INDONESIA'S ENERGY: REGULATION IN TRANSITION*

By. Eddy Satriya[1]

Abstracts

One of the important steps toward energy sector reform under global economy is the establishment of Independent Regulatory Body (IRB). Following the enactment of new laws in energy sector, Indonesia has recently established separate regulators and executive agency (body) for oil and gas business and power sector. However, having had three new laws i.e. Oil and Gas Law, Electricity Law, and Geothermal Law in place, and running IRBs in a transition period have made regulators "under attack". These are mainly due to unclear government policy to fund the new agencies, lack of socialization, the existence of gray area, problem in independence, incumbent phenomenon, and limited experience of human resources.

In the future, the agencies (BP Migas, BPH Migas, and EMSB) would also face considerable challenges to cope with early stage of decentralization process, delay in finishing up related government regulation, fuzzy Public Service Obligation policy, dualism in supervising state-owned company, and lack of good corporate and good governance practices. Therefore, to improve IRB's contribution in securing the provisions of energy supply for people and maximizing benefit for the economy, all stakeholders are strongly urged to clear up the path for better regulation and coordination. In a short term, it can be achieved by refocusing job description, improving the independence, speeding up market competition, and expediting the issuance of related government regulations in energy sector.

1. INTRODUCTION

Economic change coupled with the advances in new technology, the need to conduct good governance practices, and intensifying pressure to reduce central government role has significantly brought new developments to the provision of public utility and infrastructure in many developing countries. Waves of deregulation, liberalization and privatization started in 1980's have had an effect on decision makers in setting up their industries.

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[1]Author is currently Deputy Director for Energy, at Directorate of Energy, Telecomm, and Informatics, in National Development Planning Agency (BAPPENAS). Email: esatriya@bappenas.go.id. Website: eddysatriya.blogspot.com

Infrastructure sector in Indonesia has also progressed significant reform through the issuance of new regulations. For example, Telecommunication Law No. 36/1999, Oil and Gas Law No. 22/2001, Electricity Law No. 20/2002, Geothermal Law No. 27/2003, and the brand new law on Water Resources No. 7/2004 were all promulgated after the economic crisis in 1998. Main themes of the new laws are improving the quality of services, abolishing monopoly, introducing competition, defining the new role of the government, and improving public-private partnership in infrastructure provision. The newly enacted laws in infrastructure are dominated by regulation in energy sector, reflecting the importance of the sector to the economy.

One of the important steps toward energy sector reform under global economy is the establishment of independent regulatory body (IRB), which is usually separate from existing regulator. This step reflects the way of reducing and redefining government role in the industry. Up until now, the Government of Indonesia (GOI) has gradually formed separate agencies as required by related laws. The new regulations are Government Regulation (GR) No. 42/2002 concerning Natural Oil and Gas Up-Stream Business Activities Executive Body (BP Migas), GR No. 67/2002 concerning the Regulatory Body for Oil Fuel Supply and Distribution, and the Business on Transporting Natural Gas Through Pipelines (BPH Migas), and GR No. 53/2003 concerning Electricity Market Supervisory Body (EMSB) for competitive areas.

However, issuing three principal laws and their implementing regulations in a relatively short transition period has placed the government and new regulator "under attack". This paper investigates the early stage of the implementation of new regulatory paradigm in an effort to set up better regulation in energy sector. After an introduction, Chapter 2 describes macroeconomics situation and main issues in Indonesia's energy sector. The importance to regulate the sector, the objectives, challenges and specific criteria for an independent regulator are then outlined in Chapter 3. This chapter also gives updates of independent regulator in upstream and downstream of oil and gas business, and regulator in power sector.

Then, Chapter 4 explores current practices of related agencies in the regulation process and insights of possible future challenges in regulating energy sector. Final chapter consists of the conclusion and recommendation for a better regulation to secure energy services to the people and to maximize benefit to the economy. Since regulation is a broad issue and due to the availability of regulation and existence of regulatory agencies, then the investigation of this paper is focused on the independent regulatory body in oil and gas,

power sectors and related national issues. Meanwhile, the term of regulatory body and executive body are sometimes interchangeable in order to have a smooth discussion flow.

