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# INDONESIA'S ENERGY SECURITY IN POWER PROJECTS: ARE WE SECURING IT RIGHT? LESSON LEARNED FROM THE EU

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## Abstract

*Over the past few years, one of Indonesia's state-owned enterprises, PLN, has conducted dialogues focusing on developing a new value-creative business model to transform itself, a sleepy regulated utility, into a truly competitive electricity service provider. However, efforts to preserve the prominence of the Country's electricity sector have been ongoing as the sector is still experiencing sustained rolling blackouts, net import dependency and lack of transmission facility enforcement throughout the Indonesian archipelago. Such efforts have been varied from the incentivise policy and programs such as the Public-Private Partnership and the two phases of Fast Track Program. The reformation of electricity law dated back on the 1985, 2002 and 2009 to attract investors in the development of Indonesia's electricity sector have been enacted, but a controversial issue arose from the annulment of the Law No. 20 Year 2002 on Electricity by the Constitutional Court Decision No. 001-021-022/PUU-I/2003 stating that such law which clearly stating that the requirement to privatise electricity operation was unconstitutional. This article will try to provide a comprehensive comparative analysis of such decision with the common practice adopted by the EU which has successfully implemented its deregulation and separation of the electricity's business chain through unbundling the sector as part of liberalisation.*

**Keywords:** *unbundling, third-party access, independent system operator (ISO), independent transmission operator (ITO), fast track program, public-private partnership, electricity, Indonesia.*

## Abstrak

*Dalam kurun beberapa tahun terakhir, salah satu badan usaha milik negara, PLN, telah melakukan beberapa dialog untuk membahas perkembangan sebuah model bisnis baru yang memiliki nilai kreatif untuk mentransformasi perusahaan, pengaturan utilitas yang tak tersentuh menjadi penyedia jasa listrik yang lebih kompetitif. Akan tetapi, berbagai cara telah dilakukan untuk mempertahankan sektor kelistrikan Indonesia, namun sektor ini masih mengalami pemadaman bergilir, ketergantungan akan impor dan kurangnya fasilitas transmisi di seluruh penjuru Indonesia. Cara-cara yang telah dilakukan tersebut bermacam-macam, mulai dari kebijakan dan program yang menginsentivasi para investor, contohnya melalui Kemitraan Pemerintah-Swasta dan ketiga fase Fast Track Program. Reformasi akan undang-undang ketenagalistrikan telah dimulai dari tahun 1985, 2002 dan 2009 yang dimaksudkan untuk menarik para investor untuk berpartisipasi dalam sektor kelistrikan di Indonesia. Namun, isu kontroversial timbul setelah Mahkamah Konstitusi RI dalam putusannya No. 001-021-022/PUU-I/2003 membatalkan keberlakuan Undang-Undang No. 20 Tahun 2002 tentang Ketenagalistrikan yang menyatakan bahwa ketentuan mengenai privatisasi kegiatan ketenagalistrikan dalam undang-undang tersebut tidak konstitusional. Tulisan ini akan mencoba untuk menyediakan analisis perbandingan menyeluruh terhadap putusan tersebut dengan mengacu pada praktik di EU sebagai salah satu contoh negara yang telah berhasil menerapkan konsep deregulasi dan pemisahan rantai bisnis ketenagalistrikan melalui proses penguraian dan liberalisasi.*

**Keywords:** *unbundling, akses pihak ketiga, operator sistem independen (ISO), operator transmisi independen (ITO), kemitraan publik dan privat, ketenagalistrikan, Indonesia.*

## I. INTRODUCTION

Indonesia's general trend in economic growth is in a strong position, having achieved an average growth of 5<sup>9</sup>4 percent year-on-year in the December quarter of 2015.<sup>1</sup> Such robust growth has been undeniably spurred by a population of 255 million<sup>2</sup> (including an emerging middle class of 74 million<sup>3</sup>) which is undergoing an unprecedented degree of urbanization and industrialization. This growth should lead to Indonesia's increasing demand for electricity at around 8<sup>9</sup>% per annum (p.a.) in the foreseeable future, after a relatively slower rate of 6% for 2014 due to higher electricity prices and slower economic growth<sup>4</sup>, which means that it is expected to translate into growth in electricity demand from an estimated 153 terawatt hours (TWh) in 2011 to 223 TWh by 2016.<sup>5</sup>

In view of the above mentioned relationship between energy and Indonesia's economic growth, it is safe to say that energy, especially electricity, has a crucial economic value with a strong symbiosis relationship. One cannot work properly without the existence of the other. In fact, in some countries like the EU electricity has also been considered as a commodity in the case law of the European Court of Justice, and as such, its price should be determined by supply and demand.<sup>6</sup> However, aside from this, energy also contains an essential public service obligation ('PSO') which leads to a state monopoly right in return.<sup>7</sup> The primary reason to do so is because energy is seen to be a public good, pertained to everyone and without differentiation on material status.<sup>8</sup> In other words, the state's vertically integrated undertaking ('VIU') has the obligation to provide access to electricity at the most affordable costs for Indonesian 'people' (as mandated under Article 33 of the Constitution) by pressing its operational costs as low as possible.

Given the fact that the Indonesian Government has tried to restructure its electricity industry to meet such demand, it had enacted Law No. 20 Year 2002 on Electricity to promote the unbundling<sup>9</sup> scheme to open up the Indonesian electricity market.<sup>10</sup> Such approach was intended to open up the market to the private sector as a capital

<sup>1</sup> Trading Economics, "Indonesia GDP Annual Growth Rate," <http://www.tradingeconomics.com/indonesia/gdp-growth-annual>, accessed on March 6, 2016.

<sup>2</sup> Central Intelligence Agency, "The World Factbook 2015," <https://www.cia.gov/library/publications/the-world-factbook/geos/id.html>, accessed on March 6, 2016.

<sup>3</sup> Vaishali Rastogi, Eddy Tamboto, Dean Tong and Tune Sinburimsit, "Indonesia's Rising Middle-Class Consumers: Asia's Next Big Opportunity," [https://www.bcgperspectives.com/content/articles/center\\_consumer\\_customer\\_insight\\_consumer\\_products\\_indonesias\\_rising\\_middle\\_class\\_affluent\\_consumers/](https://www.bcgperspectives.com/content/articles/center_consumer_customer_insight_consumer_products_indonesias_rising_middle_class_affluent_consumers/), accessed on March 6, 2016.

<sup>4</sup> Perusahaan Listrik Negara, "Annual Report 2014: Towards New Performance Level," <http://www.pln.co.id/dataweb/AR/ARPLN2014.pdf>, accessed on March 6, 2016.

<sup>5</sup> PriceWaterhouse Coopers, "Power in Indonesia: Investment and Taxation Guide, April 2013 – 2<sup>nd</sup> Edition," [https://www.pwc.com/id/en/energy-utilities-mining/assets/Power%20Guide%202015%20\(final-octL\).pdf](https://www.pwc.com/id/en/energy-utilities-mining/assets/Power%20Guide%202015%20(final-octL).pdf), accessed on March 6, 2016.

<sup>6</sup> *Ibid.*,

<sup>7</sup> Peter D Cameron, *Competition in Energy Markets: Law and Regulation in the European Union* (Oxford, Oxford University Press, 2007), pp.13.

<sup>8</sup> Bartłomiej Nowak, "Equal Access to the Energy Infrastructure as a Precondition to Promote Competition in the Energy Market: The Case of European Union." *Energy Policy Vol. 38* (2010): 3691.

<sup>9</sup> Unbundling means running energy transmission and distribution networks independently from the production and supply side. See Zornica Zafirova, "Unbundling the Network: The Case for Ownership Unbundling?" *International Energy Law and Taxation Review Vol. 2* (2007): 29.

<sup>10</sup> Indonesia, *Undang-Undang tentang Ketenagalistrikan (Law regarding Electricity)*, UU No. 20 Tahun 2002, LN No. 94 Tahun 2002 (Law Number 20 Year 2002, SG No. 94 Year 2002), art. 16.

incentive to cut operational costs. However, the aforementioned law was revoked by Constitutional Court Decision No. 001-021-022/PUU-I/2003 which clearly states that the requirement to privatize electricity operation is unconstitutional.<sup>11</sup> As one of the consequences, a fundamental question has been raised concerning the following said correlation: should electricity, like all material goods, especially finite goods, be left to market forces, or should it be available to everyone when there are those who cannot afford to pay a fair market price for it (thus the electricity price should be regulated)?<sup>12</sup> This article will try to evaluate such decision and analyze all possible options in order to provide solutions to this challenge.

