulated natural gas price. The MEMR Regulation No. 8/2020 states that any business entity which transports

natural gas to the seven industries could receive incentives from the GoI. However, currently, no clear incentive mechanism is on the table.

In the downstream sector, each entity within the seven targeted industries can request a new regulated natural gas price to the MOI. However, the entity has the responsibility to use the natural gas at an allocated volume as stipulated in the regulation. The entity must also report its business performance to MoI, pay the obligated tax, and obey the implementation instructions (*petunjuk pelaksanaan*). If the entity fails to fulfill its responsibility, the entity could be exempted from the new regulated natural gas price and get an administrative penalty.

The new regulated natural gas price and volume are determined for each entity from 2020 to 2024 in the MEMR Decree No. 89/2020. The MEMR Decree No. 89/2020 also states that the Directorate General of Oil and Gas (*Ditjen Migas*) of MEMR should review the new regulated natural gas price in annual terms or at any time with an urgent national economic consideration. Considering the above analysis, the main challenge in implementing this policy is not only how the natural gas price could be reduced in upstream and midstream sectors but also how to ensure the downstream industry could improve its business performance.

### **Preliminary Evaluation on The New Gas Pricing Policy for Industrial Customers**

In this report, we conduct preliminary evaluations on the new regulated gas prices policy for the seven targeted industries in Indonesia. We have found

several issues related to the implementation of the new regulated natural gas price in the upstream, midstream, and downstream sectors. We also provide solutions, recommendations, and suggestions as part of our evaluations. The evaluations are as follows:

**A. Upstream Compensation Limit**

From our analysis, ConocoPhillips Grissik will experience the largest annual revenue loss<sup>2</sup>, at about IDR 5,439 billion (Figure 2). The large revenue loss is consistent with ConocoPhillips Grissik's large gas volume supplied to the industry. However, for some other KKKS, the high allocation gas volume does not lead to a high loss of revenue. Despite having a higher

allocated volume, Pertamina EP (PEP) unit III or PEP III has a lower loss of revenue compared to PHE WMO. This is because the difference of their gas price, between the current gas price and the new regulated gas price, is not significant. This reflects that the impact of the new regulated gas price to KKKS is case-specific. Hence, a case-by-case approach should be taken to adjust the current gas price to the new regulated gas price.

Meanwhile, Indonesia's state-owned company (SOC), PT Pertamina (Persero), will suffer IDR 7,578 billion of annual revenue loss in total. The total includes the revenue loss of its upstream subsidiary, namely PEP I, PEP II, PEP III, PHE NSB, PHE OK, PHE ONWJ, and PHE WMO.