2. MACROECONOMY AND SOME STRATEGIC ISSUES ON ENERGY

Indonesia's energy sector is vital to the national economy. For decades, it has been long recognized as the "main engine" to country's economy. Despite government constant efforts to boost non oil and gas export up, President Megawati Sukarnoputri's speech on August 16th 2004 before Parliament demonstrates how national economy still depends substantially on energy sector, especially oil and gas.

Table 1 shows macroeconomics variables such as economic growth, per capita GDP, inflation rate, current account, and budget surplus for fiscal year 2000-2003. While Table 2 gives basic assumptions for 2004 and 2005 fiscal year, including exchange rate, oil price, oil production, and Central Bank Certificate (SBI).

Table 1. Macroeconomics at a Glance

ITEMS	Unit	Realisation			Projection
		2000	2001	2002	2003
Inflation Rate	%	9,4	12,5	10,0	8,5-9,0
Economic Growth	%	4,9	3,3	3,7	3,5-4,0
Per Capita GDP (Nominal)	USD	756	677	810	944
Current Account (of GDP)	%	5,3	4,9	4,2	2,2
Budget Surplus/Deficit (of GDP)	%	-1,6	-2,8	-1,7	-1,8

Source: Bappenas and Ministry of Finance, 2004

Following a relatively stable macroeconomic condition, an optimistic investment climate has recently shadowed The Ministry of Energy and Mineral Resources' (MEMR) office. The Director General of Oil and Gas reported in *Koran Tempo* (2004) that total investment in oil and gas sector on Production Sharing Contracts have increased from US$ 4.7 billions in 1997 to US$ 5.3 billions in 2003. While total investment in upstream of Oil and Gas sector for 2004 fiscal year is predicted to be US$ 7.5 billions.

Table 2 Basic Assumptions

	Unit	2004 APBN	2005 RAPBN
Economic Growth	%	4.8	5.4
Inflation	%	6.5	5.5
Exchange Rate	(Rp /US$)	8.600	8.600*
Oil Price	US$/Barrel	22.0	24.0*
Oil Production	MBCD	1.150	1.125
S B I	%	8.5	6.5

Source: Ministry of Finance (April, 2004) and Presidential Speech (Aug, 2004)
**) To be adjusted due to recent increase of oil price*

As reported in *The Jakarta Post* August this year, state gas company PT Perusahaan Gas Negara (PGN) and leading U.S. refiner Conoco Phillips, signed a US$ 4.3 billion gas sale contract. Conoco will sell a total of 2.3 trillion cubic feet of gas for a period of 17 years from its corridor block in Grissik, South Sumatra. It will begin selling 170 million cubic feet per day (MMCFD) in the first quarter of 2007, increasing to 400 MMCFD by 2012 and maintaining this rate until the contract expires. This contract is expected to secure gas supply that will be transported through a new SSWJ (South Sumatera-West Java) pipeline that is now under construction. This project is funded by JBIC soft loan signed on 2003. Aside from the Conoco deal, PGN has also signed a contract with state oil and gas company PT Pertamina to buy 250 MMCFD of gas over 15 years from Pertamina's South Sumatra gas field, which will start operations in 2006.

In power sector, Indonesia has had 27 contracts with the Independent Power Producers (IPPs) for generating new total capacity of 10.8 GW. After the crisis, the IPP projects are then continued, deferred, or canceled. Some IPPs have brought the GOI to international arbitration for not being able to meet terms of the contracts. The GOI, however, has decided not to settle the existing IPP contracts in court, but rather to proceed to renegotiating the contracts. Recently, the renegotiation process between PLN and IPPs has reached agreement on terminating the contracts of 6 large projects, reached long-term agreement on the new selling price of electricity and new terms and conditions of 20 projects, and one project in the litigation process (Pratomo, 2004).

In general, government has regained its confidence in power sector after the World Bank agreed to fund a US$ 141 million loan to PLN in Java-Bali Power Sector Restructuring and Strengthening Project signed on June last year. Bappenas' report (2004) on Foreign Loan Implementation Performance shows that two large power plant projects are also agreed upon JBIC loan on April this year. The first is Muara Karang Gas Power Plant Project that needs Japanese Yen 55.7 billions. Other is Muara Tawar Gas Power Plant Extension Project with the project cost counts to Yen 18.1 billions.

