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Digitalization for Data Liberation

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SUMMARY

The Government of Indonesia governs the disclosure of upstream oil and gas data by issuing Regulation No. 29 of 2017. Contractors have to propose permits to the government in order to disclose their data to investors. Although the Government meant to boost investment by issuing the regulation, processes to get the permit can take some times.

The paper is organized as follows: After the introduction, the second section gives a brief overview about process that has been established to propose the disclosure of upstream oil and gas data in Indonesia for investment purpose. The third part of the paper promising a new concept policy for the Government of Indonesia in order to improve efficiency for accessing upstream oil and gas data. In other country such as, United States of America, Canada and Mexico Disclosing oil and gas data generally can be transferred by transfer agreement. Beside that Albania have the same system with Indonesia. In section four we describe advantages and disadvantages about our new concept policy compare to Indonesia existing policy that roles the disclosure of upstream oil and gas data.



Introduction

The Government of Indonesia governs the disclosure of upstream oil and gas data by issuing Regulation No. 29 of 2017. Contractors have to propose permits to the government in order to disclose their data to investors. Although the Government meant to boost investment by issuing the new regulation, processes to get the permit can take some times.

Theory

In 2006, the Government of Indonesia issued Minister of Energy and Mineral Resources Regulation No. 27 (“Ministerial Regulation No.27/2006”). The regulation regulates the Management and Utilization of Oil and Gas Data. The regulation explains that Data are all facts, instructions, indications and information in the form of written, numerical (digital), images (analog) magnetic media, documents, rock samples, fluids and other forms obtained from the results of General Survey, Exploration and Oil and Gas Exploitation.

Data Classification divide by properties:

- General data is data concerning the identification and geographical location of potential, reserves and oil and gas wells and oil and gas production
- Basic Data is data concerning the description or magnitude of the results of records or records from geological, geophysical, geochemical investigations, drilling and production activities.
- Processed Data is data obtained from the analysis and evaluation of Basic Data
- Interpretation Data is data obtained from the interpretation of Basic Data and / or Processed Data

Data Classification divide by the confidentiality:

- Open, consisting of General Data, Basic Data (acquisition), Data Processing and Data Interpretation that goes through a period of confidentiality.
- Closed. Data that is still confidential, Processed Data, Interpretation, which is bound by the contract is still confidential.

Regulations

When the Ministerial No.27/2006 applied, oil and gas data in Indonesia are centrally managed by the Government and closed to investors. Investors must purchase the data to access it. The procedures that need to be carried out by investors to be able to access the data are quite complicated, so that it appears that access to the data is limited. The existing data was not integrated, there was a difference between the catalog and the original data. For subsurface data only from production basins. Data interpretation results mostly use traditional exploration concepts and use old technology.

In 2019, the Government of Indonesia issued Minister of Energy and Mineral Resources Regulation No. 7 (“Ministerial Regulation No.7/2019”). Those Ministerial is replacing the Ministerial Regulation No.27/2006. Some of the substance development in this new regulation is data availability, data access data openness, data processing and perspective on the data.

In the previous regulation, the data availability was only from exploration and exploitation activities. Exploration and exploitation activities can only be carried out by companies that have signed Cooperation Contracts with the Government of Indonesia. Meanwhile, this new one regulates data obtained from Data Exploration & Exploitation, General Survey of Business Entities, General Survey of National Budget (APBN), Joint Study Data, Commitment of Certain Work in Open Areas, Data Processing Activities.

The data is open and closed. The APBN General Survey is open data. Joint Study Data is open if the Working Area auction does not have a winner or the company resigns, and is closed if it remains bound in the Cooperation Contract. Data from the Data Processing is open. KKP data in the Open Area will be open after 12 months of work is carried out.

Indonesia’s Government absolutely owned of General Data, Basic Data, Processed Data, Interpretation Data that have passed the period of confidentiality. General and Basic Data can be accessed by anyone. Whereas Processed Data and Interpretation Data can only be accessed through Membership. This



membership can be obtained by registering as a member of the Indonesian Government through the Indonesian Government Information Data Center ("Pusdatin ESDM").