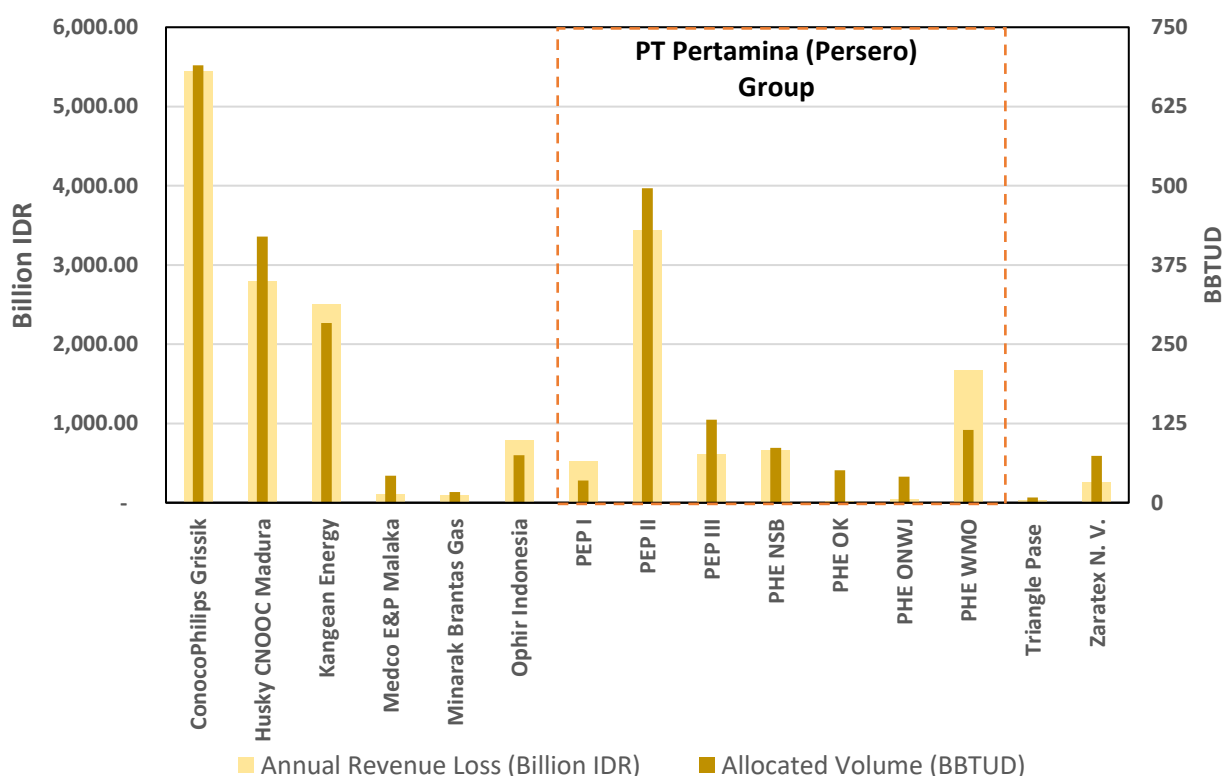


Figure 2 Annual revenue loss with the implementation of the new regulated gas prices for each KKKS

<sup>2</sup> The revenue loss is calculated based on allocated gas volume per KKKS and gas price difference, between the current price and the new regulated gas prices, in MEMR Decree No. 89/2020 and USD 1 = IDR 14,500.

So, without a proper compensation scheme to the KKKS, implementing the new regulated gas price will give a big burden, not only for private companies but also for PT Pertamina (Persero). On top of that, with its role in the downstream oil and gas sector, PT Pertamina (Persero) needs to keep its financial profile at a healthy level to fulfill government obligations or assignments such as distributing subsidized fuel and constructing oil & gas infrastructure.

Based on the MEMR Regulation No. 8/2020, the GoI needs to compensate for the impacted KKKS' revenue loss with a reduction of government take. However, the MEMR Regulation No. 8/2020 also states that the upstream compensation is limited to the maximum annual government take from each block or plan of development (POD)<sup>3</sup>.

The limitation clause has been one of the main issues for the KKKS. KKKS's could experience uncovered revenue losses if KKKS's annual revenue loss is higher than the annual government take. This condition will contradict a clause in the same MEMR regulation, which regulates implementing this new regulated natural gas price shall not affect KKKS' revenue.

Thus, there should be a procedure to allow KKKS' to receive compensation for their revenue loss from other sources. There are two proposed solutions to mitigate the issues: 1) ring-fencing policy relaxation and/or 2) tax loss carryforward implementation.

### **A.1 Ring-Fencing Policy Relaxation**

In general, ring-fencing is a policy that prohibits any consolidation of revenues and costs from one project to another project, even though the operator or interest holder is in the same company group. The ring-fencing policy aims to secure and to optimize the government take on the upstream sector.

According to SKK Migas, Indonesia has two ring-fencing policies on the upstream oil & gas sector, POD-based and block-based ring-fencing (SKK Migas, 2015). The POD-based ring-fencing prohibits any revenues and costs consolidation from different POD, even though they are in the same block and within the same company group. The POD-based ring-fencing aims to guarantee the maximum government revenue because it disallows the KKKS's revenue from a profitable POD to fund another POD. Therefore, the KKKS revenue from a profitable POD will be more secure, and the government take will also be guaranteed. Meanwhile, block-based ring-fencing allows the consolidation of revenue and cost on the same block but prohibits the revenue and cost consolidation on different blocks.

Relaxation of ring-fencing policy, especially the POD-based, will allow the government take from a profitable POD to cover losses in another POD impacted by the new regulated natural gas price.

Furthermore, the country base ring-fencing, as suggested by the Indonesia Petroleum Association

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<sup>3</sup> POD is a document representing development planning on one or more oil and gas fields in an integrated and optimal plan for the production of hydrocarbon reserves, considering technical, economic and environmental aspects, approved by SKK Migas and MEMR.

