

# Competitive Electricity Market - From Theory to Practical Application in Vietnam

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**ABSTRACT**— *Vietnam power market is still in a state monopoly (both monopsony and monopoly). On the market, the Electricity of Vietnam Group (EVN) has the sole power buyer for thermal power plants, hydro power plants ..., and the seller is only for consumers on the electricity market. Consumers only have a choice to buy electricity sold by EVN. In this article, the authors mention the problem in a competitive electricity market based on the experience Vietnam electricity market reform in the countries of the world.*

Keywords— demand curve (D), the supply curve (S), marginal revenue (MR), marginal cost (MC), average expenditure (AE), the marginal expenditure (ME), the Electricity of Vietnam (EVN).

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## 1. INTRODUCTION

Competitive electricity market has been studied in a number of works in the world. In 2001, an empirical analysis was made by Steiner (IUCN) has examined the impact of regulatory reform retail prices for industrial customers as well as the ratio of prices for industrial and household electricity prices by using panel data for 19 OECD countries over the period 1986-1996. In their study, Steiner made a panel data analysis including electricity prices, the ratio of the power industry, capacity utilization rate and reserve power. Using these variables can help measure Steiner competition and cost effectiveness of reforms, besides, consider some reforms separate factors, including reform of the grid, wholesale from factory hydropower, allowing other companies involved in transmission and electricity market participation of private companies.

## 2. GENERAL ISSUES RELATED TO RESEARCH COMPETITIVE ELECTRICITY MARKET

Also in 2001, Bacon and Besant-Jones (UK) has tested two hypotheses in research its: 1 - National policy has a positive influence to reform the electricity market; 2 - The country risk negatively correlated with reform. The results support both hypotheses: the coefficient measurement indicators and policy risk factor for clear signs to reform the electricity market. In addition, they found a number of effects in the region, Latin American and Caribbean countries are more likely to reform in the countries of the Middle East and Africa, the ability to implement reforms less.

Five 2003 Ruffin (USA) studied the handling of institutional determinants of competitiveness, and the degree of ownership reform in the electricity market reform. The institutional reform is crucial to create a competitive electricity market, using various measures such as judicial independence, creating conflicts and changing distribution of economic awareness. The study used cross-sectional analysis of an OLS regression model with the number of observations in 75 developed countries and developing countries is the driving force generated by the electricity market reform in the industry 90 years of the twentieth century in most developed countries. Ruffin also use political institutions to explain the reform of the electricity market and the relationship between judicial independence, competition and other proprietary rights is ambiguous (ie, the coefficients are usually insignificant, or when significant signs of change between models). Besides, conflict distribution correlates with a higher degree of monopoly but the relationship between economic competition and private ownership are generally positive. The results also indicated that the relationship between judicial independence and reform. Moreover, economically showed a positive relationship with major reforms.

2004, Hattori and Tsutsui (Japan) has examined the impact of regulatory reform in the electricity price career. Like Steiner, a team of scientists have used panel data for 19 OECD countries, but for the period 1987-1999 and found that the expansion has the ability to lower retail prices for industrial, while the while increasing the price difference between industrial customers and households, and come to the conclusion, Grid reform does not necessarily reduce the

price that could lead to higher prices, reform impact on grid industry prices statistically significant. In addition, they found that the introduction of a wholesale power market will not necessarily reduce the cost, and can actually lead to higher prices, without exception, which is set a wholesale power market have led to a statistically significant higher power prices and can also increase the rate of industrial electricity prices compared to the price of household electricity. Finally, they discovered that a large portion of the privately owned industrial decline but can not alter the price ratio between industrial customers and households. At the same time introduced a wholesale spot market led to higher prices are not consistent with expectations from Steiner.

