

**THE MINISTRY OF INDUSTRY  
AND TRADE**

**SOCIALIST REPUBLIC OF VIET NAM**

**Independence - Freedom - Happiness**

No. 14318/QĐ-BCT

*Ha Noi, day 25 month 12 year 2015*

**Decision**

**on the approval of the project for restructuring Vietnam power sector for the cause of industrialization, modernization and sustainable development towards 2020 and for visions extended to 2030**

*Pursuant to the Law on Electricity dated 03 December 2004; Law of amendments to Law on Electricity dated 20 November 2012;*

*Pursuant to the Government's Decree No. 95/2012/ND-CP dated 12 November 2012 on regulating the functions, missions, authority and organizational structure of the Ministry of Industry and Trade;*

*Pursuant to the Strategies for the development of Vietnam's industries towards 2025 and for visions extended to 2035 as approved by Prime Minister via Decision No. 879/QĐ-TTg dated 09 June 2014;*

*Pursuant to the Prime Minister's Decision No. 880/QĐ-TTg dated 9 June 2014 on approving the Comprehensive plan for the development of Vietnam's industries towards 2020 and for visions extended to 2030;*

*Pursuant to Prime Minister's Decision No. 2146/QĐ-TTg dated 01 December 2014 on approving the Project for restructuring the sector of industry and trade for the cause of industrialization, modernization and sustainable development towards 2020 and for visions extended to 2030 (via the Letter No. 9457/TTr-BCT dated 25 September 2014 by Ministry of Industry and Trade);*

*Pursuant to the Decision No. 11476/QĐ-BCT dated 18 December 2014 by Minister of Industry and Trade on the issuance of the Action plan of the sector of Industry and Trade for the execution of the Project for restructuring the sector of Industry and Trade for the cause of industrialization, modernization and sustainable development towards 2020 and for visions extended to 2030;*

*At the request of the Director General of the Directorate of Energy,*

**DECISION:**

**Article 1:** To approve the Project for Restructuring Vietnam Power sector for the cause of industrialization, modernization and sustainable development towards 2020 and for visions extended to 2030 (referred to as the Project) with these primary contents:

**I. STANDPOINT, DIRECTION AND OBJECTIVES**

**1. Standpoint and direction**

- a) The restructuring of the Power sector is a constituent of the restructuring of the Energy sector for the comprehensive restructuring of the sector of Industry and Trade in accordance with the strategies and plans for the entire nation's economic - social developments.
- b) The restructuring of the Power sector must correspond and synchronize with the standpoint and direction of the Strategies for developing Vietnam Power sector towards 2025, and for visions extended to 2030. For:
- Maintaining the stable and adequate supply of electricity at rational price and for sustainable developments of the power sector.
  - Upholding the most of internal force in combination with cooperation expansion and active international integration; attracting local and foreign economic sectors' dynamic participation to mobilize at most and exploit more effectively the resources for the development of the Power sector.
  - Constructing the organizational structure of the power sector for enhancing competitiveness, maintaining fairness, equality and transparency in the operations of the power market.
- c) The restructuring of the Power sector is a complex, challenging and lasting process that requires regular assessments, summarizations, and learning from experience to execute amendments corresponding with actual conditions on basis of setting up an enforcement-induced action campaign and a system for supervising, evaluating and consulting feedbacks from relevant parties.

## **2. Objectives**

### a) General objectives

- The restructuring of the Power sector develops the Power sector of Vietnam for great efficiency, sustainability, focus and focal keys from time to time, higher competitiveness; promotes the most of economic sectors' resources; strengthens international cooperation; and expand and enhance the application of modern technologies along with the protection of the ecological environment.
- The activities of restructuring must guarantee not to disturb the supply of electricity to the national economy, not to cause bad impacts against customers and partners, and not to add costs while decreasing intermediate management nodes.
- The restructuring of the Power sector elevates the performance and efficiency of governmental administration and improves the activeness of enterprises' business and production management.
- The competence of Governmental administration is boosted and the system is rationally organized and structured through policies and mechanism clarifying the roles and functions of the Government and the market towards the reduction of barricades and administrative interventions, and the creation of motivations exhorting, moving and allocating resources subject to market signals for advancing the development of the Power sector.