## II. PAST HISTORY AND THE LATEST DEVELOPMENT OF THE INDUSTRY

### A. From the 'Keynesian' Paradigm in Energy Law to Its Turning Point

The energy sector, and the electricity sector in particular, is the key feature of sustainable national economies around the globe. Consequently, governments have become involved in the development of energy resources and in setting up the framework within which energy markets operate.<sup>13</sup> Electricity was developed during the last decades of the nineteenth century, characterized with the establishment of electricity and gas supply companies by municipalities in order to supply local communities into an extended development of interconnected national grids.<sup>14</sup>

A traditional paradigm in managing electricity sector is known as the 'Keynesian Paradigm'. It is a paradigm established during the period from 1945 to 1980 in which the energy sector was either owned or dominated by governments.<sup>15</sup> In that period (period of post-World War II), state intervention in the electricity sector is evident in the form of the following:<sup>16</sup>

The operations of industries were usually exempted from the scope of national competition law, and entry of new players into the market was excluded or strictly limited by statute;

PSO were imposed on the industry with respect to quality of treatment and continuity of service with exclusive rights that amounted to a monopoly in return; and

Supplying increasing quantities of energy at affordable prices.

The economic rationale for such a structure was that electricity production was a natural monopoly.<sup>17</sup> In practice, electricity sectors almost everywhere in earth evolved with (primarily) vertically integrated geographic monopolies that were state-owned

<sup>11</sup> Constitutional Court of the Republic of Indonesia, "Decision No. 001-021-022/PUU-I/2003," p.343.

<sup>12</sup> Nowak, *Loc.cit.*

<sup>13</sup> Iñigo del Guayo, Catherine Redgwell, Martha M Roggenkamp, and Anita Rønne, "Energy Law in Europe: Comparisons and Conclusions" in *Energy Law in Europe: National, EU and International Regulation*. 2<sup>nd</sup> ed. Edited by Martha M Roggenkamp, Chatherine Redgwell, Iñigo del Guayo and Anita Rønne (Oxford, Oxford University Press, 2007), p.1267.

<sup>14</sup> Donald N. Zillman, Martha M. Roggenkamp, Lila Barrera-Hernández and Iñigo del Guayo, "Energy Networks and the Law: Innovative Solutions in Changing Markets" in *Energy Law and the Law: Innovative Solutions in Changing Markets*. Edited by Martha M. Roggenkamp, Lila Barrera-Hernández, Donald N. Zillman and Iñigo del Guayo (Oxford, Oxford University Press, 2012), p.10.

<sup>15</sup> Nowak, *loc.cit.*

<sup>16</sup> Cameron, *loc.cit.*

<sup>17</sup> James M. Griffin and Steven L. Puller, "Introduction: A Primer on Electricity and the Economics of Deregulation" in *Electricity Deregulation: Choices and Challenges*. Edited by James M. Griffin and Steven L. Puller (Chicago, University of Chicago Press, 2005), p.2.

or privately-owned and subject to price and entry regulation as natural monopolies.<sup>18</sup> A natural monopoly is simply the case where a single firm can produce the total market output at a lower cost than a collection of individual competitive firms is able to do.<sup>19</sup> Such condition leads to the integration of the primary components of electricity supply – generation, transmission, distribution and retail supply – within individual electric utilities. As a result, these firms in turn had *de facto* exclusive franchises to supply electricity to residential, commercial as well as industrial retail consumers within a defined geographic area.<sup>20</sup>

As promising as it were, the economic burden needs to be rested in the sole players of the market (hereinafter referred as 'VIU's), such as: (i) high operating costs, (ii) construction cost overruns on new facilities, (iii) high retail prices, and (iv) falling costs of production from new facilities development, which stimulated pressures for changes that would reduce electricity costs and retail prices in order to achieve a sustainable electricity supply.<sup>21</sup> As a further impact resulting from failure to achieve such goal could result in blackouts. Blackouts can impose large externalities on the economy; at the same time, the provision of reserves capacity also has important public good characteristics.<sup>22</sup> Therefore, restructured power systems will require the market to provide adequate reserve capacity and ensure that extra generating capacity is always available so that the lights stay on and the industry keeps running.<sup>23</sup>

There were basically three types of determinants that led to reviewing the relationship between the State and natural monopolies, which can be described as follows:<sup>24</sup>

- 1) Economic. These sectors did not have good performance results under state ownership and management and a single, vertically integrated state-owned monopoly was considered as being less efficient than a market structure with more players;
- 2) Technological. Monopoly does not favor innovation; and
- 3) Political and refers to the shift in the conception of the role of the state in the market.

A new economic and legal paradigm that emerged in 1980s was characterized by market liberalization, privatization and competition.<sup>25</sup> Such a shift of paradigm in restructuring the electricity market is designed to enhance economic efficiency at all levels of operation, including distribution, transmission, generation and retail services.<sup>26</sup> The gains are likely to be largest in electric generation because generation costs are the largest components of end-use costs and restructuring has a larger impact on generation than on other segments of the electricity industry, such as

<sup>18</sup> Paul L. Joskow, "Lessons Learned from Electricity Market Liberalization." *The Energy Journal, Special Issue. The Future of Electricity: Papers in Honor of David Newbery* (2008), p.10.

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*

<sup>21</sup> *Ibid.*, p.11.

<sup>22</sup> Griffin, *loc.cit.*, p.6.

<sup>23</sup> *Ibid.*

<sup>24</sup> Cristina Havriş, "Competition and Regulation in the EU Energy Market," *Romanian Journal of European Affairs Vol. 9 No. 4* (2009): p.18.

<sup>25</sup> *Ibid.*, p.353.

<sup>26</sup> Catherine Wolfram, "The Efficiency of Electricity Generation in the United States after Restructuring" in *Electricity Deregulation: Choices and Challenges*. Edited by James M. Griffin and Steven L. Puller (Chicago, University of Chicago Press, 2005), p.227.

transmission and distribution, which are likely to remain more heavily regulated.<sup>27</sup>

Throughout the 1990s, governments in countries around the world began to change the ground rules which are characterized as a movement from 'traditional regulation for competition.'<sup>28</sup> This idea developed from a simple thinking: 'the institutional configuration of system based on the technically-centralized model can be restructured, and monopoly rights can be withdrawn to permit different suppliers to compete for customers.'<sup>29</sup> As a result, a new paradigm in government – energy industry relations has emerged, based on greater reliance on markets in which it has sought to introduce competition whenever possible, encouraging openness, decentralized production with network access, and remuneration on the basis of market prices, rather than costs.<sup>30</sup>

Today's market for power stands in stark contrast to the structure of the industry just over a decade ago.<sup>31</sup> In the present case, the electricity reform has taken place over the last fifteen years in various countries and more than a dozen existing restructured electricity markets around the world.<sup>32</sup>

## **B. The Pioneer of Energy Markets Liberalization: EU's Case**

### **1. The Historical Background of EU's Policy and Institutional Reform in the Energy Market**

The rationale and goal of European electricity market reforms over the last couple of decades are to open electricity markets and to giving consumers the choice of a supplier through introducing competition where possible and complementing it with regulation of the parts that would remain monopolistic.<sup>33</sup> In particular, in order to establish Regional Electricity Markets ('REM') as a step towards the establishment of the internal electricity market, sufficient interconnection capacity, which heavily characterized with natural monopolies, is necessary and that capacity should be made available to market participation.<sup>34</sup> Therefore, access to electricity networks is essential. Thus far, the EU has confronted electricity restructuring at three levels: treaty revision, statute-like measures, and pan-European and Member State administrative implementation.<sup>35</sup>

The establishment of the EU internal market in Energy, particularly in the electricity and gas sectors, has been a priority for more than 15 years.<sup>36</sup> And eventually in 2009, the EU's approach to successfully create internal energy market is to open up

<sup>27</sup> *Ibid.*

<sup>28</sup> Cameron, *op.cit.*, p.9.

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*, p.10.

<sup>31</sup> Griffin, *loc.cit.*

<sup>32</sup> Ross Baldick and Hui Niu, "Lessons Learned: The Texas Experience" in *Electricity Deregulation: Choices and Challenges*. Edited by James M. Griffin and Steven L. Puller (Chicago, University of Chicago Press, 2005), p.182.