(IPA), might also be considered in the future.<sup>4</sup> The country-based ring-fencing permits the government take from one block to cover KKKS's revenue loss in a different block within the country and in the same group company.

## A.2 Tax Loss Carryforward Implementation

The second option to solve the upstream's compensation limit problem is allowing the KKKS' losses from the new regulated natural gas price to be carried forward for a maximum of 10 years, in the form of tax reduction.

The tax loss carryforward will reduce KKKS' future profit on the fiscal calculation in subsequent years. Thus, it will generate a lower KKKS' tax liability. With this scheme, the GoI will benefit from its ability to disperse the loss of KKKS' revenue over subsequent years. Meanwhile, the KKKS is benefited from the tax liability reduction in the future.

The implementation of tax loss carryforward is regulated in the Income Tax Law No. 36/2008 Article 6 paragraph (2) and Article 31A paragraph (1) as well as in the Government Regulation No. 53/2017 article 18 on the tax in the Upstream Oil and Gas Business Activities with a Gross Split Production Sharing Contract. According to Income Tax Law No. 36/2008, the GoI shall provide compensation loss for 5-10 years in various forms depending on the business types.

Furthermore, Government Regulation No. 53/2017 clearly states that the negative net income shall be compensated with the future profit of up to 10 years. However, currently, these regulations only apply for taxable revenue (*Pendapatan Kena Pajak, PNP*). Meanwhile, the new regulated natural gas price compensation is taken over from non-tax revenue (*Penerimaan Negara Bukan Pajak, PNBP*).

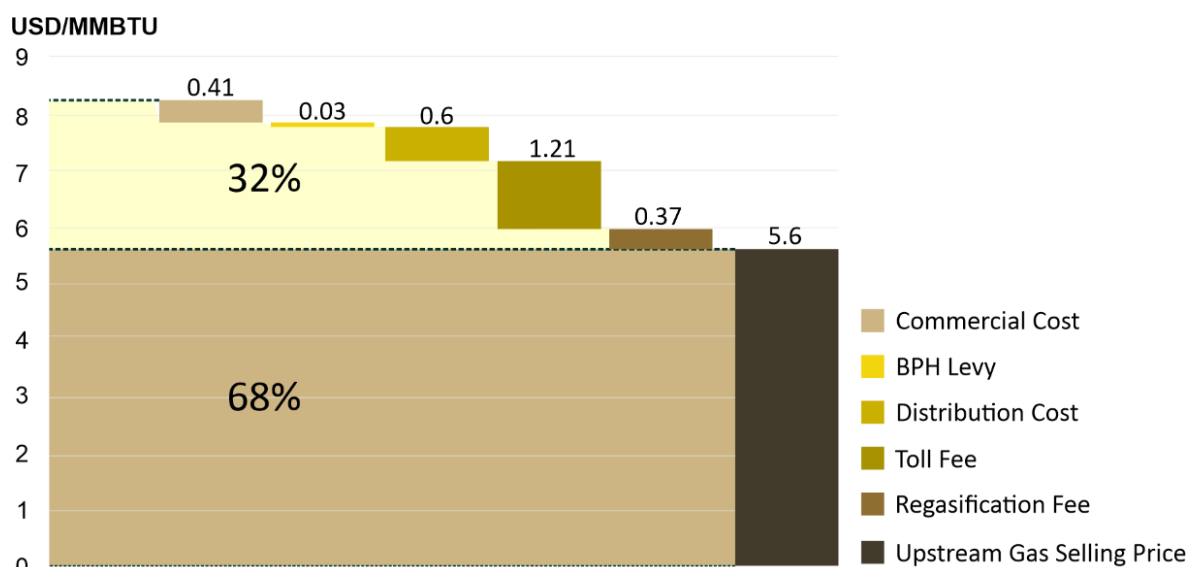


Figure 3 Indonesia's natural gas price structure (MEMR, 2020)

<sup>4</sup> CNN Indonesia. [Kontrak Migas Baru Berbasis Blok, Cost Recovery Bisa Bengkak](#). 23 August 2018

However, implementing the tax loss carryforward for non-tax revenue should be further explored and coordinated with the respective government agency.