### b) Specific objectives

- Maintain the stable and adequate supply of electricity at reasonable prices and develop the sustainable Power sector for the targets of producing and importing an output of 265 - 279

billion kWh by 2020 for the maximum capacity of 41,000 – 44,000 MW, and an output of 572 – 632 kWh for the maximum capacity of 82,000 – 100,000 MW.

- Advance to the completion of legal frameworks, improve competitiveness, attract investments and develop the power market according to the Government's itineraries; raise competitiveness, maintain fairness, equality and transparency of the transactions for sale and purchase of electricity and the operation of the power market.
- Develop the competitive market for wholesale of power from the year of 2016 and continue the construction of legal frameworks for the forming of a competitive retail market by 2021 according to the Itinerary for establishing and developing Vietnam's competitive power markets.
- Elevate the efficiency of investments and policies on power pricing for maintaining transparency and power pricing interpreting accurately the rational costs and profits of production, transmission, distribution and retail of electricity.
- Attract investment capitals from every local and foreign economic sector participating in power activities and for alleviating Government's investments in the sector of Power.
- Develop synchronously and rationally the power system; encourage the development of clean powers and prioritize the development of new and recyclable energies. Strive for increasing the sum of recyclable energy sources and using about 37 million TOEs by 2020 and 62 million TOEs by 2030.
- Construct the Power companies possessing modern technologies, management caliber, high specializations, effective and sustainable operations to maintain the satisfaction of demands for power for economic and social developments, national energy security and national defense.
- Scrutinize and amend policies and mechanisms to set up transparent legal frameworks and reform Government's administrative formalities for creating favorable conditions, diminishing difficulties and barricades against the growth of companies, and motivating all economic sectors to invest in the growth of Power sector.
- Improve the effectiveness and ameliorate Power companies' production and business performances and competitiveness by re-defining primary missions, re-arranging operations and organization, restructuring equity, re-organizing production and business, management structures, human resource management, and associating the structuring of groups and corporations with the restructuring of the Power sector and the economy.
- Modernize power sources and transmission grids to gain energy savings and reduce electricity consumed by the generation of power while conducting synchronized solutions in technical and operational management for lower ratio of power loss during power transmission and distribution.
- Intensify propagandas and implement economical and efficient power use campaigns and decrease annual energy volume by 2.5%/year and achieve saving rations of about 2.5% by 2020 and of 4% by 2020 in the total annual output of commodity electricity.

- Train and develop personnel of high caliber, and focus on enhancing the abilities to engage in planning policies, organizing and managing the Power sector.
- Strongly apply modern technologies in production and business. Strengthen research and development activities (R&D), manufacture pilot products and services of science and technology to renovate and complete products and increase the localization rate of the production of synchronized systems and equipment.
- Set up and enforce criteria and standards on technique, quality, environment or international standards in the development of the Power sector. Reject investment projects using obsolete technologies, resources and energies in ineffective ways and causing environmental pollution.
- Scan and practice tight control of each investment project's scope and scale according to targets, sectors and programs approved; only make investments in projects whose selection abides by priority procedures and orders, capital source and balancing abilities are defined, and capital for completing investment projects is adequately allocated.
- Heighten the authority and capacities of investment supervision systems, compliance to laws and policies, responsibilities for verification, inspection and supervision of investments.

## **II. CONTENT OF RESTRUCTURING**

### **1. For governmental authorities**

- Augment the government's managerial role and practices in the power sector. Discriminate the functions of governmental management and business management in the Power sector.
- Carry out campaigns for economical and effective consumption of energies, and strive to achieve energy volume approximating those of regional advanced nations. Continue to construct and conduct the Campaign for economical and effective use of energies in 2016 - 2020 for the saving of 8 - 10% of total power consumed.
- Complete the legal document system and activities of the power sector in conformity with the nature of a self-sustaining, self-responsible and transparent corporation on market mechanism.
- Set up an effective market valuation mechanism to minimize market cost of power purchase, transmit precise pricing indicators, encourage power generating units to make effective offers and optimize costs; and provide customers in the market with efficient pricing indicators.
- Construct the Strategies for developing Vietnam Power sector towards 2025 and for visions extended to 2035, which focus on primary business lines and practice modern management methods of management and operation/
- Establish the general Plan for national energies while rechecking and updating the Plan for national power development towards 2025 and for visions extended to 2035 as the foundation of effective investments in the Power sector.
- Set up power pricing system for recyclable energies connected to the grids according to the conditions of various areas and features of power generating technologies deriving from recyclable energy sources to guarantee investors' recuperation of costs and gaining of rational profits.