Results

Upstream oil and gas exploration and exploitation data are at the substance of every resource discovery and at the core of every hydrocarbon’s field development. Accessing data that has already been acquired by previous contractors is a key to reducing risk in exploration and production, which are high risk, exploration in new play for long term activities. Being able to build on existing data better focuses future efforts towards identifying the sub-surface’s image. Waiting on making a permit would delay the development of oil and gas field. With new investors, they will be able to explore new areas or new play in the production basin.

There was a new discovery in the South Sumatra Basin of ± 2 BCFG in 2019 after a European oil and gas company conducted exploration activities in Indonesia since the start of a new era of data utilization. In the same year, oil and gas companies from China also signed a Cooperation Contract with the Government of Indonesia. In an effort to improve the status of resources to become proven resources, a massive exploration drilling program is needed. Based on the results of geological and subsurface geophysics studies, Indonesia still holds potentials that are widely distributed from west to east.

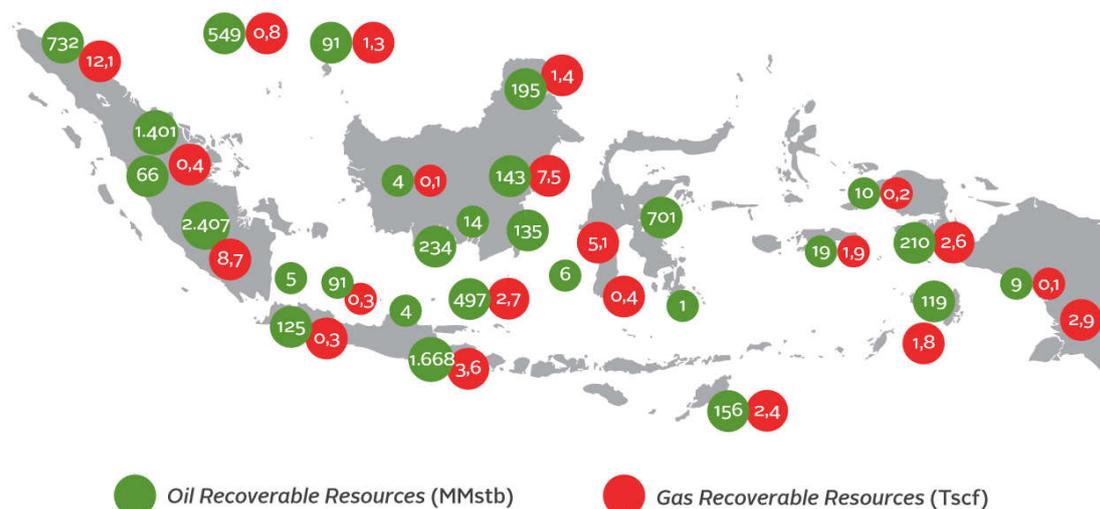


Figure 1 Indonesia Recoverable Resources.

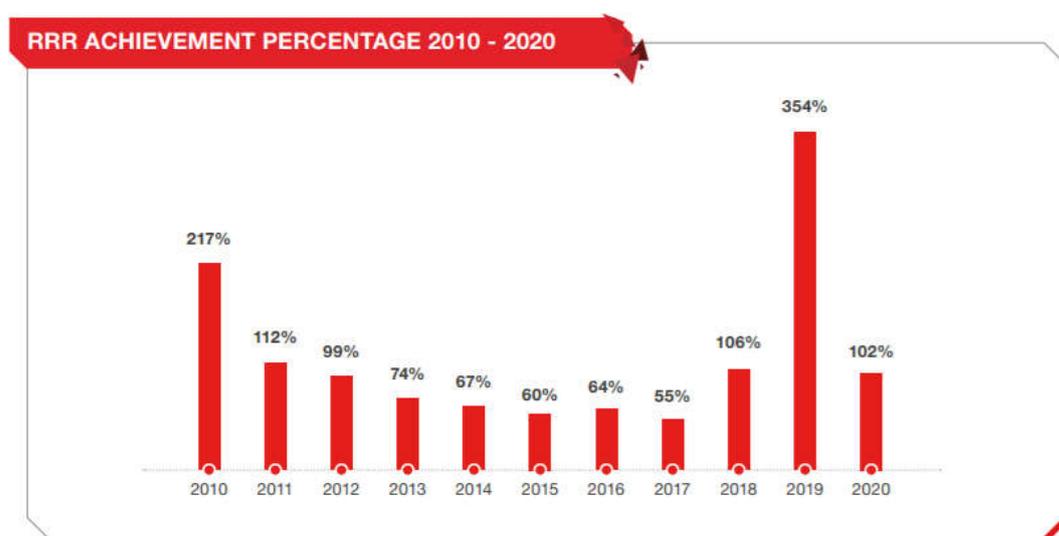


Figure2 Replacement Reserve Ratio Achievement Percentage 2010-2020.