Having had some optimistic figures mentioned above for oil, gas, and power sector, however, one cannot deny that there have been energy crisis in several areas and inequality among people in terms of accessibility, quality, and affordability of energy services. The following issues still remain.

Unmet Demand

Shortage of the natural gas supply has hampered activities in Small and Medium Enterprises (SMEs) in West Java, Asean Aceh Fertilizer Plant (AAF) in Aceh, and other large industries in East Java. Some areas in Sumatera and Kalimantan islands have also experienced brownout or even blackout of electricity power. Similar to gas supply, various oil products in some areas also disappear from the market. People in some *Kabupaten* (district) in East Kalimantan Province found it is difficult to get fuel oil in such oil-rich province. For example, in two *Kecamatans* (sub-districts) in West Kutai *Kabupaten*, the price of BBM[2] - if any supply available - has recently rocketing to unprecedented level due to the supply and transportation problem. The gasoline price jumped to Rp 15.000,0 per liter; diesel oil or solar reached Rp 14.000,0; and kerosene was sold starting at Rp 12.000,0. While the normal price were only Rp 4.500,0; Rp 4.000,0; and Rp 2.500,0 respectively.[3]

In addition to this issue is less transparent decision making process for the composition between domestic use and export of gas production. Infrastructure, also, has always been a favorite scapegoat for failure to transport oil and gas products to industry and residential user. In short, with relatively abundant oil and gas reserves, Indonesia's energy supply is still lagging behind the rising demand, thus, threatening the continuity of security and distribution of energy supply.

[2] BBM stands for "Bahan Bakar Minyak" (fuel oil).
[3] Official letter from *Bupati of* West Kutai to The President of Republic of Indonesia, Sept 1, 2004.

Energy-Product Pricing

Nowadays, being a lower-income country and exporting of oil and gas at the same time have sent the policy makers in energy sector into a dilemma. Price increase may benefit the country for oil revenue. On the other hand, however, it also put the burden on national balance of payment since oil subsidy would significantly increase. Government predicted that with the oil price climbing up to US$ 50s level per barrel, the subsidy would jump to a higher amount of Rp 63 Trillions for the whole fiscal year 2004. It almost doubles the figure in 2003 that reached the total subsidy around Rp 30 Trillions (*Kompas, 2004*). Table 3 shows fuel subsidy for the last six years. Furthermore, oil price increase worsens the market price of electricity since about one third of generating electricity across the country heavily depends on fuel oil and gas supply.

Table 3. Fuel Subsidy So Far

(Rp Billions)

Fiscal Year	Plan	Realization
1999/2000	9.9	39.9
2000	22.5	55.6
2001	53.7	63.3
2002	30.4	31.7
2003	12.2	30.0
2004*	14.2	40.0
*) Jan-Aug		

Source: DG Migas, 2004

Historically, based on World Bank study (2000), pricing is still one of the sector's most pressing issues. In the past, at the aggregate level, domestic prices of a composite barrel of the five regulated BBM products, i.e. motor gasoline, kerosene, Automotive Diesel Oil (ADO) or solar, industrial diesel oil, and fuel oil, were on average less than 50% of international prices. Also, the price of natural gas was somehow distorted. For the future, based on National Development Program (*Propenas*) fuels subsidy will gradually be phased-out. Unfortunately, the current oil price hike may deter government plan.

Restructuring and Reform Agenda

In the 1990s, restructuring process has been carried out in various ways. Reform process was undertaken by implementing Power Sector Restructuring Policy in 1998 consisting a set of program to put the foundation for future development of Indonesia's power sector in place. Key activities of the policy are: redefining government role;

strengthening regulatory framework; establishing IRB; restoring financial stability by gradually increasing the tariff; introducing competition; and rationalizing and expanding private participation. The introduction of IPP was also one of the ways to secure national power supply through public-private participation.

Restructuring energy sector, then, entered the new era in early 2000s after promulgating three new laws in oil and gas, electricity, and geothermal as mentioned in the previous chapter. However, the subsequent actions are still to be awaited. Delay in finishing up the related policy and regulation has cost the industry with delaying of infrastructure development and calamity. Controversy of LNG terminal development plan is one of the examples. It is not known who does what and who have decided. All of this shows that formulating the implementation and operational regulations for the laws, by and large, is not an easy task.