- Construct and complete policies and mechanisms to exhort companies' application of modern technologies and smart transmission grid technology in the transmission and distribution of electricity for higher reliability in power supply and lower loss of electricity in transmission grids; master thermal power technology and clean coal technology of high output for better efficiency in the use of fuels.
- Set up labor performance targets, norms—of costs - unit price according to actual circumstances to manage elements related to production costs in the production, transmission and distribution of electricity, and strive for setting the labor productivity of Vietnam Power sector's phases in 2020 on par with those of advanced nations in the region.

## **2. For enterprises in the Power sector**

### ***a) Multi-targeting hydroelectric factories and nuclear power***

- Vietnam Electricity (EVN) continues its possession of multi-targeting hydroelectric factors with dependent accounting system and guarantee of sufficient financial capacities to carry out investment projects on schedule.
- Lead multi-targeting hydroelectric factories to directly participate in the markets for wholesale and retail of electricity.
- Vietnam Electricity invests in the construction of nuclear power plants in its hold. Upon the completion of construction and investment, such plants have a dependent accounting system.

### ***b) Power generation corporations (Genco) of EVN***

- By 2020: the campaign of capitalizing Gencos shall occur in 2015 – 2017, to gradually decrease EVN's shares towards the separation of such for independent operations.
- In 2021 – 2030: the capitalization of Gencos shall continue for retaining only 30% of state-owned shares.
- Power firms, which are not multi-targeting hydroelectric and nuclear power plants invested by EVN, shall be transferred to existing or new Gencos to be established, in conformity with the regulations of the power market.

### ***c) TKV – Power Holding Corporation (TKV Power)***

- The operational and managerial model of the corporation, currently capitalized, is Parent Company – Subsidiary.
- The capitalization of TKV Power, towards 2020, progresses to gradually reduce Vinacomin's (TKV) shares.

### ***c) PetroVietnam Power Corporation (PV Power)***

- The corporation is presented operated and managed in the Parent - Subsidiary model. The capitalization of this corporation shall begin after 2015.
- By 2020, the capitalization of PV Power advances. The corporation withdraws its shares in joint ventures and only retains dominant shares in large projects of great importance.

### ***e) BOT power plants***

- Apart from the power plants, whose BOT investments are planned, a study must be conducted on rational ratio of BOT power plants in the power sector by 2030 to maintain power sources' competitiveness and efficiency of investments in the electricity retail market.
- BOT power plants are encouraged to directly participate in the Market for wholesale of electricity (by offering parts of exclusive output in immediate delivery markets or converting and entering Contracts for Difference (CfD) in lieu of Power purchase agreements (PPA) to participate in the power market and market pricing that other power generation companies are performing).
- New BOT projects shall consider reducing the electricity output in output contracts (from 80 to 90% of the supply capacity) to increase the ratio of electricity offered in the electricity wholesale market.

***f) Independent Power Plants (IPP)***

Independent power plants are permitted to participate in the competitive electricity market and to voluntarily join in the establishment of new Gencos to infiltrate the market for electricity.

***g) Transmission of electricity***

National Power Transmission Corporation (EVN-NPT), 100% of whose charter capital is in EVN's possession, conducts an independent accounting system. This model has fulfilled the levels of the growth of the electricity market and performed the functions of managing, operating, maintaining, repairing and investing in the development of power transmission grids.

The pricing of power transmission shall be envisaged for EVN-NPT to gain proper profit ratio and maintaining the investments in developing power transmission grids on pair with the plans approved towards the enhancement of the effectiveness of production and business and of the labor productivity.

***h) Power distribution***

- Power corporations shall be the wholesalers of electricity and participate in competitive Market for wholesale of electricity, with the following tasks:
  - + Participate and compete in purchasing electricity from immediate delivery markets.
  - + Enter mutual contracts and vesting contracts with power generation units to manage risks in the immediate delivery market.
  - + Make payments in the immediate delivery market according to the regulations on competitive electricity wholesale market and make contract payments according to the articles of signed contracts.
  - + Perform the function of providing the electricity distribution service.
- In order to maintain fair and transparent competition, particularly during the transformation to the competitive Market for retail of electricity, Power corporations shall exercise distinction in system organization and accounting activities of electricity distribution and retail units.