<sup>33</sup> Rozeta Karova, "Capacity Reservations at Interconnectors: An Analysis Under EU Competition and EU Energy Law," *Competition and Regulatory Network Industry Vol. 13* (2012): p.237.

<sup>34</sup> *Ibid.*

<sup>35</sup> Charles H. Koch Jr., "Collaborative Governance: Lessons for Europe from U.S. Electricity Restructuring," *College of William & Mary Law School Faculty Publications Paper 1270*, (2009): p.81.

<sup>36</sup> Peter D Cameron, "The Internal Market in Energy: Harnessing the New Regulatory Regime," *Energy Law Review* (2005): p.631.

a space for planning within liberalization and competition, two new legal principles that are completely different from the Keynesian Paradigm.<sup>37</sup> These principles were introduced in order to fight monopolies and ensure security of supplies and were not directed at guaranteeing investment in infrastructure through governmental compulsory planning, but rather to open up markets, break monopolies, unbundle integrated companies, and introduce third party access ('TPA') obligations.<sup>38</sup>

Considering the fact that competition in the market is pivotal and interdependent between the Government and investors, the Government is under an obligation to create an effective regulatory regime in order to enable investors to participate in the industry. By doing so, it does not only serve the purpose of allowing investors to gain profits under infrastructure investment, but also securing security of electricity supply for customers in the long run. According to Freeman, the goals of efficacy and legitimacy are better served by a model that views the administrative process as a problem-solving exercise in which parties share responsibility for all stages of the rule-making process, in which solutions are provisional, and in which the state plays an active, if varied, role.<sup>39</sup> Therefore, it is highly encouraged for Governments to use this approach to ensure competitiveness in the market.

## 2. Current System and Policy

The first action in the informal pursuit of market liberalization was the creation of the Energy Charter Treaty, which was signed and ratified in 1994 by fifty-one signatories located both within and outside the EU, aimed at creating a legal framework dedicated to the promotion of long-term international cooperation in the energy sector.<sup>40</sup> This was for the purpose of open up the European market to third-party players.

Followed by the First and Second Energy Directives (Directive 1996/92/EC and Directive 2003/54/EC) whereby the former administrative unbundling (or 'Chinese walls'), the weakest concept of unbundling, was introduced, while the latter is the legal unbundling regime (stronger than the administrative unbundling, however weaker than ownership unbundling). The first directive was ineffective as it only provided the separation of account of the VIU for the network and supply and production (along with managerial separation). Although the directive did require authorities to be 'independent of electricity generation, transmission and distribution activities', no elucidation was provided on the extent of independence necessary.<sup>41</sup> Therefore, it has been criticized for not going far enough to transform traditional energy market structures.<sup>42</sup>

Under the Second Directive, legal unbundling was required whereby national transmission systems were required to be legally separate from activities not relating to transmission or distribution. Furthermore, Member States were obligated to set

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<sup>37</sup> Guayo, *op.cit.*, p.354.

<sup>38</sup> *Ibid.*, p.353.

<sup>39</sup> *Ibid.*

<sup>40</sup> Claudia A Duncan, "Lessons from the United States and Texas: Market Liberalization of the Natural Gas and Electricity Markets in Europe," *Texas Journal of Oil Gas and Energy Law Vol. 10* (2014): p.332.

<sup>41</sup> Eva Barrett, "A Case of: Who Will Tell The Emperor He Has No Clothers? – Market Liberalization, Regulatory Capture and The Need for Further Improved Electricity Market Unbundling Through a Fourth Energy Package," *Journal of World Energy Law & Business Vol. 9* (2015): p.5.

<sup>42</sup> L Hancher, in *ibid.*



up independent national regulatory authorities to: (i) monitor national markets; (ii) approve the conditions for connection of new electricity producers; and (iii) handle complaints and supervise network access and tariffs. While the provision on independence was strengthened to require regulators to be 'wholly independent from the interests of the electricity industry', again no elucidation was provided on the extent of independence necessary.<sup>43</sup> As a consequence, it recognized that legal and functional unbundling had not solved the fundamental conflict of interests within integrated companies, whereby the supply and production interests aimed to maximize their sales and market share while the network operator was obligated to offer non-discriminatory access to competitors.<sup>44</sup>

EU's Third Energy Packages looks to ensure that all European citizens are able to take advantage of the numerous benefits provided by a truly competitive common energy market.<sup>45</sup> The main focus highlighted in this legislative package includes consumer choice; fairer price; cleaner energy; security of supply; independent regulatory non-discriminatory third-party access, and proper unbundling.<sup>46</sup> Under this directive, three models of unbundling were introduced: (i) Ownership Unbundling (OU); (ii) Independent System Operator (ISO); and (iii) Independent Transmission Operator (ITO). Ownership Unbundling is the strongest form of unbundling as it requires the undertaking which owns the transmission system to act as the Transmission System Operator with responsibility for: (i) granting and managing third party access to the system; (ii) collecting access charges; (iii) congestion charges and payments under the inter-TSO compensation mechanism; and (iv) maintaining and developing the transmission system and investment planning.<sup>47</sup> While in the ISO and ITO, the network is owned by the undertaking and operated with independent system operator. However, as a clear distinction between the ISO and ITO models, under the ITO model the system operators are only legally separated within the same undertaking with supply and production activities. This recalls the failure of the legal unbundling under the Second Directive and contradicts the main objective of unbundling in the first place.

### III. THE SO-CALLED 'EFFECTIVE ENERGY MARKET': THE WHYS AND HOWS

#### A. Electricity as a Commodity: Nature and Characteristics

There are several unique characteristics in electricity which make this commodity special. Unlike fossil fuels or other energy sources, electricity is not extracted from nature, ready to use for energy purposes with some processing.<sup>48</sup> As a secondary energy source, electricity needs to be manufactured using one of the primary energy sources, such as: (i) fossil fuel combustion, (ii) uranium-based nuclear reaction, (iii) the power of falling water, (iv) sunshine, or wind, that allows turbines and generators to operate producing the electricity that can provide heat or light, run an immense

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<sup>43</sup> Barrett, *loc.cit.*

<sup>44</sup> *Ibid.*

<sup>45</sup> Bartłomiej Nowak, "Energy Market of the European Union: Common or Segmented?" *The Electricity Journal* Vol. 20 No. 10 (2010): p.29.

<sup>46</sup> *Ibid.*

<sup>47</sup> *Ibid.*

<sup>48</sup> Zillman, *op.cit.*, p.5.



variety of industrial and business machines and residential appliances.<sup>49</sup> It also needs to be borne in mind that electricity cannot be stored economically, so the amount generated at any point in time must equal the amount consumed.<sup>50</sup> It is a complex system, consisting of much more than just the technical infrastructure for the generation, transmission and distribution of electricity.<sup>51</sup>

By European definition, generation, transmission and distribution of electricity can be described respectively as follows:<sup>52</sup>

1. 'generation' means the production of electricity;
2. 'transmission' means the transport of electricity on the extra high-voltage and high-voltage interconnected system with a view to its delivery to final customers or to distributors, but does not include supply;
3. 'distribution' means the transport of electricity on high-voltage, medium-voltage and low-voltage distribution systems with a view to its delivery to customers, but does not include supply.

While according to national law, electricity generation, transmission and distribution are respectively defined as follows:<sup>53</sup>

1. 'the generation of electrical power' is the activity to produce electric power;
2. 'the transmission of electric power' is the transport of electric power from the generation of electric power to the distribution system or consumers or the transportation of electric power from one system to another;
3. 'the distribution of electric power' is the transport of electric power from the transmission system or the generation of electric power to consumers.

In its operational framework, electric energy is injected into the transmission grid by all generators and withdrawn by all end users.<sup>54</sup> Hence, such characteristics of delivered power must be carefully maintained so that the quantity injected must closely match with the quantity withdrawn moment by moment in order to maintain the frequency within a certain narrow band of tolerance.<sup>55</sup> One noteworthy point which needs to be highlighted is that, traditionally, each sector of the industry – generation at power plants, high-voltage transmission of power, and local distribution and metering – has natural monopoly characteristics.<sup>56</sup>

## B. Competitive Market to Secure Electricity Supply

It is widely recognized that free market competition favors efficiency and thus contributes to lower prices.<sup>57</sup> Creating a competitive market, where it was non-existent

<sup>49</sup> *Ibid.*

<sup>50</sup> Griffin., *Op.cit.*, p.5.

