The Impact of the Reform of Factor Market-oriented Allocation on Grid Companies and Related Suggestions

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Abstract. On April 9, 2020, the CPC Central Committee and the State Council issued “Opinions on Building a More Complete System and Mechanism for Market-oriented Allocation of Factors” (hereinafter referred to as the Opinions), which made an important deployment to promote the five production factors to achieve a higher level of market-oriented allocation. As the key link of power allocation, Grid Companies are directly related to the economic and social development of the whole country. This paper analyzes the main contents of the opinions in detail, studies the impact of the opinions on power network planning and construction, labor employment, capital operation, technological innovation, the development of emerging industries of Grid Companies, and puts forward targeted suggestions to provide theoretical support for the development of Grid Companies.

1 INTRODUCTION

After more than 40 years of reform and opening, the pricing of Chinese goods and services have changed from government pricing to market pricing, but the cultivation of factor markets is relatively lagging, which has affected the decisive role of the market in resource allocation. The “Opinions on Building a More Complete System and Mechanism for Market-oriented Allocation of Factors” (hereinafter referred to as the Opinions) has carried out a top-level design of the market-oriented allocation of factors from the system and mechanism level. It is important to improve the quality of factors and the efficiency of allocation through a fluid mechanism, guide all kinds of factors to gather in advanced productive forces, promote changes in the quality, efficiency, and power of economic development, and accelerate the improvement of the socialist market economic system.

2 CONTENT OF “OPINIONS”

The core spirit of the “Opinions” is to allocate key production factors in a market-oriented manner to further stimulate market vitality and creation, and propose the direction of reform in five factor areas. In terms of land factor, efforts are made to enhance the flexibility of land management, industrial land use methods, and land planning index management. In terms of labor factor, efforts are made to guide the rational, smooth and orderly flow of labor factors, improve a unified and standardized human resources market system, and improve the selection and employment and salary distribution mechanisms. In terms of capital factor, efforts are made to

improve the multi-level capital market system, improve the basic system construction of the stock market, and improve the construction of unified standards for the bond market. In terms of technical factor, efforts are made to stimulate the vitality of technology supply, promote the transformation of scientific and technological achievements, activate property rights incentives, and activate the vitality of technology transfer institutions and technology managers. In terms of data factor, efforts are made to accelerate the cultivation of the data factor market and comprehensively enhance the value of data elements.

The “Opinions” emphasized: The first is to clarify the target principles of market-oriented allocation of factors. The three goals are market decision of factor prices, autonomous and orderly flow, and efficient and fair allocation. The four basic principles include market decision, orderly flow; sound system, innovative supervision; problem-oriented, classified policy implementation; seeking progress while maintaining stability, and gradual progress. The second is to clarify the reform content of the market-oriented allocation of factors. It not only emphasizes the three traditional production factors of land, labor and capital, but also pays more attention to the market-oriented and efficient allocation of new factors, accelerating the development of the technological factor market, and using data as the form of production factors for the first time, giving full play to the multiplier effect of data factors on the efficiency of other factors. The third is to clarify the operating mechanism of market-oriented allocation of factors. Emphasis is placed on improving the market-oriented factor price mechanism, innovating price management and supervision, improving market evaluation contributions, improving factor trading platforms, rules and services, and improving the level of

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transaction supervision and the ability to emergency allocation of factors.

3 THE IMPACT OF THE “OPINIONS” ON GRID COMPANIES

3.1 Impact on power network planning and construction

The implementation of the “Opinions” may require Grid Companies to obtain part of the power network construction land through market transactions; at the same time, it will help Grid Companies improve the utilization efficiency of existing construction land.

It emphasizes to promote market-based allocation of land factor, reduce the scope of direct allocation of resources by the government, and gradually form a dynamic adjustment mechanism linked to market prices. As the scope of land allocated by the government shrinks, it is expected that the proportion of construction land allocated by the government for Grid Companies substations, line corridors, and business halls will be reduced, and some will obtain land use rights through market transactions, and land costs will rise.

It emphasizes the requirements of land and space planning and use control. Due to the strong authority of land and space planning, it cannot be changed easily. Therefore, the land used for the construction of inter-provincial and inter-regional power network that is included in the national land and space planning will be guaranteed to a greater extent, and at the same time, and higher requirements for the accuracy and scientificity of the power network planning will be put forward.