Decentralization and Environmental Concerns.

Another issue in national level is the decentralization of the governance to the *Kabupaten* and *Kota* (city) level (Law No 22 and 25/1999). Decentralization process starting at 1999 has been one of the main challenges to energy security. Decentralization also means "headache" for the execution of most of energy development plans. Various additional tax and regulation imposed abruptly by some local governments have increased cost for the survey, exploration, exploitation, and transportation of energy products.

Illegal mining and smuggling practices have also been the main concerns. It is predicted that almost one third of coal industry in South Kalimantan came from illegal mining through both legal and illegal ports.[4] Like other utilities, regulated prices in energy sector have been set below long-run marginal cost for decades, leading to excessively high demand, weakened incentives for efficient use, and unnecessarily environmental damage. In additions, energy product such as petroleum and electricity are of poor quality and must be improved all the time, particularly in phasing out the lead from gasoline and stabilizing the electricity supply. Poor air quality in some big cities will be a constant threat for people's health.

[4] Statement made by Director General of Geology and Mineral Resources at the "Indonesia Research and Development Forum 2004 on Energy and Mineral Resources", Jakarta, September 2004.

Public Service Obligation (PSO)

Other important issue is Public Service Obligation (PSO). This is very much important to curb inequality to energy supply among people. Ocampo (2004) underlined in Recent 19th World Energy Congress in Sydney that limited access to modern energy services will undermine the living condition and productivity of one third of world populations, cause hardships, and worsen disparity. PSO is somehow not yet comprehensively discussed in many forums in Indonesia.

PSO is critical due to the fact that the cost to provide services in rural area is much higher than urban. World Bank (2004) in its recent study on infrastructure calculates that connection cost for electricity in rural is about 33% higher than that of urban areas. So far, demand and supply response are restricted to large consumers. In such high demanded public utilities sector and limited national budget, then the policy on PSO is somewhat unclear. Basically, the main concern in PSO is to provide accessibility and affordability of energy services to all people including who live in rural and isolated areas.

Good Corporate and Good Governance Practices

Last but not least is KKN[5]. Indonesia is still ranked as one of the highest KKN practice country in the world. In the transition period, rent seeking behavior and lack of good corporate and good governance practices in such huge investment and business activities in globalization era may thwart programs in regulating the sector. Therefore, discussing development issue especially regulation in energy sector cannot just put KKN issue away. Although some basic regulations for sector have been in place, the potential negative impact of KKN on energy sector still remains.

3. WHY REGULATE AND HOW?

Energy regulation is a complex subject. For Indonesia, it covers several cross cutting issues, namely: social, economy, environment, and decentralization. Wim Kok (2004) notes that affordability and security of energy supply are some of the main topics in the social issue. Contribution to welfare, employment generation, and maximum contribution to government income have been among the most important economy issues for decades. Meanwhile, the issues on environment and ecology consists of least emissions per kWh

[5] KKN stands for "Korupsi", "Kolusi", and "Nepotisme" or Corruption, Collusion, and Nepotism practice.

generated, least emissions per ton fuel of refineries, least emissions per ton.km or car.km, and high percentage of renewable energy. To put simply, the purpose of the energy sector in Indonesia as a developing country is, then, to contribute to the national development by providing energy services to as many people as possible, as cleanly as possible, and as cheaply as possible.[6]

Regulation is needed since energy is fundamental to society. "Societies collapse when the energy flow is suddenly impeded", Rifkin (2002) wrote in one of his latest books. We do not want Indonesia to be commonly or fully dependent on other country's investment and technology, nor depends on multinational company as it happened in Azerbaijan. Kleveman (2003) reminds the rest of the world to avoid the condition of what once a former British Petroleum (BP) spokesman told him that Azerbaijan would collapse if BP pulls out from Baku field. Therefore, better regulation and continuous effort to increase self-reliance in energy sector is very critical.

Independence

The global trend of restructuring and reform in energy sector has pushed regulatory issues to the fore, among them the role of regulatory bodies or agencies. In the developed market, these agencies have a long history. Nowadays, creating such agency or empowering the existing regulator has become a central end of reforms around the globe. Some governments are reluctant to give up political control over regulatory decisions. Many issues, however, remain debatable, particularly the notion of independence.