2009, Pollitt (English) refers to two other experimental studies and examine the impact of price reforms that later Ernst & Young and Thomas continued research in 2006. In the research report prepared for the Government figures and the Department of Trade and Industry (DTI) of the UK, the scientists from Ernst & Young has used a sample of EU-15 countries and has tried provides some policy implications for gas power with a large number of simple regression. Results show that liberalization reduces costs and improves profitability, and free market also increase price volatility, investment and market liberalization helps to provide power quality information reliable and safe

### 3. MARKET THEORY OF MONOPOLY AND MONOPSONY

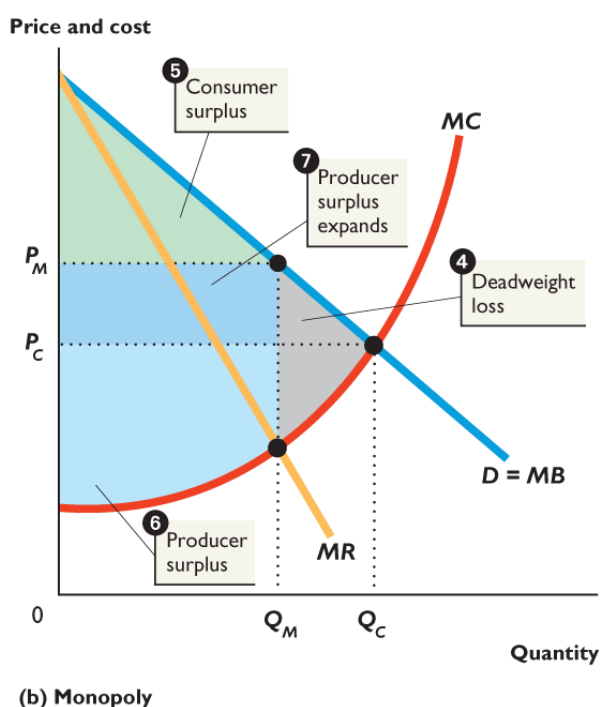


Figure 1: Model monopoly market

(Source: Vu Kim Dung, Pham Van Minh, *Microeconomics textbook*, publishers Labor - Social, 2012)

Figure 1 depicts monopoly market is characterized by: a multitude of buyers but only one seller in the market, the product has no close substitute goods, imperfect information and obstacle to market entry is extremely large. Currently in our country's electricity market is characterized by monopoly market, the market demand curve  $D$  of electric Vietnam represents the slope down to sell more electricity to reduce cost, marginal revenue  $MR$  line always lies below demand curve. To maximize profits, the monopolist decides to sell produce at the output when marginal revenue equal to marginal cost,  $MR = MC$ , so, the monopolist always maintain high prices and low yields to account for consumer surplus. State monopoly creates deadweight loss (DWL) on society. Section lose not only money will disappear by creating a monopoly. In Figure 1, the deadweight loss (DWL - Dead Weight Loss) is the area of the triangle cross section including the deadweight loss of consumer surplus (CS - Consumer Suplus) and the deadweight loss of producer surplus (PS - Producer Surplus.)

Figure 2 illustrates the monopsony market, this market is characterized by: countless sellers but only one buyer in the market, the product has no substitutes, no information perfect, very big obstacle to the entry and withdrawal from the market. In particular, the market demand curve slopes down  $D$ , the supply curve is the average road expenditure (AE), spending the marginal road (ME). To maximize profits, the monopolist will decide to buy buy at the output  $Q^*$ , where  $ME = D$ , and the price is  $P^*$ . Thus, the buyer will purchase the exclusive production and lower prices than a

competitive market. If competitive market, purchase price and output respectively  $P_1$ ,  $Q_1$ . Thus, the monopsony also creates deadweight loss (DWL) on society. Electricity market in Vietnam is characterized by monopsony market that EVN is the only buyer.

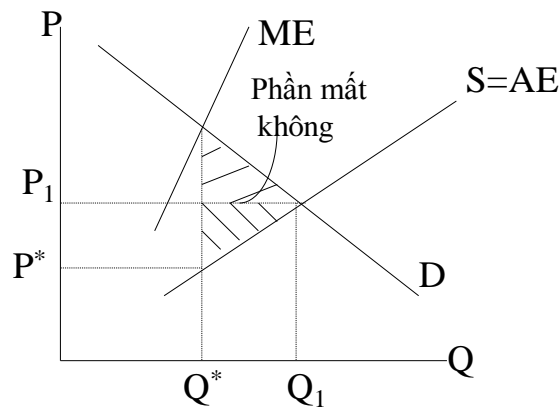


Figure 2: model monopsony market

(Source: Vu Kim Dung, Pham Van Minh, *Microeconomics Textbooks model*, publishers Labor - Social, 2012)