It encourages the revitalization of stock construction land, and promotes the revitalization and utilization of stock land for state-owned companies in various ways. There will be more room for development in the socialized sharing and utilization of resources of business halls, transmission lines and station site corridors owned by Grid Companies.

3.2 Impact on labor

The implementation of the “Opinions” is to the use of outstanding talents on a larger scale by Grid Companies; at the same time, it puts forward clear requirements for strengthening market-oriented and socialized labor and improving the wage distribution mechanism.

It is required to deepen the reform of the household registration system, optimize the points settlement policy in mega-cities, try to implement the household registration system with the place of habitual residence, and smooth the channels for overseas scientists to work in China, which is conducive to the greater use of talents for Grid Companies.

It proposes a sound unified and standardized human resources market system, which further smooths the channels for companies and social organizations to enter state-owned companies and institutions, optimizes the mechanism of state-owned companies and institutions for

the selection and employment of people from the society, implements state-owned companies’ hierarchical and classified public recruitment, and strengthens employment assistance. It also puts forward clear requirements for Grid Companies to improve social recruitment, unblock talent flow channels, and strengthen employment assistance.

Emphasis is placed on deepening the reform of the wage determination mechanism of state-owned companies, increasing the labor compensation of workers, especially front-line workers, and implementing income distribution oriented by increasing the value of knowledge. It also puts forward clear requirements for the improvement of the wage distribution mechanism of Grid Companies. Grid Companies need to further strengthen the linkage between wages and economic benefits, benchmark with the market, tilt labor compensation to frontline employees, and fully reflect the value of scientific research, technology, and management talents.

3.3 Impact on capital operations

The implementation of the “Opinions” will help Grid Companies expand financing channels and improve financing efficiency; at the same time, it puts forward higher requirements for strengthening the standardized operation of the capital market and accelerating the supply-side structural reform of the financial industry.

It points out that reform and improvement of the stock market issuance and trading system, steadily expand the scale of the bond market, enrich the bond market varieties, promote the interconnection of the bond market, and explore the implementation of a registration system for the issuance of credit bonds of Grid Companies. The vitality of the stock and bond markets will be further enhanced, which is conducive to the flexible use of capital markets for financing by Grid Companies, the coordinated development of equity financing and debt financing, and the reduction of financing costs.

It emphasizes the improvement of the stock market delisting system, improve the quality of listed Grid Companies, improve the investor protection system, unify the information disclosure standards for Grid Companies’ credit bonds, and improve the bond default resolution mechanism. Grid Companies are required to strengthen the management of listed Companies, improve information disclosure and investor protection mechanisms, and improve the standardization and transparency of capital market operations.

It is proposed to improve the multi-level capital market system, increase high-quality financial services for small and micro companies, private companies, promote green financial innovation, and actively and orderly expand the opening up of securities, funds and other industries. It puts forward higher requirements for Grid Companies to optimize the structure of financial products and services, improve the accuracy and quality of financial services, and enhance the core competitiveness of the financial industry, which also opens up room for innovation.

3.4 Impact on technological innovation

The implementation of the “Opinions” is conducive to Grid Companies to enhance the vitality of scientific and technological innovation and promote the transformation of scientific and technological achievements; at the same time, it also puts forward clear requirements for adhering to application orientation and optimizing scientific research project management.

It points out that to deepen the reform of the right to use, dispose of, and the right to profit from scientific and technological achievements, and strengthen the protection of intellectual property rights and market-oriented operations will help Grid Companies positive incentives for innovation and further release the innovative vitality of scientific researchers.

It is proposed to cultivate and develop technology transfer institutions and technology managers, improve the technology achievement trading platform, improve the public transaction and supervision system of technological achievement transformation, promote the integration of technological elements and capital elements, etc., and build a supporting mechanism for the smooth and effective operation of the technology market, which is conducive to promoting technological achievements such as patents of Grid Companies participate in external transactions or invest in shares to reduce technical transaction costs and realize the transfer and transformation of achievements through multiple channels.