**B. Midstream Price Adjustment**

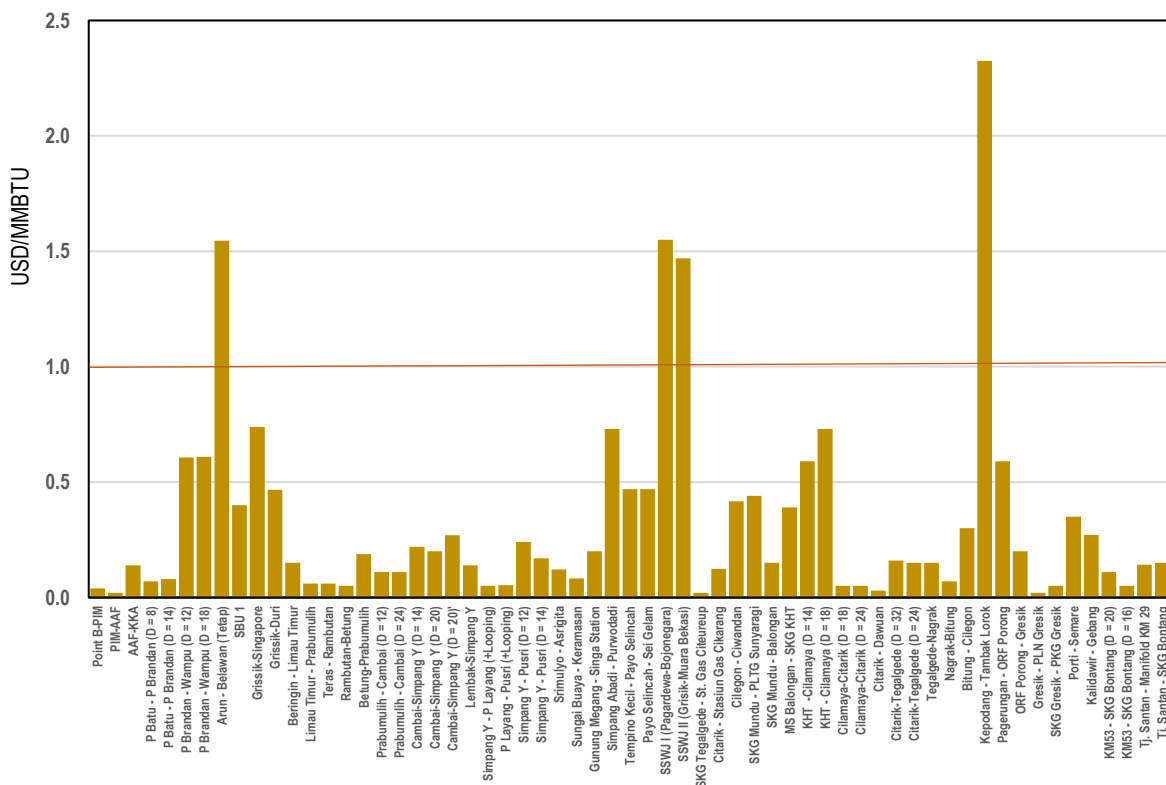
The MEMR Regulation No. 8/2020 suggests an adjustment of the price of natural gas transportation from KKKS to the end-user/industry. In the MEMR decree No. 89/2020, the new natural gas transportation price reaches 2.23 USD/MMBTU at the highest level. The transportation price includes not only toll fee but also liquefaction cost, compression cost, LNG transportation cost, CNG transportation cost, storage cost, regasification cost, commercial cost, and business margin. However, toll fee has the largest share in transportation cost, see **Figure 3**.

Two measures are proposed to adjust the midstream price: 1). toll fee adjustment in selected pipelines and 2). a fair incentive provision for the midstream company.

**B.1 Toll Fee Adjustment**

There are important considerations in adjusting midstream natural gas prices. The first consideration is which pipelines should be prioritized. According to BPH Migas data (shown in **Figure 4**), some open-access pipelines, such as Arun-Belawan, SSWJ I, SSWJ II, and Kepodang-Tambak Lorok, have a toll fee above 1 USD/MMBTU. So, a natural gas price adjustment should be prioritized on those pipeline.

Meanwhile, the new regulated natural gas price implementation should have little to no impact for



**Figure 4** Transmission and distribution pipeline toll fee (MEMR, 2020)



other open-access pipelines whose toll fees below USD 1/MMBTU,

The second consideration is that most pipelines are owned, operated, and developed by state-owned companies (SOCs), namely PT PGN and PT Pertamina (Figure 5). So, midstream natural gas price adjustment must be taken carefully to avoid both SOCs' financial disruption and revenue loss. Without compensation or incentive to their business, a drop of SOCs' revenue could hamper the development of SOCs' business and expansion of new natural gas infrastructure.