#### 4. EXPERIENCES THE ELECTRICITY MARKET OPERATED SEVERAL NATIONS

##### *Model electricity market in the U.S.*

The electricity-related services in the United States primarily owned by private investors, called IOU but unlike the structure of vertical integration in Europe and other countries around the world and different from Vietnam. In 1995, in the U.S. there are over 195 businesses providing services to meet about 511.435 MW electricity, providing 72% power at the retail level and 42% at the wholesale process. The electric system in the U.S. is currently Commission Federal Energy Regulatory (FERC) management. In addition to the electricity price regulation in the wholesale market, the Commission also specified the terms and conditions of electricity service provider. There is also the involvement of the state management agencies, local agencies, such as the city council. Besides establishing a reasonable investment rate for electricity, the agency is also responsible for planning additional plants, improves power quality and service at local retailers or established sites web services guide new transmission. The regulation of the electricity market in the U.S. is different between states and other European countries due to the fact that, the entire transmission network on the territory of the United States does not have the common characteristics of the national grid only. Instead, power integrated vertical structure based on region. Market Model ISO includes large states: California, Pennsylvania, New Jersey, and Maryland ... In short, the U.S. electricity market is characterized by an increasing competitive market quality electric service to consumers.

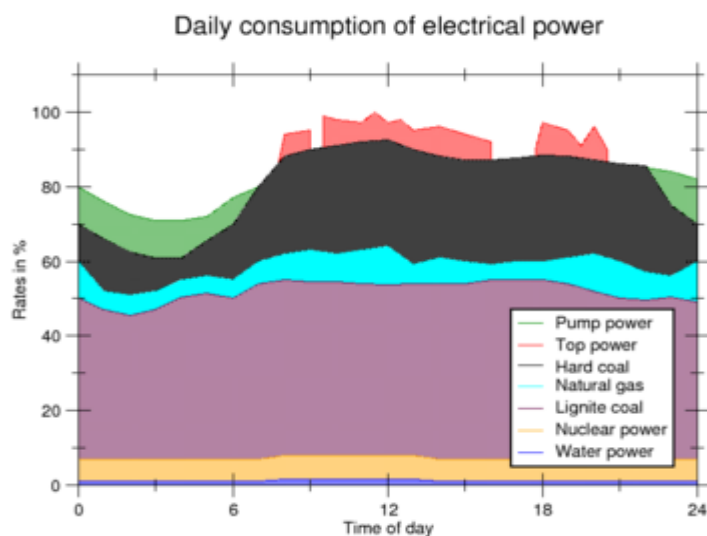


Figure 3: Percentage of electricity consumption from sources around the world every day.

*(Source: open encyclopedia, 2013)*

### ***Model electricity market in Japan***

Japan implemented the deregulation of the market monopoly Power started in 1995 by the company for electricity production (IPP) independent long-term contract with the company national power transmission units vertically integrated (EPDC). Market-structure energy vertically integrated electricity through transmission company National Power (EPDC), which is available exclusively in the area of electrical products and stock holders of the company production mainly government power. EPDC has its own transmission network. Currently, the system integrates vertically but still maintaining the structural shift in market power through continued liberalization. How Japan has liberalized European electricity market and other transition model structure of the United States. Deregulation started by allowing independent producers (IPPs) to sell electricity in the long-term contract with the unit vertically integrated. The development of the Japanese market is analyzed as follows: the deregulation in Japan is driven primarily by electricity monopoly prices relatively high, so the need to increase the power output distribution, facilitate competitive markets including retail and increase the reliability of electrical products. The liberalization as well as the global trend of the electricity market. The nature of the restructuring of the energy market in Japan affected by the typical characteristics such as high population density and large energy consumption by industrial customers, frequent threats of natural disasters such as earthquakes, hurricanes, power plant emissions should be strictly controlled. Japan has high electricity production costs therefore need quality power supply reliability compared to other European countries. Cost analysis of transmission and distribution (T & D) conducted comparing that cost in the United States less than 5 times in Japan. Current electricity market consists of five general Japanese power company, power companies wholesalers, wholesale suppliers, power companies and other special retail electric providers. Government wishes to invest more in electricity transmission company. A new market is introduced. In April 2007, the Commission Electric Industry, Advisory Committee on Natural Resources and Energy has discussed the possibility of complete liberalization of the retail market in 2013, including low voltage market (100V/200V) for consumer customers. The free market creates competition through deregulation of the monopoly market in Japan:

- Strengthening efforts to reduce the transmission cost while maintaining reliability appropriate.
- Electric discount for residential consumers, commercial and industrial.
- Increase in the number of transmissions and share in the retail electricity market.
- Increased competition leads to reduced electricity prices in different areas.
- Investments in supply and enhanced quality.
- Increase power output to meet peak demand.
- Reform removal mechanisms leading to monopoly, established the independent agency and power exchange.

Having a less restrictive commercial power Trade between East and West regions in Japan because the power supply is operating in two separate systems with different frequencies of 50Hz and 60 Hz respectively. A frequency converter is used to provide the connection between the east and west.

### ***Model electricity market in South Korea***

Since 1961, the power supply in Korea is structured vertically integrated , complete power monopoly by Korea Electric Power Corporation (KEPCO) in all stages of production, transmission and distribution. But in January 1991, the basic plan to restructure the electric power industry began. This split led to the Korea Electric Power Corporation (KEPCO) into six independent companies and established Korea Power Exchange (KPX) in April 2, 2001, and the market system is operated by Korea Electric Power Commission (KOREC) in April 27, 2001. In 2001, based on the market price of electricity. It is based on the variable costs of the generators are rated by KPX. It has two separate base market, market coal, nuclear power plants and the general market for all power plants. The plant will supply electricity determining the clearing price through the bidding market, where the price will be determined by the bids and the power supply from the Production Company, electrical distributors, and consumers wholesale electricity, with a population of about 48 million people and is the 10th largest economy in the world, the Korean power industry has a relatively large scale. By the end of 2008, total installed capacity of the system power about 70,000 MW Korea. Considering the technological structure, thermal coal and liquefied gas (LNG) accounted for the highest proportion, 32% respectively and 26%. Nuclear power accounts for about 25% of the total system capacity. The share of hydropower is very low, about 7.5%. Heat the remaining oil and electricity renewable energy.

Korea Electric Power Corporation (KEPCO - Korea Electric Power Corporation), with 51.1% state-owned, is a unit plays a key role in the Korean electricity industry China. KEPCO owns more than 90% of system capacity, monopoly in the electricity transmission - distribution and retail of electricity. So before the reforms, structurally it can be said that the Korean electricity industry has been organized in vertical integration model exclusively.

Necessity deregulation in Korea is mainly driven by the trend orientation towards global abolition of monopoly market power, this should be done to improve the efficiency and competitiveness of the industry, through the power supply lower price and good quality, stable. The economic crisis in 1997 urged the government to reform the basic industrial structure to improve national productivity. Since then, the rapid increase in demand for electricity and ultimately to lower electricity prices on average increased international interest so consumers Nations. The deregulation of creating positive change in the electricity market following the Korean

- Improving the efficiency of the system through market competition.
- Increase the sector's net profit up 42%, reduce power costs 6 %.
- Improving labor productivity, specific productivity of South Korea has increased by 23%.

Through CBP applies the model together with a range of mechanisms for monitoring and regulating tight, Korean electricity market appreciate stability, market prices are generally less volatile and ensure transparency in the operation of the electricity market.

However, Korean electricity market also has some drawbacks as follows

First, applying the calculation and evaluation of variable costs for each power plant (valuation by the Council to undertake generator) led to a huge workload, requires time and human resources force.

Secondly, the mechanism is not flexible bid (offered only permitted capacity ready, no bid) restrict competition on the market.

#### ***Model electricity market in China:***

From entering the the open era, the late 70's, the Chinese economy grew at an average rate of 9% per year. To achieve steady growth has been such a leap of power output, from 65,000 MW in 1980 to 300,000 MW in 2000. Currently, China ranks second globally in terms of both installed capacity and ability to source. However, in terms of output per capita, at 900 kWh, China ranked only 80th in the world. Before re-established trend of electricity industry structure in the world, China has promoted numerous studies on the construction market power to create new development opportunities.