Independence can be interpreted in any different ways. It makes establishing an independent regulatory body difficult. It is even more challenging in country with a limited tradition of independent public organizations and lack of regulatory experience such as Indonesia.

Smith (1997) assess that formal safeguards for the independence requires, among others: (1) providing regulator with a separate legal directive, free from ministerial influence; (2) setting down professional criteria for filling the positions; (3) involving both executive and legislative branches in the recruitment process; (4) assigning the member of the agency for fixed terms and protecting them from arbitrary removal; (5) exempting the agency from civil service salary rule that make it difficult to attract and keep hold of well-qualified staff; (6) providing agency with a unswerving source of financial support, usually

[6] Part of the sentence was found frequently in many books and paper, especially in World Bank publications.

allocated levies on regulated firms or consumers; (7) and staggering terms so that they do not coincide with election cycle.

However, being independent is not enough. It needs to be brought together with measures to make regulator accountable for its actions. Checks and balances are definitely required to ensure that regulator does not stray from its mandate, engage in KKN practices, or become entirely inefficient. Fitting independence and accountability in proper balance is quite difficult, but the following measures have been adopted by many countries: (1) commanding rigorous transparency in decision-making process; (2) ruling out conflicts of interest; (3) providing helpful arrangement of appealing the agency's decisions; (4) providing for scrutiny of the budget; (5) subjecting the regulator's conduct and efficiency to inspection by public or independent auditors and other public watchdogs; (6) allowing regulator's removal from office in case of proven misconduct or incapacity.

Regulatory Challenges

Regulation in infrastructure and utilities, including energy, usually has three main objectives: (1) to protect consumers from abuse by dominant market power company; (2) to support investment by protecting industry from arbitrary action by government; and (3) to promote economic efficiency. According to Warrick Smith (1997), regulating energy sector is naturally also complicated by three factors. *First*, price for energy is usually political. Energy history is abounding with examples of justifiable price increases being withheld at the cost of investors and the long-term concern of consumers. *Next*, investors are typically aware of these pressures and of the vulnerability of their huge, long-term, and immobile investment. Unless a government has made a credible assurance to rules that make certain an opportunity to have reasonable returns, private investment will not flow in. *Third*, the long-term nature of most investments in energy sector makes creating credible commitments difficult. Highly specific rules can provide assurance to investors and lower the cost of capital. But they make it difficult to change regulation to unforeseen developments, including changes in technology and market conditions.

One of the most fragile aspects in the new regulatory era is the relationship with ministry office. It is suggested that the ministry is responsible for policy and the agency for regulation. However this division is unsupportive in practice, because the line between concepts is blurry. Consequently, qualified personals with well-built background and proficiency on the subject are strongly recommended to fill the position in regulatory body.

Independent Regulator in Energy Sector: Updates

The enactments of new Oil and Gas Law No. 22/2001 and Electricity Law No. 20/2002 have significantly brought changes in the sectors. Responding to the new challenge of an open market, new Oil and Gas Law restructures oil and gas business. Hence, it has also brought the monopoly of Pertamina to an end. In upstream sector, the authority of mining right is now returned to the government after conducted by Pertamina in the past. Any state-owned and local government owned companies, cooperatives, and private company might now participate in oil and gas exploration and exploitation. Thus, oil and gas upstream activities will be conducted in more open and transparent way.

Liberalizing down stream business as one of the keywords to deregulation, including refining, transportation, storage, distribution and marketing the products, will also be conducted in an open and more transparent way. All players are free to enter the market, including state and regional owned companies, cooperatives, and private companies. In additions, there is a clear demarcation between upstream and downstream players. This is expected to give more room for market mechanism. In additions, through GR 31/2003 Pertamina has been transferred into a limited liability company (Persero) and has no longer its regulatory function.

Based on the new law, nowadays the development and regulatory aspects of oil and gas sector are administered and managed by the following: (a) Directorate General of Oil and Gas (DG Migas) as the main policy making agency; (b) BP Migas as the executing body; (c) and BPH Migas as the regulating agency .

The role of DG Migas is now limited to supervision and control function for both upstream and downstream business activities. Upstream activities include exploration and exploitation, while downstream covers processing, transportation, storage, and distribution/commerce. In addition, DG Migas is also responsible to conduct all of government activities and to formulate the policy measures in oil and gas business.

