

## Policy Concept and Designs of Oil and Gas Governance in Indonesia's Oil Companies

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### ABSTRACT

Indonesia's oil and gas governance has been specified in certain laws. The first oil and gas law was Emergency Law No. 44 of 1960. This law was changed to Law No. 8 of 1971 which gave a dual function, namely to Pertamina National Oil Company (NOC), as an operator and regulator. Meanwhile, the function of policy making was carried out by the government. These two functions are known as "two feet." Furthermore, with the promulgation of the Oil and Gas Law No. 22 of 2001, there was a separation of regulatory functions by Pertamina and giving them to state institutions known as BP Migas. The agency was later converted into two different institutions, SKK Migas for regulating upstream oil and gas and BPH Migas for downstream regulation. These functions are known as 'three feet'. However, the Oil and Gas Law No. 22 of 2001 received a lot of criticism, because this law was considered too liberal and put Pertamina as a NOC to compete openly with the International Oil Company (IOC) which was considered to have more good advantages in technology, capital, and risk management. The existing Oil and Gas Law has caused prolonged stagnation in the national oil and gas industry, and reduced the performance of this strategic industry in terms of lifting, exploration, exploitation and oil production. This study is intended to provide a description regarding the various design concepts of oil and gas law governance by referring to the oil and gas management and performance models in various countries and IOC. Furthermore, this study empirically offers a comparison of the NOC model in managing oil and gas, and the advantages and disadvantages of institutional selection over the oil and gas administration

**Keyword:** Energy Policy, Oil Sector Performance, National Oil Company, Governance

**JEL Classifications:** Q43, O13, O38

### 1. INTRODUCTION

Indonesia is very dependent on oil and gas for the continuity of a growing national economy and industry (Eifert, 2003; Ardiansyah et al., 2012). Pertamina's data for 2013 records the total National Need for Oil is 77.00 million KL, while the national refinery production capacity is 38.10 million KL. So, in 2013, there was a deficit of around 38.9 million KL, or around 51% (Hardadi, 2015). The gap between demand and oil production capacity is predicted to increase along with increasing national demand and development. This condition has worsened with the fact that petroleum reserves and production have continued to decline since the peak of oil production in 1995 which reached 1.6 million barrels per day (bpd). Assuming there is no discovery of new petroleum reserves, the age

of Indonesia's petroleum is only about 12 years based on proven reserves. Furthermore, the current condition of Indonesia's oil reserves is not like oil reserves in the 1970s which made Indonesia experience a boom in 1977-2000 with production capacity reaching 1.6 million MBOPD. However, after that Indonesia's production level tended to decline until Indonesia opted out of the Organization of Petroleum Exporting Countries with status suspended since January 2009 (Korte, 2011). The high level of dependence on petroleum shows that energy in the form of petroleum is vital and revamping oil governance into urgent matter to be done to create national energy sovereignty (Jaffe, 2004; Gboyega et al., 2011).

The regulation governing oil management is Law No. 22 of 2001 concerning oil and gas. In addition to being a legal umbrella in the

## 2. REALITY OF POLICY AND CONSTITUTIONAL CONSTRUCTION OF OIL AND GAS LAW

management of oil and gas, this Law also regulates gas management (Agustina et al., 2008). During the 15 years since the announcement on November 23, 2001, the Oil and Gas Law has been tested 4 times by the Constitutional Court because it contains a clause that is considered contrary to the Constitution of the Republic of Indonesia (1945 Constitution) related to article 33 paragraph (2) and paragraph (3) from the 1945 Constitution. One case was declared unacceptable due to legal status. In three judicial reviews, there were at least 16 articles of the Law which were canceled by the Constitutional Court, namely through the Decision of the Constitutional Court number 002/PUU-I/2003/as many as three (3). Broadly speaking, the material that was canceled through the decision of the Constitutional Court was related to a number of key issues. First, the institutional problems formed in it, which make the power of the Government become divided and ineffective. This has an impact on overlapping authority between these institutions. Some related institutions in the Oil and Gas Law are the Ministry of Energy and Mineral Resources, the Executive Agency for Oil and Gas (BP Migas), Downstream Regulatory Activities (BPH Migas) and Pertamina. This problem becomes more important when BP Migas is declared constitutional by the Constitutional Court. BP Migas's position, after the Constitutional Court's decision was replaced by the Working Unit for Certain Business Activities of Upstream Oil and Gas (SKK Migas) The presence of SKK oil and gas, but felt by many parties was still not effective due to the decline in domestic oil lifting (Parlementaria, 2015).