According to the Chinese power sector management mechanisms according verticals ie mode of government ownership and management. Until the mid-'80s, the infrastructure investment power industry still relies entirely on state funding. No private sources and financial projects from foreign sources are still waiting. However, right from the first 90 years, the investment management division of power abroad (FDI) was created, and the source of private organizations (IPP) has been accepted. During the '90s, has allowed FDI investment project (IPP) is about 24,000 MW. The impact of the Asian economic crisis in 1997 caused the loss of the industry's output; reduce the time consumption in the next year. As a result, about 27,000 MW of excess.

Currently Economic Committee and National Commerce undertake the role of government in the management of the power sector. Research and development of a competitive electricity market is still being actively implemented. China has developed a four-step strategy for the rise of the power industry:

- The first step, from month to month 3.1998 1.1997: the establishment of the National Electric Company (SPC) and the Ministry of Electricity to dissolve, break down the state monopoly in the electricity sector, electricity prices in China have fallen 20%.
- The second stage, from 1998 to 2000: development of a competitive market area and complete source of new management structure in the system.
- The third stage, from 2001 to 2010: formation of a transmission network, distribution of national unity full and complete separate parts: power generation, transmission, and distribution.
- The fourth step, since the year 2010 gradually opening up the entire market, officially operate a competitive electricity market and achieve world-class standards to connect to the national electricity system in the area.

#### ***Model electricity market in Thailand***

The power plant in Thailand (EGAT) has been equalization and by the Office of the National Energy Policy (Nepo) management. The deregulation of the electricity monopoly in Thailand due to the financial crisis of 1997, demanding changes in macro-economic policy of Thailand, with the privatization of the electricity sector and restructuring the economy according to the IMF's economic conditions.

This is big step in the formation of a competitive electricity market with the supply of electricity to customers and major retailers. In a competitive market, customers have to choose the company with the lowest generator with market operator (MO) and payment administrator (SA). Electricity transmission network is still proprietary and maintained by separate operators (EGAT-T). Thailand rules of independent regulatory agencies (IRB) to ensure electrical facilitate reasonable price. Competitive electricity market in Thailand allows power producers to sell directly to their customers through a transaction basis (established in 2001-2003). Since 2003, the competitive wholesale market was established thus creating a competitive electricity retailer. Exchanges mechanism to generate electricity wholesaler with the lowest bid in the amount of time will be given power to sell. The company was formed as ISO representative of the company



responsible for electricity generation and economic contracts, security systems, financial settlement for large volume buyers.

#### ***Model electricity market in the United Kingdom***

He is a pioneer country in liberalized electricity markets later in European countries learn from the policies enacted liberalized electricity markets and countries. Electricity Act 1989 in England called transition power industry from government ownership to private investors in order to encourage competition, improve efficiency, encourage greater participation of investors private, employee discounts ... and electricity to customers. This Act shall take effect after the consumer and public criticism of the electricity market in the UK is exclusive (previously 100% government owned electricity industry). After the new Electricity Act was passed, the state electricity company was sold to new investors and have many new power plants are built and sold power to participate in the market. The new structure leads to the formation of a business phone market competition. Each auction house generators on the market based on the forecast grid operators and electricity demand of electric transmission company sends central generating units to meet demand. Since then, ancillary services and power purchase contract is signed. So today in the UK electricity market is a competitive market and there are many vendors selling electricity and contribute to improving the quality of electricity supply in the market.

#### ***Models market power in Thailand***

Generators in Thailand (EGAT) has been equalization and by the Office of the National Energy Policy (Nepo) management. The deregulation of the electricity monopoly in Thailand due to the financial crisis of 1997, demanding changes in macro-economic policy of Thailand, with the privatization of the electricity sector and restructuring the economy according to the IMF's economic conditions. This is a big step in the formation of a competitive electricity market with the supply of electricity to customers and major retailers. In a competitive market, customers can choose power Generation Company with the lowest price with the market operator (MO) and payment administrator (SA). Electricity transmission network is still proprietary and maintained by separate operators (EGAT-T). Thailand rules independent management body (IRB) to ensure electrical facilitate reasonable price. Competitive electricity market allows power producers in Thailand to sell power directly to its customers through a transaction basis (established in 2001-2003). Since 2003, the competitive wholesale market was established thus creating a competitive electricity retailer. Exchanges mechanism to generate electricity wholesaler with the lowest bid in the amount of time will be given power to sell. The company was formed as ISO representative of the generator and the company responsible for the contract, security systems, and financial settlement for large volume buyers.