The exercising of distinction in retail organization and financial accounting, towards 2020, in Power corporations must fulfill the following requirements:

- + Separate costs for distribution of electricity, retail of electricity and other functions;
- + Separate functions, human resources and organization of distribution and retail;
- Study a plan on unanimous model for operation and management of 110 kV transmission grids in Power corporations to facilitate calculation of distribution costs; specialize and unify the management, commanding, operation, repair and development investment of each Corporation's 110kV transmission grids.
- From 2012 to 2030, the capitalization of Power corporations and division of such from EVN shall progress.

***i) National Load Dispatch Center (A0):***

- National Load Dispatch Center acts as the Power Market and System Operator (MSO), with two primary functions:
  - + Receive price quotations, calculate electricity market's figures and make payments.
  - + Provide system data for calculations and operation of electricity market, receive electricity market's figures, perform security checks, operate systems based on electricity market's figures, and engage directly in purchasing and using supporting services for real-time system balancing.
- MSO maintains the EVN-dependent accounting model, on pair with the forming and development of competitive electricity wholesale market, towards 2018. After 2018, the conversion to independent accounting model shall occur.
- When the competitive electricity retail market runs, research on dividing MSO from EVN is conducted.

***j) Electric Power Trading (EPTC)***

- In a competitive electricity retail market, Electric Power Trading Company (EPTC) continues buying electricity from power plants not participating in the market, such as: imported electricity, BOT electricity factories, power plants in industrial zones, recyclable energy-based electricity. Moreover, parts of such electricity purchases are re-sold to Power corporations.
- During the transition to the competitive electricity wholesale market, EPTC retains EVN-dependent accounting system.
- Upon the transition to the competitive electricity retail market, functions and missions are scrutinized to merge, convert or dissolve EPTC.

***k) Other direct affiliations***

Groups are required to establish general plans for organizing and restructuring state-owned enterprises, including the approach for restructuring direct affiliations to decrease state-owned capital ratio and trimming nodes for effective operations, as follows:

- **Power Construction Consulting Companies:** Groups establish general plans to organize and restructure the power construction consulting sector for intended maintenance of state-owned capital at only about 30%.
- **Project management units:** Groups are required to organize and restructure power project management Units for professional management of on-going investments and transfer of power projects completed.
- **Power engineering companies:** EVN shall put parts of its shares on sale to hold below 50% of charter capital or none at 04 Power engineering companies.
- **Training schools:** EVN needs to establish plans for organizing and restructuring vocational schools, such as Electrical Vocational College, Electric Power College of the Central Vietnam and Ho Chi Minh City Electric Power College, for deeper specialization.
- **Associate companies and investments in non-core sectors:** Groups should put more effects in divestment according to the plans approved by Prime Minister and guarantee the completion of divesting in 2016.

### III. SOLUTIONS FOR IMPLEMENTATION

Apart from improving enterprises' performances in production and business, the Power sector's restructuring upholds cost transparency and raise competitiveness in the electricity market. The settlement of such matters should focus on these solutions:

1. Renew policies and boost the reforming of legal frameworks on electricity market and power pricing policies, for satisfying the sector's growth demands:
  - Continue to inspect, amend and complete policies and supporting systems to motivate the growth of the Power sector.
  - Ameliorate legal frameworks and construct electricity markets for maintaining competitive ambiance and attracting local and foreign investments into the Power sector.
  - Meliorate policies encouraging the development of recyclable powers connected to the grids, particularly policies on power pricing corresponding with power generating technologies employing recyclable energies to guarantee investors' cost reclaiming and proper profits.
  - Refine policies on power pricing for transparency and precise interpretation of costs in production, transmission and distribution. Give out pricing indicators and precise information on system demands to electricity power investors and to support electricity users' implementation of power-saving programs.
2. Enhance governmental management in the power sector:
  - Improve planning quality, associate strategies with the establishment of plans and schemes, exercise management and supervision for greater governmental management of power sector development plans.
  - Inspect and systemize strategies, plans and schemes on the development of sectors and products mainly of the Energy sector, which have been approved by competent authorities, to facilitate amendments and renewal.