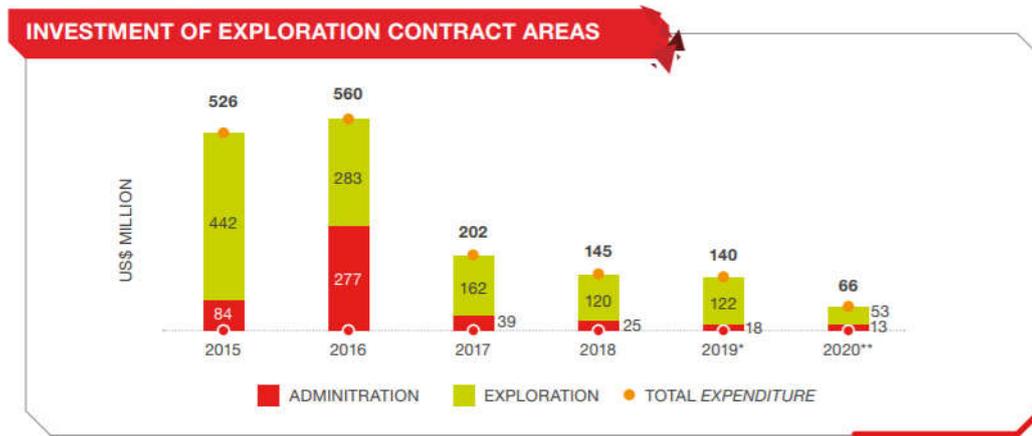


Figure 3 Investment of Exploration Contract Areas.

As an effort to develop the upstream oil and gas industry and also to maintain the availability of energy for future generations, real investment is needed in exploration activities. Based on data for the last six years, investment in the exploration contract areas has experienced a downward trend in the period of 2015 up to 2020. The cumulative value of investment in Exploration CAs in 2020 reached US\$66 million or decreased by 53% compared to the realization in 2019.

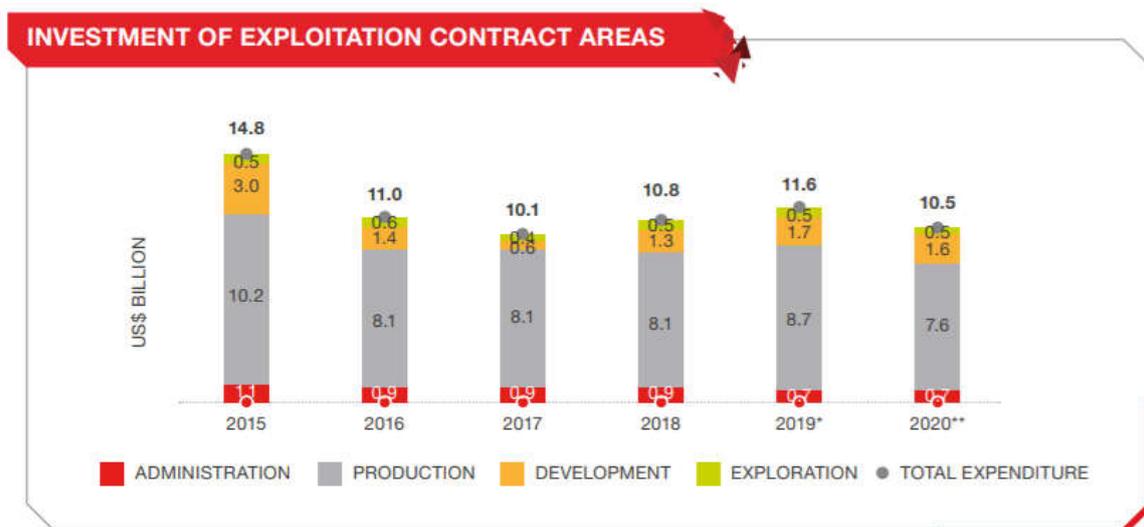


Figure 4 Investment of Exploitation Contract Areas.