### **5. MARKET POWER SITUATION IN VIETNAM**

EVN owns the majority of the capacity of the power supply, hold the entire electricity transmission, distribution and electricity retail business. Corporation EVN power purchase power purchase from other than EVN power plants as Vietnam Oil and Gas Group ( PVN ) , Industry Group Vietnam Coal and Minerals (Vinacomin), the private power companies and ... to deliver electricity to retail electricity consumers . According to the Bureau of Electricity, by the end of 2010, the total capacity of the system power is 21 542 MW. Of which , EVN 's management and operation of 24 power plants with a total capacity of 14 233 MW ( accounting for 66.07 % ) , PVN is 2,278 MW ( accounting for 10.57 % ) , TKV is 1,046 MW ( accounting for 4.86 % ) , foreign investors are 2,115 MW (accounting for 9.82 % ) , private investors is 500 MW ( accounting for 2.32 % ) , 1,000 MW from imported ( accounting for 4.64 % ) , the other type is 370 MW (accounting for 1.72 % ) . Through the data showed, EVN holds majority power generators, components such as the PVN, TKV very small proportion of the electricity market in our country no signs of competitive power generation business of selling electricity and poison established. We can say, so far EVN remains the only business monopoly power in the country, and so we do not have any competition in any activity in the stages of the power sector.

From 1/7/2012, competitive electricity market was formed in Vietnam; the power plants have to compete to sell electricity to total electricity trading company EVN - country. It is this creation of a monopoly purchase EVN power plants without EVN very difficult to compete with the best price to sell electricity to EVN. This has hindered the attraction of foreign investment and privatization in the electricity production. So if electricity production is not sold or sold at extremely low prices, the investors will not invest in the construction of thermal power plants, hydro power ... The total power purchase company EVN countries still will not encourage investment in the development of electricity production, besides EVN projects delayed repeatedly led to the current schedule of Vietnam is the country still lack electricity and to purchase power from China for the high. Although, current electricity prices by government regulators but EVN continuous losses and electricity prices. The problem is due to monopoly should not be a mechanism to control the cost of EVN's electricity production in a reasonable manner.

Table 1 indicates the current electricity price in Vietnam compared with 5 national economy developments. If the comparison is based on nominal prices, the price of electricity in Vietnam from 1995 to the present world average. However, a paradox that countries with competitive electricity market, electricity price the industry has always cheaper than household electricity from 20-100 % . While in Vietnam due to the market monopoly, industrial electricity prices

are 20-90 % higher than electricity from households. This is due to the monopoly of EVN in all stages of production, transmission and distribution. One thing to note is Vietnam's only a per capita income of about U.S. \$ 1,950/year, so if calculated according to purchasing power parity, the current electricity price in Vietnam 10-20 times higher than the water developing economies. .

**Table 1 Electricity prices in five OECD countries and Vietnam in 1995 and 2013.**

	Price(USD/kwh)				Price to PPP(USD/kwh)			
	1995		2013		1995		2013	
	Industry	Family	Industry	Family	Industry	Family	Industry	Family
America	0,05	0,08	0,05	0,09	0,05	0,08	0,05	0,09
England	0,07	0,13	0,07	0,12	0,07	0,13	0,05	0,11
France	0,06	0,17	0,04	0,13	0,05	0,13	0,04	0,12
Germany	0,1	0,20	0,07	0,10	0,10	0,20	0,06	0,09
Japan	0,19	0,27	0,12	0,19	0,10	0,14	0,10	0,15
Viet nam	0,07	0,05	0,12	0,07	0,70	0,50	1,20	0,70

(Source: according to survey data of the World Bank, 2013)

Recently, manufacturing operations - EVN's business efficiency low, rising debt , not transparent and not create trust with customers , especially when the proposed electricity price increases . One of the causes of this situation is due to the slow development of a competitive electricity market which is why direct state monopoly in electricity trading takes place in a long time.