Second, questions about contracts in the Oil and Gas Law. The contract refers to the Oil and Gas Law as if it has immunity to changes in legislation that occurred in Indonesia. The implications of these changes to existing laws cannot affect the contracts that have occurred. Consequently, the Government must wait for the contract period to end to be able to make adjustments. This is a question about the withdrawal of the same employment contract as long as the Oil and Gas Law mandate is a maximum of 30 years and can be extended by a maximum of 20 years contract consisting of periods of exploration or exploitation. Referring to this condition, oil regulation and gas governance in Indonesia will have consequences and adaptations related to changes in reserves, the availability of oil and gas supply in Indonesia and the cancellation of some provisions of the Oil and Gas Law No. 22 of 2001 by the Constitutional Court.

Therefore, the urgent matter for the immediate renewal of the oil and gas law made through No. 22 of 2001. As a first step towards renewing the oil and gas law, it refers to article 19 of Law No. 12 of 2011 concerning the establishment of Regulations related to the formulation of oil and gas governance laws. This paper is intended to provide a conception of the design of oil and gas governance through a new constitutional law on oil and gas by using empirical data on the management model of oil and gas in several oil-producing countries and the performance of the world's largest oil and gas company (Chandranegara, 2017). This paper is expected to be a blueprint for Indonesia's oil and gas arrangements in the future, especially in terms of increasing lifting capabilities, exploration and exploitation of oil and gas by national companies and its policy concepts that can fulfill a sense of justice for all oil and gas players in the market.

The position of the Constitution as a basic law provides legal consequences that any material regulations that are under it may not conflict with the material contained in the Constitution. The constitution that defines the outline, direction, content and form of law will be applied in Indonesia, including the direction of the legal and political policies of oil and gas in Indonesia. The amendment was made in 2001 to Article 33 of the Constitution containing two additional articles and chapter titles, which are located in chapter XIV of the Torso Constitution with the title of chapter national economy and social welfare with a burden of 5 verses. According to Gie (2008), Amendment to Article 33 of the Constitution deals with liberalization in the sector of natural resource management. People who desperately need to be forced to pay high prices, there is no longer an obligation in this country to have a Government in a joint tax instrument. This happens because of changes in legal orientation where the perfect developing market mechanism is through liberalization, privatization and globalization. However, this slowly marginalizes the elaboration of ideas of nationalism and patriotism. Prosperity and prosperity that are dreamed of are far from expectations. Liberalization and market mechanisms have been placed so far that they are considered to violate article 33 of the 1945 constitution. The fever of liberalization that has become a product of legislation in Indonesia is the implementation of a neoliberal economy. The agenda, which began in the mid-1980 s, included liberalization, a package of deregulation policies, and de-bureaucratization (Patunru and Basri, 2012). However, its implementation, massively, the momentum was discovered after Indonesia plunged into a severe economic crisis in 1998 and invited institutions such as the IMF to restore the national economy (Chandranegara, 2017).