The spirit to continue production has increased investment in 2018 up to 2019, but decreased in 2020. If compared in 2019, investment in 2020 decreased by 9.5% or became US\$10.5 billion. With various challenges from a technical point of view as well as the upstream oil and gas business climate, commitment from all parties is urgently needed to jointly maintain a conducive investment climate in Indonesia.

Indonesia’s Ministry of Energy and Mineral Resources issued the Ministerial Regulation No.7/2019 to make investor easier for accessing Data.

The new perspective of disclosed data right now is used as a media to encourage oil and gas exploration and exploitation activities to support the discovery of new reserves. SKK Migas as an institution that assigned by The State to manage upstream oil and gas business activities under a Cooperation Contract provide Data Room for investor who wants to see the general data about the upstream investment opportunity in Indonesia. The simple way to get chances is contact SKK Migas, sign a Confidentiality Letter and then visit GGR Café at SKK Migas Head Office to see Data Room. Currently there are 10 Potential Areas in Indonesia, namely North Sumatra (Mesozoic Play), Central Sumatra (Fracture



Basement Play), South Sumatra (Fracture Basement Play), Tarakan Offshore (Miocene Greater Delta Sandstone Play), Kutei Offshore (Deepwater Play), NE Java-Makassar Strait (Pre-Tertiary Play), Button Offshore (Miocene Build-up Carbonate Play), Northern Papua (Plio-Pleistocene & Miocene Sandstone Play), Akimeugah (Jurassic Sandstone Play).

FORMER REGULATION	NEW REGULATION
<p>How to get the Data: Purchase</p> <p>Data Availability:</p> <ul style="list-style-type: none"> - Exploration - Exploitation <p>Perspective: Government Revenue</p>	<p>How to get the Data: Membership</p> <p>Data Availability:</p> <ul style="list-style-type: none"> - Exploration (Open and Closed Data) - Exploitation (Open and Closed Data) - APBN Surveys (Open Data) - Joint Study (Closed Data) - Data Processing (Open Data) - Firm Working Commitment in Open Area (Closed Data, become Open Data after 12 months) <p>Perspective: Encouraging Investments</p>

Figure 5 Summary between old and new regulation about the Data disclosure.

The Next Trends

With the increasing awareness of the world community about reducing carbon in the atmosphere, the Government of Indonesia as one of the supporters of this idea is also actively participating in studies and research related to this in the future. In the not too distant future, if data from the upstream oil and gas industry is well integrated and has broad accessibility to industry players, it is hoped that this program will support this program.

This data is expected to be open to studies and research related to analytical data methods and artificial intelligence which are also current trends and will be widely used in various industries, especially those related to the fossil energy industry where the challenges ahead are not only how to explore and produce hydrocarbons. But also how to remove or reduce carbon in the atmosphere safely and economically, one of which is the CUS/CCUS method initiative. Where Indonesia has various types of basins, both in terms of geology and aspects of maturity. So that the opportunity to realize ideas is more open and extraordinary.

Conclusions

The disclosing of upstream oil and gas data in Indonesia for farm in/out purposes is easier. Indonesia's Ministry of Energy and Mineral Resources issued Regulation No. 7 of 2019 about the Management and Utilization of Indonesian Oil and Gas Data in order to make investor knew faster and clear about the data that they need. State of Indonesia's Government absolutely owned of all Data, whereas can only be accessed through Membership. This membership can be obtained by registering Pusdatin ESDM. The simple way to access general data is visit Data Room at SKK Migas Head Office. More investors can access data more chances result in the developing oil and gas field. Integrated data can be used and open for investors to be accessed in carbon reduction.

References

Indonesia's Ministry of Energy and Mineral Resources issued Regulation No. 27 of 2006 about the Management and Utilization of Indonesian Oil and Gas Data.

Indonesia's Ministry of Energy and Mineral Resources issued Regulation No. 7 of 2019 about the Management and Utilization of Indonesian Oil and Gas Data.

Lubiantara, B. (2012). *Ekonomi Migas*, PT Gramedia Widiasarana Indonesia: Jakarta, Indonesia.

SKK Migas Annual Report 2018. (2018) Jakarta, Indonesia

SKK Migas Annual Report 2019. (2019) Jakarta, Indonesia

SKK Migas Annual Report 2020. (2020) Jakarta, Indonesia