<sup>51</sup> Barbara Praetorius, et al. *Innovation for Sustainable Electricity Systems: Exploring the Dynamics of Energy Transitions*, (Germany: Physica-Verlag Heidelberg, 2009), p.2.

<sup>52</sup> European Parliament and European Council, *Directive Concerning Common Rules for the Internal Market in Electricity and Repealing Directive 2003/54/EC*, 13 July 2009, Directive 2009/72/EC, art. 2 available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0055:0093:EN:PDF>. Accessed on March 7, 2016.

<sup>53</sup> Indonesia, *Undang-Undang tentang Ketenagalistrikan (Law regarding Electricity)*, UU No. 30 Tahun 2009, LN No. 94 Tahun 2002 (Law Number 20 Year 2002, SG No. 133 Year 2009), art. 1.

<sup>54</sup> Griffin, *loc.cit.*

<sup>55</sup> *Ibid.*

<sup>56</sup> Griffin, *loc.cit.*

<sup>57</sup> Barbora Hrabčáková and Tomáš Lipták, "EU Legislation on the Electricity Market: Introducing Com-

before, requires a country to implement a wide range of structural and regulatory reforms in which the following eight principles are believed to be potentially helpful in achieving the intended goal, namely: (i) unbundle vertical monopolies; (ii) create a wholesale electricity market' (iii) guarantee access to the transmission grid; (iv) establish an independent regulator; (v) entrench reforms in the legal system; (vi) be careful with independent power projects ('IPPs'); (vii) consider private sector participation, corporation and privatization; and lastly, (viii) gain public support.<sup>58</sup>

In industrial policy, moving towards a regulatory state involves four key features: (i) privatization of state-owned enterprises; (ii) liberalization – that is, ending state monopolies; (iii) 're-regulation' – that is, establishing rules governing competitive supply; and (iv) establishing or strengthening independent/semi-independent regulatory bodies.<sup>59</sup> The last feature, however, is the most important yet overlooked component in electricity market reform.

Energy liberalization/restructuring started with the "unbundling" of three obviously related, yet separate, segments of electricity production and delivery, namely: generation, transmission, and distribution.<sup>60</sup>

### 1. The Concept of Unbundling

Ensuring equal and non-discriminatory access to networks, which is key if open and competitive markets are to evolve, some agree has been achieved throughout unbundling.<sup>61</sup> The main reason behind introducing unbundling is the fostering of competition.<sup>62</sup> It is aimed to eliminate incentives or abilities to discriminate against competitors by means of their control of assets upstream or downstream from the transmission network.<sup>63</sup> In order to mitigate incentives for discriminating against competitors, and to increase equality in access to the market, it is necessary both to separate the transmission and distribution activities of a network business from its activities of production and supply (unbundling) as well as to ensure non-discriminatory access of third parties to the infrastructure such as networks, storage capacities or LNG terminals.<sup>64</sup> In other words, unbundling is imperative to eliminate the influence of the VIUs in operating the transmission networks to enable competition, third party access, and development of the facilities.

There are several benefits of unbundling which need to be taken into consideration. The benefits of this concept are as follows:<sup>65</sup> (i) improving competition; (ii) improving quality of regulation; and (iii) improving performance of the network. However, the success of this concept in securing energy supply heavily relies on

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petition. Interaction between Sector-Specific Regulation and EU Competition Rules. Third Legislative Package," *Common Law Review Vol. 13* (2014): p.62.

<sup>58</sup> Philip Andrews-Speed and Robert Pritchard, "Eight Principles of Electricity Industry Reform," *International Energy Law & Taxation Review Vol. 1* (2001): p.11.

<sup>59</sup> Mark Thatcher, "From Industrial Policy to a Regulatory State: Contrasting Institutional Change in Britain and France" in Jack Hayward and Anad Menon (ed), *Governing Europe* (Oxford University Press), p.316.

<sup>60</sup> Charles H. Koch Jr., "Collaborative Governance in the Restructured Electricity Industry," *College of William & Mary Law School Faculty Publications Paper 47* (2005): p.593 available at <http://scholarship.law.wm.edu/facpubs/47>, accessed on March 7, 2016.

<sup>61</sup> Nowak, *op.cit.*, p.3693.

<sup>62</sup> Zafirova, *op.cit.*, p.30.

<sup>63</sup> Cameron, *Competition in Energy Markets, op.cit.*, p.32.

<sup>64</sup> Nowak, *op.cit.*, p.3692.

<sup>65</sup> Zafirova, *op.cit.*, p.31.

the assumption that the Transmission System Operator (TSO) is able to deliver its assigned responsibilities with a high level of integrity, accountability, transparency and professionalism. After all, the TSO is under obligation to operate and develop the transmission system to ensure that the electricity supply can be delivered on real time basis to end consumers. Therefore, the Government needs to ensure the effectiveness of national regulatory regime through *ex-ante* regulation and *post ante* regulation through competition law.

## 2. Third Party Access ('TPA') to the Networks

Networks can be broadly defined to include everything that occurs between the initial extraction or capture of an energy resource and its final use by a consumer.<sup>66</sup> As a regulatory tool, TPA constitutes the key to the liberalization of the electricity market in Europe.<sup>67</sup> The concept broadly refers to the possibility for electricity suppliers (e.g. independent power producers, trading companies) and/or customers (e.g. domestic or industrial purchases) to make use of electricity grids that do not own or control in order to sell or buy electricity.<sup>68</sup>

Competition can be promoted in the generation/production and the supply side of the vertical integration, transmission and distribution segments remain natural monopolies that hinder market mechanism.<sup>69</sup> For such reason, non-discriminatory and equal access to the electricity and gas transmission and distribution networks is crucial for competition to evolve.<sup>70</sup> The absence of such elements would create an enormous entry barrier for new players and would severely hamper the development of a competitive market.<sup>71</sup>

However, as of today, electricity supply networks are facing enormous challenges that need to be overcome in order to ensure supply in the future.<sup>72</sup> Energy transmission networks have monopolistic behavior due to limited infrastructures to transport energy from generation to final costumers. Due to this factor, access to the network by a third party is an important element for broadening energy market by allowing access to the system to those intending to invest in the market.<sup>73</sup> The obligation is vested in the TSO to ensure non-discriminatory access to the network by third parties.<sup>74</sup> Third party access then has an impact on energy security by increasing supply of energy corresponding to demands as well as increase competition which is consequently bound to reduce the price of energy to the affordability of final consumers. Therefore, it can be argued that TSO plays an important role when opening the system to third parties which will ensure that the system capacity to carry or store energy is utilized to the maximum extent of capacity and hence stimulate investment in the generating

<sup>66</sup> Zillman, *op.cit.*, p.9.

<sup>67</sup> Andras Palasthy, "Third Party Access in the Electricity Sector: EC Competition Law and Sector-Specific Regulation," *Energy and Natural Resources Law Vol. 20 No. 1* (2002): p.1.

<sup>68</sup> *Ibid.*

<sup>69</sup> Nowak, "Equal Access to the Energy Infrastructure...", *op.cit.*, p.3691.

<sup>70</sup> *Ibid.*, p.3692.

<sup>71</sup> *Ibid.*

<sup>72</sup> Mathias Wieser, "Unbundling – A Disturbing Factor in Intelligent Electricity Distribution Networks?" *Renewable Energy Law and Policy Review Vol. 3 No. 1* (2012): p.42.

<sup>73</sup> EU Directive 2005/89/EC Para 16.

<sup>74</sup> Regulation (EC) No. 715/2009 of The European Parliament and of the Council of 13 July 2009 on Conditions for Access to The Natural Gas Transmission Networks and Repealing Regulation (EC) No. 1775/2005 [2009] OJ L 211/36 Articles 4 & 12.

sector of energy.<sup>75</sup>

### 3. Anti-Competition Law

As described above, the sector is currently undergoing the process of transformation from a monopoly industry to a competitive market. Taking the EU electricity market as an example, it is clear that as a result, the competitors on the electricity market are exposed to two-fold regulation affecting competitive conditions: sector-specific (*ex-ante*) regulation and (*ex-post*) competition regulation whereby the latter involves interaction between regulatory bodies: the central policy maker (the Commission) on the one hand, and National Regulatory Authorities and National Competition Authorities on the other.<sup>76</sup>

The mindset that competition law alone is sufficient to make network-bound electricity and gas markets effectively flourish is simply wrong.<sup>77</sup> Rather than that, regulating for competition by providing a set of explicit common rules (*ex-ante*) has been a prerequisite for the achievement of energy market reform.<sup>78</sup> Competition and regulation are more complementary than substitutes.<sup>79</sup> If the TSO abuses its dominant position in the transmission system, there will be no incentive to energy generators to increase capacity of generation or third parties to invest in the market. Increase in third party access to the system would stimulate research, innovation and investment in new transmission networks to sustain the capacity available and manage congestion thus enabling sufficient supply of energy to the market. Therefore, it can be argued that competition law is an effective tool to stop infringement caused by VIUs which abuse their dominant position in the energy market.