As a condition for loan disbursement, the Government of Indonesia is obliged to implement a structural adjustment program through the signing of a Letter of Intent (LOI), which is one of the points in the strategic sector liberalization agreement in the field of economic regulation and natural resources (Fischer, 1998; Robison and Rosser, 1998). The most visible result is when a number of laws closely related to article 33 want the constitution to be ratified in the plenary session of parliament during the transition to democracy. Several Council members from several factions sent objections (*minderheidsnota*), on the grounds of substance a number of laws were too leaning on liberals and against the Constitution, especially article 33 which regulates national economic issues. Even though there is material accompanying it in a number of minders, the law applies as a law since it was ratified by the House of Representatives and officially applied when it was signed by the President. By law, *minderheidsnota* will not prevent or cancel the agreement passed by the quorum law which was revoked along with the *minderheidsnota* and then submit the judicial review by several groups to the Constitutional Court. From a number of laws, only one finally canceled the Constitutional Court, namely Law Number 20 of 2002 concerning Electricity.

### 3. DESIGNS OF OIL AND GAS LEGAL GOVERNANCE

Tjakrawerdaja (2008) states that oil and gas management according to Article 33 of the Constitution contains seven constitutional characteristics, namely: first, the economy aims to achieve prosperity together with everyone, this is explicitly explained in the explanation of article 33 of the 1945 constitution second, public participation in ownership, production process and enjoy the results. This is in accordance with the formula contained in article 33 paragraph (1) and paragraph (4) of the Constitution. Third, in accordance with the principles of Article 33 paragraph (4) of the Constitution, namely efficiency of Justice, the economy needs to be run with the use of market mechanisms that are based on fair competition and the role and authority of the State to intervene in the event of market failure (Handayani et al., 2017). Fourth, the role of the State must be guaranteed, as mandated by article 33 paragraph (1) and paragraph (3) of the Constitution, especially in terms of national economic planning, in establishing and enforcing the implementation of laws, and in implementing service programs and community empowerment, liberation taxes, subsidies and more (Dartanto, 2013; Sasana et al., 2017; Kurniawan, 2017). Fifth, state-owned enterprise (SOES) is one of the pillars of the national economy which is formed to control the branches of economic production which are important and which regulate the survival of the people. This is clearly stated in Article 33 paragraph (2) of the Constitution. Sixth, cooperatives as a pillar of the people's economic pillar must be realized in a spirit of togetherness with SOES and private businesses, as well as the people's economy.

Seventh, the national economy must be the embodiment of partnership agreements between cooperatives, SOESs, and the private sector. This principle is stated in article 33 paragraph (1) of the Constitution. The constitutional characteristics that must be translated into the entire set of regulations for oil and gas management. The prosperity of most people is the goal of every management and use of natural resources. These goals are seen as interests that cannot be ignored, because in addition to the constitutional mandate, they are also coveted by every citizen and become the responsibility of the State as a consequence of the rights of the country itself. Therefore, each concession and use of natural resources are adjusted to the goal (doelmatig) (Bakhri, 2013).

The nature of compliance with business objectives and the use of natural resources is absolute and cannot be changed (Wirawan, 2018). However, that does not mean that it is a legal goal. The purpose of the law is, among other things, the existence of legal certainty regarding the absolute nature and cannot be changed (Hakim, 2017). In this sense, legal compliance (rehtmatigheid) is placed on concessions and the use of natural resources for the majority of the people's prosperity. The prosperity of the people is the ideal of a welfare state that must be manifested by the State and the Government of Indonesia. The rights controlled by the State over the Earth, water and natural resources contained in them are actually protection and guarantees will be realized the magnitude of the people's prosperity. But when the right to control the State shifts from *beheersdaad* to *eigensdaad*, there is no guarantee that the right to control the State of the use of its natural resources is used for the prosperity of the people (Chandranegara, 2017).