**B.2 Fair Incentive Mechanism**

A reduction of natural gas transportation prices will eventually drop the midstream company's revenue and impact its financial condition. The losses will be worse if the new set price is below the economical price. Thus, compensation would be needed to cover the potential losses from the new regulated natural gas price policy implementation.

Compensation or incentive for natural gas transportation business entities has been regulated

in the MEMR Regulation No. 8/2020. The MEMR will set the incentive through a MEMR decree. However, until the writing of this report (Q4 2020), the MEMR decree on the incentive mechanism has not been issued. A fair incentive mechanism is required to make sure that the new regulated natural gas price will not impact the company's future investment projects, especially in developing future natural gas infrastructures.

**C. End-User Evaluation**

Based on the MEMR Regulation No. 8/2020, an industry should enclose economic feasibility and added value potential in its proposal to get the new regulated natural gas price. The MoI is responsible for conducting an administrative, economic, and technical evaluation of the proposal before recommending the MEMR.

The MEMR Decree No. 89/2020 states that the industry has obligations to utilize the natural gas based on the specific volume, report its performance to the MoI, and fulfill its financial obligation to the GoI, including taxation. By failing its obligation, the

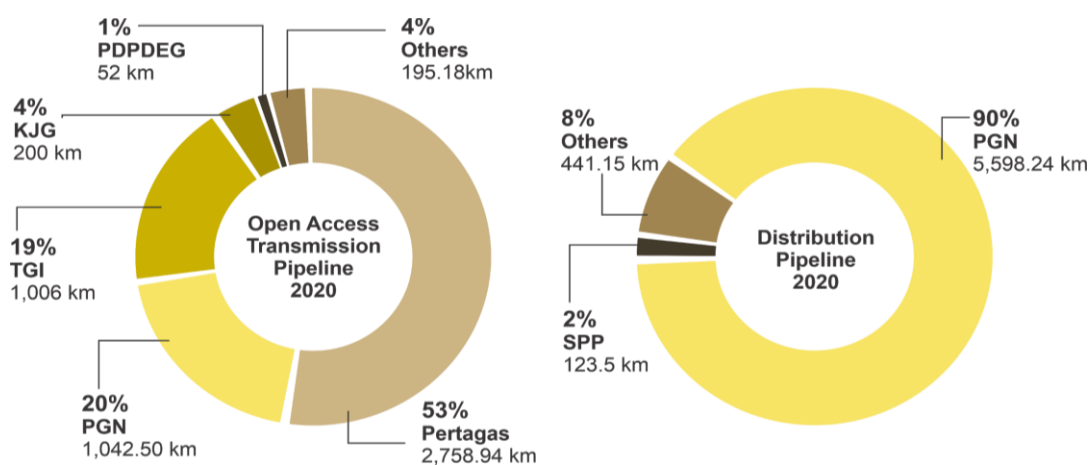


Figure 5 Natural gas transmission and distribution pipeline lengths and ownerships (BPH Migas, 2020)

Gol could reassess the natural gas price allocated for the industry and punish the industry with an administrative penalty.

A clear assessment scheme is essential, not only during the proposal phase but also after the implementation. We provide two important assessments that are required during the implementation of the policy: 1). industry performance assessment, and 2). lag time assessment.

### ***C.1 Industry's Performance Assessments***

The MoI should make a thorough and transparent evaluation of the industry's new regulated natural gas price proposal. The evaluation of the proposal should have a realistic and economically viable added value. The evaluation will be a basis for MEMR to approve the new regulated natural gas price for the industry.

Moreover, the evaluation process is required in the proposal process and after the industry is granted the new regulated natural gas price. The MoI should establish methods and parameters to evaluate the improvement of the industry's performance. The achievement of the industry's proposed added value should be regularly evaluated. Evaluation parameters include tax increase, added-value increase, production capacity increase, new investment, and new employment. The industry should also maintain its efficiency to be competitive.

The evaluation is crucial to ensure the Gol will benefit from the new regulated natural gas price adjustment.

Without a proper evaluation, awarding a new regulated natural gas price to the industry will not be effective and potentially misused.