## IV. Indonesia's Latest Development in the Electricity Sector

With economic growth rates ranging between 6-7% predicted in the near future, Indonesia is expected to face both opportunities as well as challenges.<sup>80</sup> A number of inputs are required to sustain such growth rates, including access to affordable, reliable energy services.<sup>81</sup> However, Indonesia's electricity sector is facing numerous challenges in its development, including (i) a mismatch between the availability of primary energy resources, whereby the supply of energy is located mostly outside Java and Bali; (ii) in 2012, the percentage of oil for producing electricity (in relation to fuel mix) was still relatively high (15.92%) despite the abundance of coal resources within the country; and (iii) limited availability of government funds and other resources to finance the construction of new power plants as well as transmission and distribution networks.<sup>82</sup> The latter challenge will become the main focus of this

<sup>75</sup> European Commission, 'Interpretative Note in Directive 2009/73/EC Concerning Common Rules for the Internal Market in Natural Gas,' *Commission Staff Working Paper* (2010).

<sup>76</sup> Hrabčáková, *op.cit.*, p.65.

<sup>77</sup> Cameron, *op.cit.*, p.637.

<sup>78</sup> *Ibid.*

<sup>79</sup> Havriš, *op.cit.*, p.26.

<sup>80</sup> USAID Indonesia, "Indonesia Energy Sector and Strategic Program Assessment," February 28, 2013, p.7 [http://pdf.usaid.gov/pdf\\_docs/PA00JZ5S.pdf](http://pdf.usaid.gov/pdf_docs/PA00JZ5S.pdf), accessed on March 10, 2016.

<sup>81</sup> *Ibid.*

<sup>82</sup> APEC, "Peer Review on Low Carbon Energy Policies In Indonesia: Final Report," 20 November 2013, p. 4 [http://apecenergy.tier.org.tw/database/db/ewg46/1\\_Meeting/11c\\_PRLCE\\_in\\_Indonesia.pdf](http://apecenergy.tier.org.tw/database/db/ewg46/1_Meeting/11c_PRLCE_in_Indonesia.pdf), accessed on March 10, 2016.

article which will be fully analyzed below.

### A. Indonesian Electricity Sector: *De Jure*

The modern era for the power sector in Indonesia commenced with the 1985 Electricity Law allowing limited private participation in power generation.<sup>83</sup> Essentially, the model involved allowing for private investment in power generating assets as Independent Power Producers ('IPP's) licensed to sell their power solely to the state-owned electricity company, PLN, pursuant to Power Purchase Agreements ('PPA's).<sup>84</sup> As some research indicates, there was a significant growth of at least 65% by 1999.<sup>85</sup> Therefore, PLN as the sole purchaser of the power output became the key driver of the commerciality of the entire value chain. The IPP program however was effectively frozen in the late 1990s when the Asian financial crisis hit, which in its turn resulted in PLN suffering financially, especially as a result of the devaluation of the rupiah.<sup>86</sup> Many of the IPPs that were yet to produce at the time were abandoned while others were only able to continue with their PPAs renegotiated down to a much lower off-take price.<sup>87</sup> Overall, a significant degree of investor confidence in the sector was lost.

Given such deteriorating conditions, PLN was left in a position where it could not fund investment independently to satisfy the country's consistently rising demand for electricity. In 2002, the Government introduced electricity reforms largely through the enactment of the 2002 Electricity law under which power business areas were divided into competitive and non-competitive areas; the former allowing for private participation in the generation and retailing areas of the electricity value chain.<sup>88</sup> The law also allowed for electricity tariffs to be determined by the market and for independent regulation through the establishment of the Electricity Market Supervisory Agency.<sup>89</sup> However, in 2004 the Constitutional Court ruled the 2002 Electricity Law to be unconstitutional largely in light of electricity's status as a social necessity and the constitutional requirement for its delivery to remain exclusively with a State owned agency.<sup>90</sup> As a result, the Court effectively re-installed the previous 1985 Law and as a further consequence, from the period of 1999-2004 there was very little private investment of any sort in new power projects. This phenomenon will be the center of attention for further discussion in this article.

#### 1. Article 33 of the Constitution as a Guarantee to Secure the National Electricity Sector

The famous Article 33 the Constitution of 1945 states that "branches of production, important to the state and that impact the livelihood of the majority of the people

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<sup>83</sup> PWC, *op.cit.*, p.8.

<sup>84</sup> *Ibid.*

<sup>85</sup> The World Bank and AusAID, "One Goal, Two Paths: Achieving Universal Access to Modern Energy in East Asia and the Pacific" p.110. [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/09/28/000356161\\_20110928014207/Rendered/PDF/646690PUB0one000Box361543B00PUBLIC0.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/09/28/000356161_20110928014207/Rendered/PDF/646690PUB0one000Box361543B00PUBLIC0.pdf), accessed on March 10, 2016.

<sup>86</sup> Asian Development Bank, *loc.cit.*

<sup>87</sup> *Ibid.*

<sup>88</sup> Indonesia, *Law No. 20 Year 2002, op.cit.*, art. 17(1) and art. 21(3).

<sup>89</sup> *Ibid.*, Chapter XIII.

<sup>90</sup> PWC, *loc.cit.*

must be controlled by the state and ... that the riches contained in the earth and the waters constituting the territory of the Republic of Indonesia must be used for the maximum benefit of the people."<sup>91</sup> The founding fathers of the nation believed that only if the state or a state enterprise representing the state controls would the result be in the best interest of the people.<sup>92</sup> This was the prevailing belief at the time and, to some extent, is still today.<sup>93</sup> Additionally, the Elucidation on Article 33 also states, however, that only companies that do not affect the livelihood of the majority of the population may be operated privately.<sup>94</sup>

It further raises the question as to what form should state intervention take? The People's Consultative Assembly ('MPR') highlighted two main activities:<sup>95</sup> (i) the State should ensure that all Indonesians have the opportunity to participate in the economy and to share in its spoils, including those arising out of the exploitation of natural resources, with priority for cooperatives and small-medium enterprises over individual endeavors; (ii) The state should protect the weak from domination by the economically strong, whether domestic or foreign. This interpretation by the Member, presumably, thought that the free market could not appropriately guarantee people's welfare and thus leading to the misinterpretation of the principles, rather than the principles themselves, that had caused most of the economic problems in Indonesia.<sup>96</sup>

## 2. The Enactment of National Energy Policy (KEN), General National Energy Plan (RUEN) and General National Electricity Plan (RUKN)

In exercising the mandate of Article 33 Paragraph 3 of the 1945 Constitution, Law No. 30 Year 2007 on Energy instructs the government, through the National Energy Council ('DEN'), to design National Energy Policy ('KEN') until the year 2050 by taking into account several considerations such as: (i) energy availability to fulfill national needs; (ii) priority of energy development; (iii) utilization of national energy resources; and (iv) supporting national energy reserves.<sup>97</sup> The intention of drafting such policy was based on the assumption that during such long term period all the hindrances would be overcome along the way, transforming the government's traditional mindset of 'business as usual' into a more sustainable one (i.e. what and which current energy potential should be optimized, and what needs to be achieved in the long run).<sup>98</sup> The said policy was subsequently used as guideline for DEN to enact: (i) the General National Energy Plan ('RUEN') as a technical follow up on KEN

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<sup>91</sup> Tengku Nathan Machmud, *The Indonesian Production Sharing Contract: An Investor's Perspective*, (The Hague: Kluwer Law International, 2000), p.23.

<sup>92</sup> *Ibid.*

<sup>93</sup> This can be seen from the Constitutional Court's Ruling on Oil and Gas Law No. 22 Year 2001, which caused the dissolution of BP Migas as a state representative in relation to Production Sharing Contract because it had a lack of control over Indonesian petroleum operations.