BP Migas, on the other hand, has to control and manage the execution of upstream oil and gas activities based on Cooperation Contract (CC). Some of BP Migas task includes: providing input to Minister on preparation of operational territory; preparing the CC; giving approval of business plan and budget proposal; and monitoring the implementation of the CC. In the meantime, BPH Migas is responsible, among others, for the provision and distribution of BBM and natural gas through the pipelines to all people in the country, price and tariff setting including toll fee, and maintaining the national oil fuel reserves.

In power sector, the new Electricity Law No 20/2002 accommodates long-term future market trend for an open market, based on ideal condition for multi buyer-multi seller system. Electricity supply business is to be unbundled into subsystem such as generation, transmission, distribution, exchange and operation market, and last mile or retail sale. Other supporting businesses, for example consulting services, construction, testing, operation and maintenance, research and development, and training center facilities will be carried out by separate entity. However, electricity transmission and distribution will still be preserved for state-owed companies.

In terms of regulation, as mentioned in previous section, EMSB has been established through Government Regulation No. 53/2003. EMSB is an Independent Regulatory Body to regulate and monitor electricity business for competitive area. It's main role are, among others, creating market rules; monitoring fair competition; protecting public interest; enforcing regulations; and facilitating dispute resolution. EMSB is directly responsible to the President. In the meantime, the Directorate General of Electricity and Energy Utilization (DGEEU) still plays the key government role for over all policy and regulation in the power sector. The recruitment and selection process for EMSB's personals is now underway.

For a successful practice in regulatory framework, all personals of existing regulator (the DGs) and new regulators - BP Migas, BPH Migas, and EMSB - have also to keep informed with the latest development in energy sector. Not only do they have to master the current issues, but they also have to be able to cope with the trend and long-term vision in international market. These are at most important for the "new comers". Appendix 1 illustrates summary of the latest development in the sector and the long-term anticipation for the future.

4. REGULATION IN PRACTICE

Table 4 gives a highlight of current situation of regulatory framework in Indonesia's Energy industry. Having had a set of new regulations in energy sector and successfully establishing separate regulation agencies for oil, gas, and electricity businesses have made Indonesia's energy sector reform on the right tracks. On one side, government officer has frequently expressed their satisfaction upon the achievement and the performance of the sector. They also show their confidence for a prospective future of Indonesian industries. On the other side, some experts, observers, and investors, however, cannot cover up their deep concern for some business practices that might leading to a setback. At this moment, judicial review process for the new Oil and Gas Law No 22/2001 is underway in national

Constitution Court to ensure better benefit for all Indonesian. In regulatory framework, transition period and lack of socialization may threat the implementation of independent

Table 4. Existing Condition of Policy and Regulation in Energy Sector

(As of August 2004)

Sector	Blue Print	Law	Regulator/ Executing Body	Competition	Main SOEs
Oil					
Upstream	None*	Available	Available	Semi	PT. Pertamina
Downstream	None	Available	Available	Limited	PT. Pertamina
Gas	In Progress	Available	Available	Very limited	PT. PGN/ Pertamina
Electricity	Available	Available	In Progress	N o n e	PT.PLN
Geothermal	None	Available	None	Very limited	PT. Pertamina/ PT. PLN

**) To some it means no need for Blue Print or Master Plan in Upstream.*

Source: Enhanced from Eddy Satriya (2003)

regulator. The following are some of conditions that have put regulator somehow "under attack".

Firstly, government political wills to finance the newly born regulator in transition period is unclear. This makes the agency difficult to run the office effectively and in an efficient manner. Budget allocation process still has to follow regular process in Ministry of Finance, meaning that their salary cannot escape from the regular standard of civil servant. This condition violates formal safeguard for the independent requirement mentioned in Section 3. Relatively low formal salary is pretty much true for BPH Migas, while BP Migas made it successfully to more comfortable level by benchmarking at least to Pertamina's salary.