Existing practices in the management of oil and gas in several countries show that it is generally divided into three functions, namely regulation, policy and commercial. The thing that distinguishes it is only on how each country is separated or does not separate the functions. Thurber et al.'s (2011) study from Stanford University on the extent to which function regulation influences the performance of the upstream oil and gas sector illustrates that there are countries that clearly separate the three functions. Countries in this group include, among others, Norway, Nigeria, Algeria, Brazil and Mexico. On the other hand, there are also countries that do not explicitly separate the three functions intended between the commercial functions of the regulatory function, or the functions of policy settings such as Saudi Arabia, Malaysia, Angola, Russia and Venezuela.

One fact found in practice is that commercial functions are always carried out by state-owned oil and natural gas in the form of National Oil Companies (NOCs) (Wolf, 2009; Victor et al., 2011; Liou, 2009). Exceptions are for countries such as Australia, the United States, Canada, United Kingdom and several other developed countries that do not yet have NOC, after previously privatizing. For some developed countries, commercial functions are run by private companies or International Oil Company (IOCs). Thus, it can be concluded that direct involvement in oil and gas exploration and production activities can only be carried out by companies, either NOC or IOC.

The involvement of the Indonesian government in oil and gas exploration and production activities was carried out by Pertamina as Indonesia's NOC. Pertamina's contribution which is relatively stagnant in national oil and gas production when compared to other countries' NOCs is a serious concern for many in Indonesia. Pertamina's role is not too good, even far behind the Malaysian NOC, Petronas (Sulaiman et al., 2011) (Table 1).

Table 1 shows that out 13 of the 15 oil and gas companies with the largest oil reserves are state-owned companies (NOCs). Pertamina is only 44<sup>th</sup>, far behind Petronas as Malaysia's NOC in the twentieth position. From the table it can be concluded that at present the NOC has succeeded in dominating oil reserves. In practice today, the NOC begins to compete competitively with the IOC in controlling the country's oil reserves. About 77% of the world's total oil reserves have been controlled by NOCS from various countries (Minulya, 2013; Waelde, 2002). That also needs to be done by Pertamina as an Indonesian NOC, which is currently still very inferior in its own country. The inferior impression of the Indonesian NOC was caused by a problem forming the fact that Pertamina contributed very little when compared to other countries' NOC contributions. Referring to the production volume capacity per day, Pertamina does not even enter the 25<sup>th</sup> rank in the world of oil and gas. In addition, Petronas has also managed to prove itself the best in Southeast Asia with the most aggressive companies in conducting exploration and discovery of new oil and gas reserves in Southeast Asia. To provide a clearer picture, Table 2 describes information about 25 companies with production volume capacity per day (Table 2).

**Table 1: Oil and gas company rankings**

Ranking	Company	Country	State ownership	Backup (million barrels)
1	Saudi Aramco	Saudi Arabia	100	264.200
2	NIOC	Iran	100	138.400
3	INOC	Iraq	100	115.000
4	KPC	Kuwait	100	101.500
5	PDVSA	Venezuela	100	99.377
6	ADNOC	United Arab Emirates (UAE)	100	52.800
7	LNOC	Libya	100	30.700
8	CNPC	China	100	22.447
9	NNPC	Nigeria	100	21.187
10	Rosneft	Russia	75	17.513
11	Lukoil	Russia	-	12.572
12	Pemex	Mexico	100	12.187
13	Sonatrach	Algeria	100	11.400
14	ExxonMobil	USA	-	11.074
15	QP	Qatar	100	10.624
17	Petrobras	Brazil	56	9.581
18	Gazprom	Russia	50	9.195
19	Surgutneftegas	Russia	-	7.929
20	Petronas	Malaysia	100	7.876
21	Chevron	USA	-	7.523
22	ConocoPhilips	USA	-	6.541
25	Total	France	-	5.778
26	Shell	UK/the Netherlands	-	4.887
29	ONGC	India	74	3.607
30	PDO	Oman	60	3.360
32	Eni	Italy	30	3.269
43	CNOOC	China	64	1.564
44	Pertamina	Indonesia	100	1.505