- Continue to construction and conduct the Campaign for economical and effective use of energy; legal frameworks on energy quota for focal industries that consume enormous power; and establish legal frameworks on the operation of the energy saving services (ESCO).

- Extend inspection and supervision of investment efficiency in the Power sector and maintain compliance with plans and strategies approved.

### 3. Enhance competitiveness in the Power sector:

- Continue the development of competitive electricity wholesale and retail markets according to the itineraries approved by Prime Minister via Decision No. 63/2013/QĐ-TTg on itineraries, requirements and power sector's structure for the forming and development of power market levels in Vietnam.

- Maintain competitiveness in the Power sector, construct proper structure of the sector, form various units for sale and purchase of electricity, service providers (Operators of electrical systems and electricity markets, Electricity transmitting units, Electricity distributors) independent from buyers and sellers.

- Electricity markets must give out pricing indicators and precise information on system demands to investors, maintain transparency in the operation of electrical systems – electricity markets, establish schedules for market mobilization and pricing, enter contracts with new power providers to control market risks, and encourage greater operational efficiency to optimize the exploitation of power sources.

### 4. Renovate and use modern technologies of high productivity:

- Conduct research on the application of modern technologies, smart transmission and distribution grid technologies to improve reliability in electricity supply and decrease power loss in transmission grids.

- Intensify technological renovations and new technology applications for higher labor productivity and electrical system operation performance to lower demands for investments in the growth of power sources and grids.

- Conduct research on mastering thermal power technology, and improve effectiveness in the use of coal and gas, increase reliability and equipment readiness coefficients; conduct research on the application of supercritical technology, coal gasification technology; refurbish, upgrade and replace current equipment with modern ones for thermal power stations.

- Study and apply economic and effective energy use technologies, new and recyclable energy technologies in production phases and impulse saving of power.

### 5. Improve efficiency in investments, production and business:

- Make focus investments and concentrate capitals in projects that follow the 5-year plan of production, business and investment approved by Prime Minister, and guarantee the progress of investments according to the schemes approved and maintain the investment quality.

- Enforce advanced management approaches across the world to boost production and business performance and competitiveness while lowering products' cost prices.

- Renovate organization and management, innovate and strengthen internal management according to conditions of each group or corporation; and focus investments in core business lines.

#### 6. Restructure and organize enterprises in Power sector:

- Exercise management solutions for greater business efficiency and labor productivity in the production, transmission, distribution and retail of electricity.
- Inspect, arrange, merge and dissolve some service providers in accordance with the power market growth itineraries.
- Exhort the establishment of Electricity service companies (ESCo) independent from or directly under Vietnam Electricity to perform services that encourage economical and effective use of electricity.

#### 7. Heighten the companies' labor productivity

- Institute solutions and implement modern technologies and advanced managerial models to improve labor productivity and labor employment efficiency in the production, transmission, distribution and retail of electricity.
- Power generation units shall speed up specialized training plans for operational activities, regular maintenance and major repairs. Operators of transmission grids and electricity distribution step up the plans for construction of transformer stations without personnel on duty and remote control centers in 2016 – 2020 on basis of automatic control system integration for no new management nodes and saving of investment costs.
- Inspect organizational models and establish criteria in titles, profession and labor quota; arrange, train and re-educate laborers in various sections to maintain their benefits against the settlement of labor redundancy.

#### 8. Improve financial conditions of the Power sector

- Hasten the capitalization of enterprises in the Power sector; diversify share owners, stay determined for divestment from non-core sectors. Carry out the approved plans for restructuring of Groups and Corporations in drastic manner.
- Develop specialized companies that focus on core sectors and possess sufficient strengths and eradicate internal competition in primary business lines.
- Establish the human resource management system on international standards; tighten management and supervision through the share representatives; set up criteria and representative nomination system subject to company types.

#### 9. Development of human resources

- Set up strategies and organize trainings according to personnel development plans for specialized areas.
- Focus and prioritize the period-based training of specialists in spearhead areas to guarantee quality required from time to time.