<sup>94</sup> See the Explanatory Memorandum attached to the 1945 Constitution.

<sup>95</sup> Simon Butt and Tim Lindsey, "Who Owns the Economy? Property Rights, Privatization, and the Indonesian Constitution: The Electricity Law Case" in *Property and the Law in Energy and Natural Resources*, (Oxford: Oxford Scholarship Online, 2010), p.242.

<sup>96</sup> *Ibid.*, p.243.

<sup>97</sup> Indonesia, *Undang-Undang Tentang Energi (Law regarding Energy)*, UU No. 30 Tahun 2007, LN No. 96 Tahun 2007 (Law No. 30 Year 2007, SG No. 96 Year 2007), Article 11.

<sup>98</sup> Rinaldy Dalimi, "Perkembangan Penyusunan RUEN dan Pedoman Penyusunan RUED" (*The Development of Drafting RUEN and RUED*). <http://fkpe2015.den.go.id/index.php/kegiatan/downloaddokumen/5>, accessed on July 17, 2016.



in achieving KEN's long term goals;<sup>99</sup> and (ii) the General National Electricity Plan ('RUKN') covering areas of generation, transmission and distribution of electricity.<sup>100</sup> The government has recently established the President Regulation No. 1 Year 2014 on Arrangement of the National Energy Policy Guidelines with the outlook to maintain the government's consistency between the systematics and substance in drafting the RUEN.

Thus far, the government has predicted that by the year 2025 energy demand in Indonesia would reach 228 MTOE (Million Tons Oil Equivalent) and the government will be encouraged to provide 337 MTOE of energy supply.<sup>101</sup> A great number of plans have been drafted and established, yet the technical implementation of such plans is still absent in practice. We will now review the previous government efforts to meet energy demands, especially in the electricity sector.

## B. Indonesian Electricity Sector: *De Facto*

### 1. Current Capacities and Facilities

According to *Perusahaan Listrik Negara* ('PLN')'s executive summary of the electricity supply business plan for 2015-2024, Indonesia's electricity conditions as of September 2014 can be described as follows:<sup>102</sup>

- a. Installed capacity of power plants for both PLN and Independent Power Producers ('IPP's) in Indonesia was 43,457 MW which consisted of 33,499 MW in Java-Bali, 6,166 MW in Sumatra and 3,842 MW in East Indonesia;
- b. The total number of renting power plants was 3,640 MW;
- c. The generating capacity in Sumatra and East Indonesia was barely sufficient to meet the electricity needs of the community, thus, potential shortfall could occur whenever there was a disruption to the power supply or a plant needed to undergo routine maintenance.

The estimated amount of investment needed by Indonesia for developing power generation, transmission and distribution lines and facilities in order to meet the expected demand in the future is approximately USD107.<sup>93</sup> billion, out of which USD77.<sup>98</sup> billion for developing additional capacity of power plants, USD15.<sup>98</sup> billion for transmission and USD13.<sup>97</sup> billion for electricity distribution.<sup>103</sup> These numbers clearly indicate that PLN and the Government of Indonesia have to carry a heavy burden to satisfy domestic electricity demand. Expansion in the Indonesian power subsector over the past decade has not kept up with increased power demand that averaged about 8% over the last five years.<sup>104</sup> Generation capacity additions are delayed, and underinvestment and infrastructural deficits extend to the transmission

<sup>99</sup> Dewan Energi Nasional, "Laporan Dewan Energi Nasional 2014" (*Report of the National Energy Council 2014*), p.61. <http://den.go.id/index.php/publikasi/download/22>, accessed on July 17, 2016.

<sup>100</sup> Indonesia, *Undang-Undang Tentang Energi (Law regarding Energy)*, UU No. 30 Tahun 2007, LN No. 96 Tahun 2007 (Law No. 30 Year 2007, SG No. 96 Year 2007), Article 1 (9) & 7 (1).

<sup>101</sup> Grace D. Amianti, "Energy Design to Boost Growth, Efficiency, Competitiveness" <http://www.thejakartapost.com/news/2015/08/11/energy-design-boost-growth-efficiency-competitiveness.html>, accessed on July 17, 2016.

<sup>102</sup> Simon Butt and Tim Lindsey, *op.cit.*, p.1.

<sup>103</sup> APEC, *op.cit.*, p.5.

<sup>104</sup> Asian Development Bank, "Program Implementation Document: Perusahaan Listrik Negara, Electricity Grid Strengthening – Sumatra Program (Guaranteed by the Republic of Indonesia)," November 2015, p.1. <http://www.adb.org/sites/default/files/linked-documents/49080-001-pid-rev.pdf>, accessed on March 10, 2016.



and distribution systems.<sup>105</sup> Indices for power system stability and reliability are showing deteriorating trends, and there have been recent incidences of blackouts in Sumatra and Java.<sup>106</sup>

## 2. Indonesia's Efforts to Boost Supply: PPP and Fast Track Program (Phase I, and II)

The government recognizes that business-as-usual will not lead to increased access to reliable and cost-effective supplies of electricity.<sup>107</sup> As a consequence, it imposed the Public-Private Partnership ('PPP') scheme in 2005 and enacted the two stages of Fast Track Program ('FTP') since 2006 in order to incentivize and attract investors to spend their money in Indonesia's power projects.<sup>108</sup> Brief description of the concept of PPP and FTP will be provided in this article.

### a. The PPP Concept in Indonesian Power Projects

The concept of IPP originated in the US law in the late 1990s and early 2000s which was described to denote government contracts in which the private sector takes on more responsibility than has been customary in the past for the delivery of the services contracted for.<sup>109</sup> Some see it as a new governance tool that will replace the traditional method of contracting for public services through competitive tendering.<sup>110</sup> Others see PPP as a new expression in the language of public management, one intended to include older, established procedures of involvement of private organizations in the delivery of public services.<sup>111</sup> In either of the definitions used, PPP is a concept which promises a new way of managing and governing organizations that produce public services.<sup>112</sup>

Generally, the difference between business-as-usual and PPP in power projects is that, in PPP, the government gives its guarantee to such projects through PT Penjaminan Infrastruktur Indonesia (Persero) (Indonesia Infrastructure Guarantee Fund).<sup>113</sup> This concept is laid down in Presidential Regulation No. 38 of 2015 on Cooperation between Government and Business Entities in the Provision of Infrastructure and Bappenas Regulation No. 4 of 2015 on Guidelines for Cooperation Between Government and Business Entities in the Provision of Infrastructure.

In sum, PPP in power projects consists of 5 big categories of shareholders, which

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<sup>105</sup> *Ibid.*

<sup>106</sup> *Ibid.*

<sup>107</sup> Asian Development Bank, *loc.cit.*

<sup>108</sup> PWC, *op.cit.*, p.9.

<sup>109</sup> Dominique Custos and John Reits, "Public-Private Partnership", *The American Journal of Comparative Law* Vol. 58 (2010): p.555.

<sup>110</sup> Graeme A. Hodge and Carsten Greve, "Public-Private Partnerships: An International Performance Review," *American Society for Public Administration* Vol. 67 No. 3, (2007): p.545.

<sup>111</sup> See Stephen Linder, "Coming to Terms with The Public-Private Partnership: A Grammar of Multiple Meanings," *American Behavioral Scientist* Vol. 43 No. 1, (1999): pp.35- 51.

<sup>112</sup> *Ibid.*

<sup>113</sup> Indonesia Infrastructure Guarantee Fund or IIGF was established by the government of Indonesia in 30<sup>th</sup> December 2009. It is a state-owned company managing the provision of risk guarantees for infrastructure projects through Public Private Partnership (PPP) schemes. See IIGF, "Annual Report 2014: Full Readiness to Support Indonesian Infrastructure," (8 May 2015): p. 38 <http://www.iigf.co.id/media/kcfinder/docs/ar-iigf-2014-bilingual-fa-05-08-2015-compressed.pdf>, accessed on March 11, 2016.

are as follows<sup>114</sup>: (i) Providers of Capital & Guarantees; (ii) Government Policy Makers, Regulators, and Counterparties; (iii) Service Off-takers; (iv) Third Party Service Providers; and most importantly, (v) Project Companies. PLN, the state-owned power utility, no longer holds monopoly for the provision of electricity infrastructure (power generation, transmission and distribution). However, PLN may continue to function as off-taker for power generation. Business entities may participate in this sector through competitive tendering.<sup>115</sup>

The first PPP was the Central Java Coal-Fired Power Plant (CJPP) with a proposed capacity of 2 x 1000 MW and an estimated investment of USD4 billion in 2011.<sup>116</sup> This project also provided the first utilization of the IIGF guarantee (issued in October 2011); however, the consortium of the J-Power, Adaro Energy and Itochu groups in 2014 declared force majeure stating that circumstances and events delaying the land acquisition process were not within their control.<sup>117</sup> A research shows that there are several gridlocks to Indonesia's PPP, namely as follows:<sup>118</sup> (i) the lack of transparency of the manner in which projects are selected and prioritized as PPPs; (ii) PPPs are still viewed primarily as a means of financing, and often perceived as too complex due to the extensive coordination required for implementation; (iii) many government contracting agencies lack the right set of skills; and (iv) land acquisition.