Source: Petroleum intelligence weekly (PIW), special supplement issue, 2008

**Table 2: Oil company rankings based on production volume capacity per day**

Ranking	Company	Country	Production (million bpd)
1	Saudi Aramco	Saudi Arabia	12.5
2	Gazprom	Russia	9.7
3	NIOC	Iran	6.4
4	ExxonMobil	USA	5.3
5	PetroChina	China	4.4
6	BP	UK	4.1
7	Shell	Netherlands	3.9
8	Pemex	Mexico	3.6
9	Chevron	USA	3.5
10	KPC	Kuwait	3.2
11	ADNOC	UAE	2.9
12	Sonatrach	Algeria	2.7
13	Total	France	2.7
14	Petrobras	Brazil	2.7
15	Rosneft	Russia	2.6
16	INOC	Iraq	2.3
17	QP	Qatar	2.3
18	Lukoil	Russia	2.2
19	Eni	Italy	2.2
20	Equinor	Norway	2.1
21	ConocoPhilips	USA	2
22	PDVSA	Venezuela	1.9
23	Sinopec	China	1.6
24	NNPC	Nigeria	1.4
25	Petronas	Malaysia	1.2
-	Pertamina	Indonesia	0.2

Source: Rapier (2016)

in foreign hands.” Though the existence of a strong NOC is very closely related to energy security in a country. The countries mentioned in Table 2 are countries that have strong energy. This strength is mainly supported by strong NOCS. Countries that are good examples of oil and gas management for Indonesia can refer to the countries listed in the two tables. More specifically, countries that have strong NOCs also include Saudi Arabia, Iran, Iraq, Kuwait, China and Venezuela (Stevens, 2008).

Referring to the results or conclusions of the research conducted by Thurber et al. (2011), specifically for the upstream sector, there are five countries that are considered to have the best performance, namely Norway, Brazil, Saudi Arabia, Angola and Malaysia. In order to develop participation and profits, Pertamina can be given an exploration and exploitation contract as an additional privilege. A pure competition system that places Pertamina in the same position as a private company in the licensing process - as is done in Norway or in Colombia - is unlikely to be suitable with Indonesia's needs because there is a consensus that Pertamina needs support. However, given the need for private investment, there is also no desire to give Pertamina a monopoly on exploration and production as Saudi Arabia, the right decision taken by the state is likely to be based on the question of what kind of benefits (outside monopoly authority) can be used as part of this system (Bria et al., 2016; Dowling and Yap, 2008). In this regard, NOC management in oil and gas can be specified to the uniformed role and the extent to which it has privilege to obtain some incentives (Table 3).

Until now, Pertamina still cannot show its superiority in its own country. The term often used for this is that “oil sovereignty is

In addition, it should also be suggested that Indonesia can consider a kind of “privilege” version. This will provide a wider opportunity