Secondly, even though related laws and government regulations have stated a clear job description, it is inevitable that some gray areas emanate in the transition regulatory framework, especially in oil and gas sector. Kurtubi (2004) clearly said that BP Migas has already out of its track in managing and marketing the gas and national LNG industry to the investors, leading to a weak bargaining position. My experience teaches that in transition, there always exists an overlapping of authorities and budget power dispute. Somehow this situation provides new opportunity for new players and existing one in the industry.

Next, in terms of independence, it seems that new regulators had difficulties in freeing up the institution from government intervention in two ways. First, at the early stage

regulators depends heavily on government for budget supports. It might put them in difficult position whenever they have to make decision on contracts, negotiation, or choosing the winner since PT. Pertamina's share belongs to government. Second, some personals from government and regulator also have position as board of commissioner of several state-owned companies in energy sector. In short, conflict of interest has not easily been ruled out as recommended for a better regulation.

Fourthly, It was not an easy task for the Independent Regulator and Executing Body to recruit skilled staff members to fill the position in the new agencies. It is for people knowledge that many of top executives in BP Migas and BPH Migas came from the "migration" of existing regulators in ministry and operators. This condition will need time to proceed for a real independence agency. Qualified staff member with strong background in energy sector is not merely enough. Being an independent regulator demands also other supporting disciplines such as economics, law, and social adequacy.

Then, incumbent phenomenon is other crucial aspect in regulation. Most of the case, competition in transition faces hard situation regarding the incumbency. Incumbent phenomenon relates to resistance of the early player in the market. In the case that the player is a state-owned company, regulator usually has to work hard to provide a fair path for competition. Incumbent naturally is unwilling to give up their market share or tends to put additional efforts to keep their "slice" bigger. Recently, PT. Pertamina has issued a specific letter to all Gas Station Owners in Jakarta, West Java, and Banten provinces in order to protect their market. Basically, Pertamina gave warning to the owner for not to sale competitor products such as lubricants, fuel treatment and other additive products in their stations. Any violation will end up with sanction to the owners.[7] Similarly, in the future, I envisage that PT. PLN would not be that easy to giving up their market share to competitors.

Finally, slow progress in finalizing implementation regulations for all new laws in energy sector have resulted in the delay of energy sector reform. Non-existence of Gas Master Plan also worsens the regulating aspects especially in downstream business of oil and gas. Up to now, DG Migas have just completed three Government Regulations out of seven as mandated in oil and gas sector. Mean while in electricity, government has to complete at least six Government Regulations in electricity business and two regulations in engineering section. At the moment, government completed one Government Regulation on

[7] Letter No 820/E23100/2004-S3 issued on April 30th 2004, by Kepala Penjualan, Unit Pemasaran III.

EMSB (GR No. 53/2003). Intensive support from related agencies and funding assistance from the National Budget would expedite the process of drafting and finalizing regulations. Quoted from *Koran Tempo* (2004) last August, State Secretary has returned two drafts of Government Regulations for both upstream and downstream oil and gas activities proposed by MEMR due to potential dispute on land certification and the matter of utilizing Pertamina's infrastructures.

Beyond Regulator

As mentioned earlier, regulatory framework is a cross-sector issue. This situation leaves the Ministry and Regulators to always seek solutions for the unsolved and to be more prepared for the following challenges.

The first is the hardship on decentralization practices may still put some barrier for regulating the sector. In line with this issue is the misconception of some province or *Kabupaten* to explore their region due to the environmental and ecological issues.

Other is dualism in supervising state-owned company (SMSOE[8] and MEMR). In the past, all state-owned companies in energy sector were responsible mainly to MEMR. Today, they also have to report in detail especially the financial aspects and development plan to SMSOE. This dualism is not solely happened in energy sector, but also to other sectors.

The third is that the necessity to gain maximum profit mandated by SMSOE may hamper the provision of energy supply to all people through Public Service Obligation. Article 66 Law No. 19/2003 concerning State-Owned Companies stipulates that PSO may only be imposed to the State-Owned Companies after getting approval from the Minister or Stakeholder Meeting (*RUPS*). One of most crucial aspect is the uncertainty of the provision of oil supply and related products across the country, since Pertamina's obligation will be ended by November 2005.

The fourth is poor coordination and too much overlapping in energy sector management. Too many offices took part in one specific issue, but too few action and result. The scarcity of gas supply to Asean Aceh Fertilizer factory in gas-rich province Aceh proves this. This observable fact also happens to other specific energy issues such as renewable energy, *blue-sky* program, and other technical and environmental aspects.