### ***C.2 Lag Time Assessment***

The industry's revenue increase will only come after some time (lag time) from its initial implementation. On the other side, the Gol needs to allocate an upfront budget to compensate for the loss of the upstream and midstream natural gas industry.

Taking the case of the US's shale gas booming, the abundant supply, and the low natural gas price increase the industry's investment and production volume in an instance. Meanwhile, the trade balance surplus occurred several years after.

The American Chemistry Council report shows an increase in the chemical industry's volume index of production and export in 2009, right after the natural gas price fell (American Chemistry Council, 2013). However, the big leap was expected to occur after five years when the growth of chemistry products exports outpaces the growth of imports. It removed the trade deficit that had been suffered by the industry in the last decade. It means five years is needed for the US to reap the reward from low shale gas price.

In Indonesia, the new regulated gas price is not as low as the current US industrial gas price, at 3.16 USD/MMBTU (EIA, 2020). Considering the higher gas price in Indonesia, the production growth from gas-user industries is expected to be at a slower pace than in the US.

In today's landscape, the challenge to increase the industry's production is also worsened with the COVID-19 pandemic that stresses most of the business sectors and slows the global economic growth.

Thus, a careful assessment is required to calculate the lag time between the initial compensation allocation and the start of Indonesia's industry growth. The importance of conducting the lag time assessment is because the GoI must allocate a significant amount of the national budget for the compensation.

Also, the lag time assessment is essential to evaluate the success of the implementation. If the industry growth is longer than the GoI's prediction, GoI should reevaluate the implementation scheme to figure out the regulation issue.

## Conclusion

The objective of the GoI to regulate an affordable natural gas price through MEMR Regulation No. 8/2020 undoubtedly benefit the industrial sector. However, the regulation should be carefully implemented and monitored to prevent revenue loss in the natural gas business entities and avoid underperforming gas users/industries.

The disruption in the natural gas entities will put a burden on the natural gas business. If the issue persists, the implementation of MEMR Regulation No. 8/2020 will not be as effective as expected.

The present findings confirm that several issues to be further evaluated to guarantee the success of the

new natural gas implementation and optimize the benefit obtained.

In summary, we argue that there are three main issues in implementing the new regulated natural gas price. First, the compensation limit for the upstream natural gas entities is problematic for KKKS, whose annual loss is higher than the annual government take. Second, a detailed incentive mechanism for natural gas transmission and distribution companies is unavailable. And third, the evaluation scheme on the industry's performance remains unclear.

This report also provides several recommendations to tackle the issues presented in the previous paragraph, as follows:

- (1) Relaxing ring-fencing regulation, especially for POD-based ring-fencing, allows the government to take two different PODs to be merged for the GoI compensation calculation.
- (2) Implementing PNBP's loss carry forward up to 10 years to compensate for the residual losses that yet to be covered due to the limitation of the government take in a year.
- (3) Assessing the reduction of toll fee as it is the largest portion of the natural gas transportation cost.
- (4) Creating a fair incentives mechanism for midstream companies to compensate for their losses and ensure their business sustainability.
- (5) Developing a post-evaluation scheme for gas-user/industry to assess the regulation's impact and avoid the underperforming industry.
- (6) Assessing lag time, between the start of new regulated natural gas price implementation and

industry's growth, as a reference for national budget allocation and industry's performance evaluation. The assessment should also include the COVID-19 impact on the industry's growth and the required time to recover from the economic crisis.

The GoI should also see the possibility of shifting the current scheme from the price reduction in the upstream and midstream industry to natural gas price subsidy to the end-users directly.

The budget could be allocated from the government to take in the upstream industry. In the current scheme, the government take in the upstream natural gas industries has been reduced to lower the natural gas price, which makes the government revenue drop significantly. Meanwhile, rather than being used to compensate the contractors' revenue loss, the government take could be allocated to provide a direct price subsidy to natural gas end-users. Then, GoI and KKKS could go back to the initial contract agreement.

The proposed subsidy scheme releases the mandatory for upstream & midstream companies to reduce their natural gas selling prices. Thus, it will eliminate the disruptions and price adjustment complexity in the upstream & midstream natural gas companies while still providing affordable new regulated natural gas prices to end-users. However, further assessment should be conducted to assure the government's current and future revenues from the upstream & midstream natural gas industries are sufficient to cover the direct price subsidy.

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