### **b. The Two Phases of FTP**

The FTP project was enacted by President Yudhoyono. In 2006, the Government announced stage one of a "fast track" program ('FTP I') to build the first 10,000 MW which was focused entirely on the construction of coal-fired power plants, mostly by PLN.<sup>119</sup> Followed by a second program ('FTP II') in early 2010 whereby each program was aimed to accelerate the development of 10,000 MW of generating capacity with FTP II (launched in early 2010 under Presidential Regulation No. 4/2010 amended most recently by PR No. 194/2014 and revised by MoEMR Regulation No. 40/2014) geared towards IPPs and renewable energy as cleaner energy sources.<sup>120</sup> However, the new five-years 35 GW program announced by President Joko Widodo has superseded the FTP II and all projects planned for completion between 2015 and 2019 have been rolled over into the 35 GW program<sup>121</sup>

At the end of Phase I, PLN had realized 63% of the total planned capacity by end of 2013 and targeted to complete it by 2015, a delay from the originally scheduled completion by the year of 2010.<sup>122</sup> In the case of FTP II, with target capacity of 17,900

<sup>114</sup> Coordinating Ministry of Economic Affairs, "Public-Private Partnership (PPP) Investor's Guide: What Private Investors Should Know About Investing in Indonesia's Infrastructure," (April 2010), p. 4. <http://www.bi.go.id/en/iru/presentation/other/Documents/6b3a71af6bbd481ca788477c2cc107a1PPPinvestorguide.pdf>, accessed on March 11, 2016.

<sup>115</sup> *Ibid.*, p.9.

<sup>116</sup> PWC, *op.cit.*, p.36.

<sup>117</sup> *Ibid.*

<sup>118</sup> Diaan – Yi Lin, "Can Public Private Partnerships Solve Indonesia's Infrastructure Needs?" McKinsey's & Company p. 2 – 3. <http://www.mckinsey.com/~media/McKinsey%20Offices/Indonesia/PDFs/Can%20PPPs%20solve%20Indonesias%20infrastructure%20needs.ashx>, accessed on March 11, 2016.

<sup>119</sup> PWC, *op.cit.*, 9.

<sup>120</sup> *Ibid.*

<sup>121</sup> *Ibid.*

<sup>122</sup> Ernst & Young, "Opportunities and Challenges of The Indonesian Electrification Drive," (March 2015), p.3. [http://www.ey.com/Publication/vwLUAssets/opportunities-and-challenges-of-the-indonesian-electrification-drive-february-2015/\\$FILE/ey-opportunitiesand-challenges-of-the-indonesian-electrification-drive.pdf](http://www.ey.com/Publication/vwLUAssets/opportunities-and-challenges-of-the-indonesian-electrification-drive-february-2015/$FILE/ey-opportunitiesand-challenges-of-the-indonesian-electrification-drive.pdf), accessed on March 13, 2016.

MW it was scheduled to be completed by the year 2016.<sup>123</sup> However, it is yet to be in operation and various projects are estimated to only begin operation in 2016 at the earliest due to the following causes:<sup>124</sup> (i) licensing issues; (ii) land clearing; (iii) financing, delay in government-backed loan; (iv) construction and various technical difficulties. In view of the foregoing, it is an undeniable fact that the second FTP is still is not adequate to meet Indonesia's increasing demand for energy.

## V. REGULATED MARKET VERSUS COMPETITION: LESSON LEARNED FROM THE EU

### A. Constitutional Court Decisions on Electricity Law: Decision No. 001-021-022/PUU-I/2003 and Decision No. 149/PUU-VII/2009

#### 1. Decision No. 001-021-022/PUU-I/2003

In its decision, the Constitutional Court submitted that restructuring and unbundling in the electricity sector are deemed to be unprofitable and inefficient and resulted in a burden the government has to bear.<sup>125</sup> It further held that Articles 16, 17(3) and 68 of the Law, which sought to introduce competition and unbundling in the electricity sector, conflicted with Article 33(2) of the Constitution because they would, in fact, result in the relinquishing of control in the sense intended by the said Article and as of the consequences declared to be invalid.<sup>126</sup> The most important aspect of the Constitutional Court's decision was that merely regulating the electricity sector was insufficient to constitute 'control by state' as required by Article 33(2).<sup>127</sup>

The interpretation of the term 'control by state' is thus indeed at the heart of this decision. Each of the Parties have a different perspective about the manner in which the State exercises control over electricity. The State Enterprises Minister interpreted 'controlled by the State' to mean 'regulated, facilitated and operated by the State', but dynamically moving towards the state only regulating and facilitating.<sup>128</sup> Referring to the testimony of Prof. Dr. Harun Alrasid who interpreted 'controlled by the state' to mean 'owned' by the state.

The Court itself subsequently took the view that Article 33 required more than ownership over important branches of production in the civil law sense because 'state control' exists within the Constitution framework of 'public law, political democracy and economic democracy' (which it did not define).<sup>129</sup> The Court argued that the civil concept of 'ownership' was therefore insufficient because it did not, in itself, necessarily provide the welfare of the people or social justice, as is required in the Preamble to the Constitution.<sup>130</sup>

However, the Court engaged in 'historical' approach to interpret the term 'control' under Article 33(2) of the Constitution. Referring to Mohammad Hatta as one of

<sup>123</sup> *Ibid.*

<sup>124</sup> *Ibid.*

<sup>125</sup> Constitutional Court of Republic of Indonesia, "Decision No. 001-021-022/PUU-I/2003," *op.cit.*, p.347.

<sup>126</sup> Simon Butt, *op.cit.*, p.246.

<sup>127</sup> *Ibid.*, p.247.

<sup>128</sup> Constitutional Court of Republic of Indonesia, "Decision No. 001-021-022/PUU-I/2003," *op.cit.*, p.332.

<sup>129</sup> Simon Butt, *op.cit.*, p.249.

<sup>130</sup> *Ibid.*

the founding fathers, 'The vested goal under Article 33 of the Constitution is that the production (of natural resources) is to be governed by the government with foreign capital incentives which is regulated by our Government.'<sup>131</sup> To do so was, of course, an act that reflected the Explanatory Memorandum of the Constitution as it stood before it was deleted during the amendment process and it severely strained the limits of the Court's authority, given that the whole purpose of deleting the Explanatory Memorandum was precisely to prevent it from being used to interpret the Constitution.<sup>132</sup> The said approach was too narrow to be used in determining such complexity of the industry.

In the author's perspective, the most essential element in interpreting the Law is being focused on how to bring the greatest benefit to the people, rather than focusing on the element of 'controlled by the State.' Indeed, Article 33 needs to be interpreted using a more contextual approach by constructing an interpretation that is fully reasoned, matches the factual circumstances of the current situation and explains the wording to the fullest extent possible. It simply means not only look at it solely from the perspective of the past, but also considering present and future situations to obtain the greatest benefit out of production for the people.