#### 10. Solutions for safety, environment and sustainable development

- Conduct research on the development of waste management and treatment systems with modern technologies subject to the conditions of Vietnam, to maintain adequate abilities of waste treatment, particularly for coal thermal power stations.
- Select and apply technologies that are modern, effective, environmental friendly, high reliable, safe and focused on treating wastes subject to the conditions of Vietnam.

#### **IV. ENFORCING ORGANIZATIONS**

General Directorate of Energy, Departments and Authorities of Ministry of Industry and Trade base on their functions, mission and authority to lead and coordinate with units inside and outside Ministry of Industry and Trade and Departments of Industry and Trade of municipalities to provide counsels for Minister of Industry and Trade's steering and guiding of the implementation of the Project, as follows:

##### **1. General Directorate of Energy**

- Lead and coordinate with relevant units to steer the implementation of the Project for restructuring Vietnam Power sector; act as the node of inspecting, spurring and supervising the implementation of the Project.
- Study and propose policies that support investments in the development of the Power sector, mobilize social resources for effective implementation of the Project.
- Conduct regular specialized supervision of the fulfillment of requirements on investments and governmental management of projects within its jurisdiction.
- Make and deliver annual reports summarizing and evaluating the implementation of the Project to the Minister of Industry and Trade; conduct active research and propose changes necessary for the Project.

##### **2. Electricity Regulatory Authority of Vietnam**

- Lead and coordinate with relevant units to establish legal frameworks to maintain the transparent and effective operation of the electricity market.
- Lead and coordinate with relevant units to set up regulations on electricity market's power pricing and fees to maintain the objectives of the Project.
- Lead and coordinate with relevant units to study and establish labor productivity targets, cost - unit price norms subject to actual conditions to manage production cost-related elements in the production, transmission and distribution of electricity.

##### **3. Department of Planning**

- Supervise investments by Power sectors' enterprises within its jurisdiction; and set up criteria on evaluation of investment efficiency to lay the foundation for the supervision of the implementation process and investment efficiency.

##### **4. Department of Finance**

- Lead and propose policies for capital attraction and investment socialization in the Power sector's priority areas.
- Study and propose financial policies for the implementation of the Project.

#### 5. Department of Personnel and Organization

- Lead and coordinate with relevant authorities to monitor, supervise and guide the organization and renovation of enterprises according to the contents of the Project.
- Act as the node of steering, inspecting, spurring and supervising Power sector's companies to implement restructuring projects ratified by Prime Minister and Ministry of Industry and Trade.

#### 6. Relevant Authorities and Departments

- Navigate the training and education of Power sector's personnel according to the contents of the Project.
- Establish and issue national standards, national technical codes and economic - technical norms for the Power sector;
- Coordinate with relevant companies and authorities to organize and guide the application of latest and advanced technologies in the Power sector.
- Scan, systemize and inspect the enforcement of legal documents related to the Power sector.
- Search for partners in their territories of management to mobilize investments and aids in the transfer of production technologies and investments in the Power sector.

#### 7. Departments of Industry and Trade of municipalities

- Organize the inspection and construction of local Power sector development plans that shall be submitted to competent authorities for ratification and implementation, according to the Project.
- Provide investors constructing local power buildings with aids and priority lands.
- Study and establish the policies encouraging investments in the development of Power sector's buildings. Such policies shall be ratified by competent authorities.

8. Societies and Associations strengthen their roles of connecting companies' cooperation with the General Directorate of Energy for the proposition of policies on developing the power sector's production, business, construction and investments. Units in Ministries and Departments of Industry and Trade of municipalities are responsible for coordinating with the General Directorate of Energy during the process of organizing and implementing the Project.

9. Groups and state-owned corporations in the Power sector establish and execute action plans for the implementation of the Project and report to the General Directorate of Energy, Departments and Authorities of the Ministry of Industry and Trade by the 15<sup>th</sup> of December each year. General Directorate of Energy summarizes information and reports to the Ministry's Leadership on the results of the implementation of the Project by the 15<sup>th</sup> of January in the following year.

**Article 2.** This decision takes effect on the signing date.

**Article 3.** Office Manager of the Ministry, Head of General Directorate of Energy, Heads of relevant units shall implement this Decision. /.

*The Minister*

*This translation is only for reference*

*Vu Huy Hoang*

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