[8] *SMSOE stands for State Ministry for State-Owned Enterprises.*

Next is the early stage of BP Migas, BPH Migas and EMSB might have a possible overlapping job description with KPPU[9]. Especially in clearing up dispute on competition issues such as dominant market abuse and other monopolistic practices. KPPU is established following of the enactment of Antimonopoly Law No 5/1999.

Finally is that worsening political turmoil in Central Asia contributes to the unprecedented oil price to a level of US$ 50.0 per barrel. At certain points all of these might amplify the complexity in regulating the sector. Moreover, recent geopolitics development does not only involve Central Asia and U.S. multi national companies in oil and gas, but in any way may also spill it over to Indonesia as one of OPEC member and the biggest Moslem country in the world.

5. CONCLUSION

In general, Government of Indonesia has been on the right track in conducting energy sector reform. Issuing three consecutive laws after economic crisis and political turmoil in 1998 have shown how all related stakeholders put regulation issues at the highest priority. This step has been followed by establishing separate agencies taking care of regulation issues, namely BP Migas as an executive body for upstream oil and gas business, BPH Migas to regulate downstream oil and gas business, and a brand new EMSB to supervise electricity market for competitive areas.

However, these regulatory agencies still suffer from problems such as unclear financing policy, lack incentive for the independence, existence of gray area, strong incumbency, and limited qualified staff member to fill position in the agency. In the future, decentralization process, slow progress in publishing related regulations, dualism in supervising state-owned operators, unclear Public/Universal Service Obligation policy, and lack of good corporate and good governance practices might also jeopardize the existence and the performance of the agency.

Therefore, in order to keep energy sector reform unharmed and to improve the performance of the independent regulator, it is recommended to refocus job description, reassess the agencies' independency, accelerate market competition, and prioritize the finalization of related government regulation and other decrees.

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[9] KPPU stands for "Komisi Pengawasan dan Persaingan Usaha.", or National Commission for Antimonopoly Practices.

Appendix 1. LONG TERM PERSPECTIVE

Twenty Years Ago	Ten Years Ago	TODAY	10 Years From Now	20 Years From Now
There were oil price controls in the US. Gas and power operations were highly regulated everywhere. A genuine world spot market for crude oil did not exist.	Fairly efficient world crude oil and petroleum product market had formed. Natural gas contracts in Europe and Asia were at least partially linked to spot prices in petroleum product markets. The US gas market was in the midst of deregulation The first experiments with competitive electricity market started.	Crude oil and petroleum markets continue to expand. Gas-to-gas competition is a reality in the US and UK. The EU gas directive has been passed and the first open access regimes are being introduced, e.g. in Holland. Competitive electricity market have been or are being introduced in all major countries of North and South America, the UK, Australia, New Zealand and Europe.	The policy-induced barriers among energy sectors such as gas, power, and petroleum products are disappearing. Techniques like slim-hole drilling and intelligent drills reduce the cost of oil production. New super cars become commercially available using only one third to half the energy needed today. New techniques such as high-pressure pipelines and floating LNG facilities maintain the competitiveness of natural gas. Gas and power compete as the cheapest way to transport energy as high-voltage direct current transmission and some super-conductive transmission lines lower the cost of electricity transport. Micro-turbine and some form of fuel cells become competitive rendering distributed generation a reality in some uses. Better means of IT based electronic communication and control systems reduce energy losses and waste. Despite the low costs of traditional energy sources, some renewable forms of energy are profitable in a number of niche market, including in developing country. Competition within and between energy sub-markets stimulates the development of new technology and organizational solutions.	State-owned oil companies are a rarity. Oil equivalent to today's Brent quality costs about US$ 10/bbl (in money of 1998) as technological improvement mean that the exploitation of heavy oil shales and tar sand is economic at this price. Few countries maintain special petroleum tax regimes. The distinctions between oil, gas, and power companies have disappeared. New types of energy companies form, partly organized around customer solutions. The real price of energy has continue to drop. Energy efficiency is increasing rapidly as new building techniques and IT based control systems are introduced on massive scale world wide.

Source: Excerpted and rearranged from Michael Klein(1999)

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