**Table 3: Models of the NOC in the management of oil and gas**

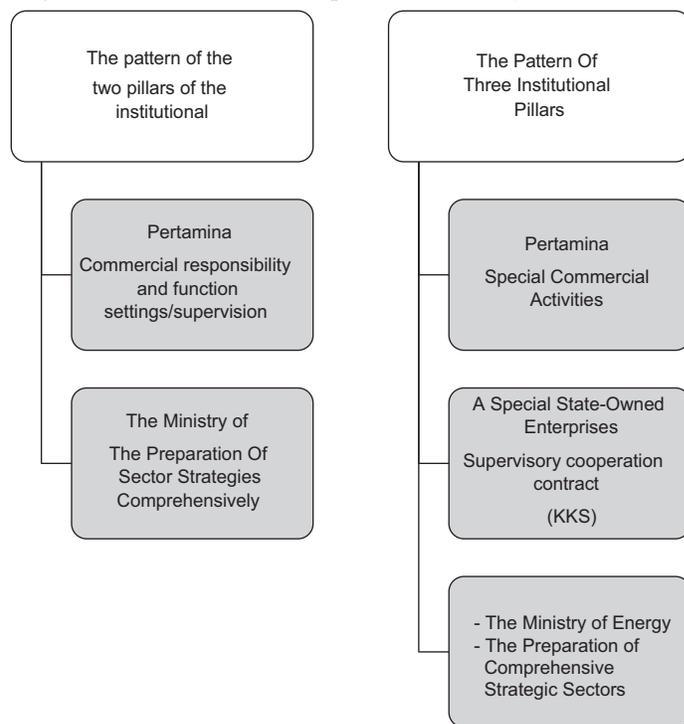
System	Description	Example	Advantage	Losses
Guaranteed role	SOEs have a predetermined or uniform role in each commercial project (for example, operator rights, minimum equity shares, or the right to choose their own partners) or an option to choose roles without restrictions	Malaysia (election partners); Brazil (operators on all projects)	Ensuring commercial opportunities  SOEs are given the power to control projects  Easily making predictions in planning	Lowered incentives for SOEs to improve performance Reducing market pressure for SOEs - which have been given competitiveness
Privilege application	SOEs are given systematic benefits compared to private companies in the licensing process. Through the right to first submit an application, the SOEs is given a project when its offer meets the minimum ceiling. In addition, this right can be done through a bidding process, in which SOEs receive “bonus points” in competition with private companies	Mexico (post-2013), Kazakhstan	To achieve a balance between access to projects and incentives for efficiency by creating profits to increase the possibility of SOEs participation in the project, but without guarantees.	Unpredictable compared to guaranteed role options  There is still little risk of weakening incentives or preventing private investment (when other companies feel the system is unclear or unfair)

for Pertamina to develop various projects than it has in the past few years and will provide incentives to become a more dynamic and competitive commercial company. This choice will also reduce the risk of private investment or create inefficiencies by mandating Pertamina to play a dominant role in each project. Indonesia needs to decide which institutions are principally responsible for regulating and supervising upstream activities. At present, there are two main choices, namely giving responsibility for managing Pertamina. This approach is called the “two-pillar approach” in which Pertamina plays a day-to-day oversight and implementation role, under the supervision of the Ministry of Energy and Mineral Resources. Another possible approach is referred to as “three pillar approach” to mandate the responsibility of a SOES, which will take over many functions previously carried out by BP Oil and Gas (Figure 1).

In two-pillar approach, oil and gas exploration and production is conducted by the NOC as the main regulator. Some countries are considered to successful in implementing this approach. Malaysia successfully adopts this approach with some of the challenges of accountability, while Angola is good in technical performance, but low accountability. An exception is given to Venezuela with its failure in applying this approach. The advantage of this approach lies in its ability to facilitate the development and implementation of a strong and unified national vision for the sector, to focus and strengthen resources and skills, and to facilitate efficient administration. Meanwhile, its main weaknesses are the possibility of conflict of interest. This happens while SOEs set their own national regulations, can be weak enforcement of rules. This approach can weaken incentives to achieve commercial performance of SOEs. Lastly, the SOES combination can and disrupt the attention of its commercial agenda.

Moreover, in three pillars approach, special SOESs, besides NOC and the government, took over many functions previously carried out by the oil and gas regulator. This approach is successfully applied by Norway and Colombia, while Brazil’s success is moderate with technical success in the long term, but then got into trouble with corruption scandal. The advantage of this approach is reducing the risk of conflict of interest, increasing the possibility of consistent

**Figure 1: Model of institutional patterns in oil and gas administration**



enforcement, and simplifying SOEs to focus specifically on commercial targets. It is also a unique treatment under the two-pillar model. However, it has some risk of losing focus on human resources and on financial performance, causing confusion and efficiency when the roles of each institution are different. Empirically, there are not many examples of “special SOEs” to learn, with special examples of Petoro in Norway and PPSA in Brazil. Various versions of these two systems have been institutionalized in other oil producing countries with mixed results (Table 4).