## 2. Decision No. 149/PUU-I/2009

In 2009, the current Electricity Law was challenged yet again by the PLN labor union due to the enactment of Law 30 Year 2009 on Electricity which opens up private participation in power supply and distribution, ending PLN's monopoly.<sup>133</sup> The idea was to, again, challenge the unbundling concept contained therein. The petitioner argued that Article 10 of the Law contains the provision 'may be integrated' which implies that it may or may not be integrated or it may be unbundled and this violates the Constitution.<sup>134</sup> To take a look at the petitioner's argument, it was similar to the argument raised by the petitioner in the former Decision No. 001-021-022/PUU-I/2003, which also challenged the unbundling concept requesting for it to be deemed unconstitutional. However, in the latest Decision No. 149/PUU-I/2009, the Court rejected the petitioner's submission in its entirety.<sup>135</sup>

Indeed, the Court referred to and highlighted the former Decision; however, it came up with a completely different treatment of the unbundling concept. In its decision, it allowed the unbundling concept under Law No. 30 Year 2009 based on the Court's interpretation of the former Decision, which can be summed up as follows:<sup>136</sup> (i) the Government as the majority shareholder (of PLN), still exercises its control on the decision making level; (ii) Article 33 of the Constitution does not prohibit privatization, as long as such privatization does not eliminate the control of the State; (iii) similarly, Article 33 of the Constitution does not prohibit competition among the providers either as long as such competition does not eliminate the control of

<sup>131</sup> Constitutional Court of Republic of Indonesia, "Decision No. 001-021-022/PUU-I/2003," *op.cit.*, p.331

<sup>132</sup> Simon Butt, *op.cit.*, p.250.

<sup>133</sup> Alfian, "PLN Labor Union to Challenge New Law on Electricity," *The Jakarta Post* (January 20, 2010), <http://www.thejakartapost.com/news/2010/01/20/pln-labor-union-challenge-new-law-electricity.html>, accessed on March 14, 2016.

<sup>134</sup> *Ibid.*

<sup>135</sup> Constitutional Court of Republic of Indonesia, "Decision No. 149/PUU-I/2009," *op.cit.*, p.97.

<sup>136</sup> *Ibid.*, p.91.

the state including the control to govern (*regelendaad*), to manage (*bestuursdaad*), and to supervise (*toezichtoudensdaad*) existing important branches of production for the greatest benefit of the People; and (iv) emphasizing the unbundling concept implemented by various companies under Article 16 of Law No. 20 Year 2002 will only lead to the deterioration of PLN and the non-sustainability of electricity supply to the people.<sup>137</sup>

There is a noteworthy point raised in this Decision. Fundamentally, there has been an inconsistency between the former and the latter Decisions in the context of the unbundling concept in the electricity sector. In the former Decision it was strictly stipulated that electricity was considered as a public utility which falls under the category of existing important branches of production and it should therefore be controlled ('owned') by the State. In contrast to such submission, the latter Decision interpreted the Article 33 of the Constitution to be more flexible, stating that Article 33 does not prohibit unbundling and competition in the electricity sector because the unbundling concept in Law No. 30 Year 2009 is not the same concept as the one in Law No. 20 Year 2002. This, however still constitutes the separation of the electricity industry and generally falls under the same concept of unbundling. Even if the Court's basis for this argument was that under the Law No. 30 Year 2009 stipulates that the provision of pricing mechanism is regulated by the State. It clearly stipulates that it is sufficient to exercise control over electricity without having to own the commodity itself.

### **B. Unbundling and Competition in the Electricity Sector Are Proven to Provide Cheaper and Better Electricity Supply in Terms of Quality**

Unbundling alone, however, is not a panacea and it should be seen in the context of measures in the area of security of supply, investment incentives, and regulation of the energy sectors by the national competent bodies and it also needs to be complemented and reinforced by the application of competition laws.<sup>138</sup> The government is under the obligation to support the national regulatory regime in order to enable competition in the market. The monopolistic nature of this industry is bound to pose a burden on VIUs to operate and develop the infrastructure. An example from Indonesia's current system is that PLN still remains heavily subsidized and functions as the grid operator which possesses and controls the national monopoly on the transmission and distribution system.<sup>139</sup> As a consequence, it poses a burden on the government to subsidize such operation and customers as PLN failed to perform its obligation as a TSO to develop the infrastructure in order to secure the energy supply in the long run. In the new environment, PLN is challenged to manage its risks and margins. The disparity between highly volatile electric commodity prices and the more stable nature of domestic power prices is overshadowed by the need to consider a multitude of socio-economic and geopolitical vulnerabilities.<sup>140</sup>

There are several available strategic options for PLN as the electricity market continues to evolve and transform, including distribution system optimization,

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<sup>137</sup> *Ibid.*

<sup>138</sup> *Ibid.*, p.36.

<sup>139</sup> Frengky Chaniadi and Fadli Rahman, "Why Restructuring the Indonesian Electricity Market is Imperative," *The Jakarta Post* (January 31, 2016), <http://www.thejakartapost.com/news/2016/01/30/whyrestructuringindonesianelectricitymarketimperative.html>, accessed on March 4, 2016.

<sup>140</sup> *Ibid.*

accelerating technology enhancement (i.e. smart grid infrastructure), demand management programs (i.e. smart meters) and access to new capital.<sup>141</sup> Such options will be less likely to be achieved if there is no support from the Government to ensure that the national regulatory regime in the country is sustained and in favor of PLN to unbundle the industry. The restructuring of the Indonesian electricity market is imperative. The resulting tangible benefits include, but are not limited to, reduced generation costs, more competitive electricity prices and enhanced national competitiveness as a result of improved standard of living and social safety net programs (i.e., job creation, food security, education, health and community empowerment) that Indonesian people will embrace.

## VI. CONCLUSION

This article has described the latest conditions (both *de facto* and *de jure*), examples of countries successfully implementing the liberalization of the electricity industry and an analysis of the Indonesian Constitutional Court's Decision on the annulment of Law No. 2002 on Electricity. The unique characteristics of this industry compelled the Government and its related stakeholders to reconsider deregulation and complete restructuring of this essential industry in order to meet the country's demand for economic growth. To achieve such goal, it is noteworthy that the same perception and awareness of this urgency are acquired and acknowledged by all layers of related stakeholders, be it the Government of Indonesia, the Constitutional Court, PLN as well as the Indonesian people in general.

Research conducted on power projects in an emerging economy such as Indonesia generally relies on a significant proportion of finance from international markets to be viable.<sup>142</sup> The results of this analysis suggest the following:<sup>143</sup> (i) electricity access is a matter of policy, not a consequence of wealth and settlement patterns; and (ii) while the challenge of electrification is most acute in eastern Indonesia, efforts to achieve universal access must be made nationwide. There are several strategies available to meet such challenges, such as:<sup>144</sup> (i) finding ways to minimize the costs of serving both and existing electricity connections and (ii) develop standard legal and procedural structures to reduce the costs of putting new solutions together.

The Government of Indonesia has set an ambitious goal through its National Energy Plan, General National Energy Plan, General National Electricity Plan and Electricity Supply Business Plan 2015-2024. However, without complete restructuring and deregulation in the said sectors enabling investment, such goal is deemed to be only an ideal plan on paper. Prompted by an intrinsic motivation behind the restructuring of the Indonesian electricity market and when market deregulation is prudently structured, the combination of competitive services, asset divestiture, and new

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<sup>141</sup> *Ibid.*

<sup>142</sup> Gigih Udi Atmo, Colin Fraser Duffield and David Wilson, "Structuring Procurement to Improve Sustainable Outcomes of Power Plant Projects," *Energy Technology and Policy Vol. 2 No. 1* (2015): p.54.

<sup>143</sup> Castlerock Consulting, "ADB TA 8287-INO: Scaling Up Renewable Energy Access in Eastern Indonesia, Achieving Universal Electricity Access in Indonesia Final Report July 8, 2015," p.xx. <http://cas-tilerockasia.com/sumba/Deliverable%20A%20-%20Electricity%20Access%20Final%20July%202015.pdf>, accessed on March 10, 2016.

<sup>144</sup> The World Bank, "Electricity for All: Options for Increasing Access in Indonesia," December 2005, p.20 – 21. [http://siteresources.worldbank.org/INTEAPASTAE/Resources/Electricity\\_for\\_All-Increasing\\_Access\\_in\\_Indonesia.pdf](http://siteresources.worldbank.org/INTEAPASTAE/Resources/Electricity_for_All-Increasing_Access_in_Indonesia.pdf), accessed on March 10, 2016.



investments should minimize the net cost of generation and result in competitive retail prices for electricity.<sup>145</sup> These conditions are expected to lead to better quality of electricity services and various choices of service providers will most likely improve the standard of living of Indonesians.<sup>146</sup> The time has never been more critical to advance an open electricity market in Indonesia in which retail competition and consumer choices are the new norms, not the exceptions.

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<sup>145</sup> Frengky Chaniadi and Fadli Rahman, *op.cit.*

<sup>146</sup> *Ibid.*



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