Development of a competitive electricity market development trend of the countries in the world, producing propulsion - power business activities and promote effective economic development - social. According to the Electricity Regulatory implementation roadmap electricity market, the Government considered the establishment and development of a competitive electricity market is long -term development strategy of Vietnam's power industry, this was reflected in the Law electricity 2004. Prime Minister roadmap and conditions of formation and development of the electricity market according to 3 levels: competitive electricity market (period 2005-2014); competitive wholesale market (period 2014 - 2022); competitive retail market (the period after 2022).

Competitive electricity market: the first level of competitive electricity markets. In this stage, the only stage of competition in electricity generation, there is no competition in wholesalers and retailers of electricity. Customers use phones without opportunity to choose their electricity units sold. The generator units will compete to sell electricity to a single unit wholesale purchase (purchase electricity company EVN) on the spot market and over the long -term power purchase agreement. Electricity Regulatory annual rate specified output power purchases and electricity contracts traded on the market.

Wholesale electricity market competition: the formation of new units to enhance wholesale competition in the stage of purchasing power. Large customers and distribution companies are entitled to purchase electricity directly from the power generation units through the market or from the wholesale unit. Unit competitive wholesale electricity purchased from the electric generator units and sells electricity to competing distributors and customers. There is no competition in the electricity retail level; customers do not have the right to use a small selection of power supply units.

Retail electricity market competition: the competition takes place in 3 phases: power generation , wholesale and retail electricity . Customers across the country were selected for their electricity unit sales (retail power unit) or purchase electricity directly from the market. The unit also competitive retail electric power purchased from the wholesale unit, the generator unit or from the market for retail electricity customers. Competitive electricity market in 2014, moved to level 2 competitive wholesale market (2015-2022) and after 2022 will perform competitive retail market.

The formation and development of the electricity market with 3 levels is necessary. Successful implementation roadmap electricity market , launched a competitive electricity market will create positive change in electricity activities in Vietnam , enhance transparency and efficiency in production - electrical business , lower production costs as a basis decreased electricity prices . Development of a competitive electricity market is the inevitable trend of the market economy, bringing mutual benefits to both providers and consumers of electricity.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

Roadmap to form a competitive electricity market has been approved need a long time too. Currently our economic growth is unstable, potentially facing middle-income trap, so you need to strengthen the economy by shortening this route. Basic Solution in promoting competitive electricity market is experiential learning formed a competitive electricity market in the country, quickly formed early competitive electricity market in our country. With the advantage of economies of scale hydro power plants , thermal power and nuclear power is coming , accelerating the formation of a competitive electricity market contributes to lower the cost of electricity generated Cheap cost of inputs for the manufacturing sector , thereby promoting exports , creating competitive advantage in the global value chain.

During this time, the inevitable operation of the electricity market to competition but to have a competitive electricity market, government should boldly split electricity transmission and trading of electricity from EVN. Meanwhile, EVN will participate in the market as a generator, and other sources of equal bids, the competition to get a competitive electricity prices. Meanwhile, the situation will not always coal hole now though electricity prices have increased every year ( the nature of monopolies are always looking for ways to maintain low production , high prices to account for consumer surplus ) , the consumer will not receive the message electricity prices , but do not understand why the power sector has holes . Obviously when competitive electricity market, electricity customers will benefit substantially and investors will not fall into that plant is still operating, electricity is still generated, but not selling the entire the capacity of the grid because they can not compete with the EVN's monopoly power. The abandonment of the electricity market models exclusive 100 % completed and is very successful as the model in the Nordic countries , the UK , Germany , France , North America ... Obviously abolish monopoly market power has become a global trend . These countries are still in the process of electricity market reform as the country can learn a lot of lessons learned from the market to compete successfully implemented in these countries. Vietnam should also conduct electricity sector restructuring, effective utilization of the financial support and technical expertise of ADB. Through both theory and practice have shown the restructuring of the electricity sector will bring many benefits, such as power system stability, reliability and improved electrical connections, contributing to the lives of people population.

To economies comprehensive integration, the promotion of a competitive electricity market in our country need more quickly in a time as short as possible. The repeal outdated regulations applicable to industries considered important also help attract private investors and foreign investors to build power plants (hydro, thermal, electric and gas...) to establish a competitive electricity market in the future real .

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