Global research conducted by Natural Resource Governance Institute (2017) suggests that the two pillars of the approach tend to be more successful in countries that (1) have a single political decision-making system (such as in Malaysia); and/or (2) have a

**Table 4: Advantages and disadvantages of oil and gas institutional administration**

System	Definition	Example	Advantage	Losses
Two pillars	Exploration and production by the NOC as the main regulator	Malaysia, successfully adopted with some of the challenges of accountability); Angola (good technical performance, low accountability); Venezuela (failed)	Facilitate the development and implementation of a strong and unified national vision for the sector Focus and strengthen resources and skills in one institution Facilitate efficient administration	Conflict of interest: While SOEs set their own national regulations, enforcement of rules can be weak Weakening incentives to achieve commercial performance of SOEs The combination of roles can burden SOEs and disrupt the attention of its commercial agenda
Three pillars	As a manager, special SOEs took over many functions previously carried out by the oil and gas regulator	Norway (successful); Colombia (successful); Brazil (varies: Technical success in the long term, but later there was a corruption scandal)	Strengthen SOESs with automatic exclusive decision-making authority Reducing the risk of conflict of interest Increase the possibility of consistent enforcement of rules Simplify SOEs to focus specifically on commercial targets Preferred by private investors who suspect there is unequal treatment under the two-pillar model	Risk of losing focus on human resources and on financial performance Causes confusion and inefficiency when the roles of each institution are different Not many examples of "special SOEs" can be learned. It is only Petro in Norway and PPSA in Brazil

low capacity to manage the oil sector, and therefore the need to consolidate Government resources in one institution. In countries that have strong capacity in the oil sector and have systems to make them more competitive (such as Norway and Colombia), the three pillar systems tend to be more successful.

After deciding questions about Pertamina's State-Owned roles and responsibilities or specifically, the Government must establish a system that gives companies access to the funding needed to carry out their mandates. In addition, the system is run by financing state-owned businesses that require a balanced mechanism. Another implementation is that giving SOE control over parts of public funds that are too large can hurt the incentives of SOEs to carry out efficient performance while reducing state budgets. But on the other hand, when SOESs do not have access to sufficient and predictable funding to be able to carry out their work, it is impossible to effectively implement their commercial strategies. It needs to be recommended as part of Pertamina's role and privileges to be obtained, Indonesian leaders must carry out detailed assessments of company needs and impose commensurate funding. When a country chooses three pillar approach and establishes a Special SOE, it is also necessary to establish a financing mechanism that is commensurate with the level of responsibility and activity of commercial companies. Petro, like in Norway, the limited mandate of state-owned "regulators" is the most logical starting point for this condition (Hathway, 2012). The important thing is that state-owned finances will operate as part of the cycle of financial conditions or as budget entities.

#### 4. CONCLUSION

This study underlines there is a need for the formulation of the most effective and efficient mechanism for the government as a state authority in exploration and exploitation in carrying out roles

that will be carried out directly through Government instruments (Ministry of Mineral Resources or for the formation of non-state institutions from ministries) or the company will partner with the country's oil and natural gas by establishing it as a NOC. In addition, the need for formulating a mechanism for how to be the most effective in designing cooperation with partners (third parties), especially third parties in the form of foreigners, still maintains a Production Sharing Contract mechanism that has been applied for current selection or other more collaborative optimal benefit to the State to be used for the people's prosperity.

Formulation of mechanisms for the use of Participation Interests that are most effective and efficient in designing for producers to reduce the provision that there are areas where local producers may not be able to take overall rights from participating interests, namely 10% unless they cooperate with foreign parties or parties private. As a consequence, the profit from interest participation will not be absorbed by the region because the private sector or foreign parties tend to be profitable. The formulation mechanism is the most effective and efficient way of designing dispute resolution specifically in the oil and oil and gas sector, considering that this important sector category concerns national energy security and concerns the needs of the people.

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