It emphasizes the reform of scientific research project establishment and organization methods, adhere to goal guidance, to strengthen achievement orientation, establish and improve diversified support mechanisms, to optimize the entire process management of scientific and technological innovation for Grid Companies, and further to improve scientific research project establishment, financial support, and achievement evaluation mechanisms.

3.5 Impact on the development of emerging industries

The implementation of the “Opinions” is conducive to strengthen the value mining and resource utilization of power big data, and accelerate the cultivation and development of the digital economy; at the same time, it puts forward clear requirements for improving data quality and protecting data security.

It points out that to advance the open sharing of government data is conducive to the coordinated and integrated utilization of electric power big data and public data such as corporate registration, transportation, and meteorology, and to create more updated data products. At the same time, all sectors of society have great expectations for the open sharing of power data. Grid Companies need to strengthen top-level design, study and clarify key issues such as the field, principles, methods, and value evaluation of data open and integrated use, and promote data open in an orderly manner.

It emphasizes the cultivation of new industries, new business forms and new models of the digital economy, and supports the construction of data development and

utilization scenarios in the fields of agriculture, industry, transportation, and urban management, which is conducive to the development of new businesses such as smart energy services based on the energy internet and the creation of “platform + ecology” business model, fostering new development momentum.

It is proposed to promote the standardization of data collection for wearable devices, the Internet of Vehicles, and the Internet of Things, improve data quality and standardization, and strengthen data security protection, and put forward requirements for Grid Companies to improve data governance and standardized utilization.

4 SUGGESTED ACTIONS

The market-oriented reform of factors is a long-term task. Grid Companies need to vigorously strengthen market awareness, seize the opportunity of market-oriented allocation of factors, make good use of relevant policies, optimize factor allocation systems and mechanisms and business development strategies, and improve development efficiency and market competitiveness.

The first is to closely follow the reforms of the Development and Reform Commission and other relevant ministries and commissions, and formulate measures that Grid Companies can promote in the near future. The Development and Reform Commission will work with the Ministry of Science and Technology, the Ministry of Human Resources and Social Security, the Ministry of Natural Resources, the People’s Bank of China and other departments to sort out the reforms that can be implemented in the near future. Grid Companies need to pay close attention and come up with corresponding implementation plans in time.

The second is to strive for the inclusion of land for power network construction in national land and space planning and local government planning. Further improve the accuracy of the preliminary work of the power network, actively strive to include the land for major projects such as cross-provincial and cross-regional power transmission into the land and space planning, urge provincial Grid Companies to strengthen reporting and communication, and promote the inclusion of land for transmission and distribution network construction projects into local government plans. Actively study the ways of revitalizing the existing land of Grid Companies, and rationally convert land uses under the premise of ensuring the safety of the power network and complying with supervision, and improve the utilization efficiency.

The third is to increase the intensity of market-oriented labor reform. In industrial financial units, “Double Hundred Action” pilot units, and scientific research and education and training units, increase social recruitment and market employment, and improve market-based salary distribution mechanisms. Gradually explore flexible social employment methods such as the pilot project system recruitment in the main business of the power network.

The fourth is to expand financing channels and accelerate the development of online industry chain finance. Promote the listing and financing of qualified

high-quality assets and improve the level of asset securitization. Steadily expand the scale of issuance of power network bonds and credit bonds. Focusing on the needs of industry chain financing, insurance protection, asset management, etc., build application scenarios to strengthen green finance and online industry chain financial innovation.

The fifth is to improve the innovation incentive mechanism and explore the use of external technology markets to promote the transformation of results. Promoting the reform of the right to use and profit from scientific and technological achievements of Grid Companies, realize the transaction transformation of patents and other achievements on the national technology trading platform, and strengthen cooperation with external technology managers and transfer agencies.

The fifth is to accelerate the development of the data industry. The top priority is to make up for shortcomings in development, such as incomplete data, low data quality, and few application scenarios. It is necessary to expand and integrate data portals such as the online state power network, new energy cloud platforms, and Internet of Vehicles platforms, establish and improve data circulation and management rules, and better promote data penetration and collaboration. Organize internal scientific research and information development forces, accelerate the construction of practical models and software from data processing to product output, iteratively deepen credit investigation and other applications, and strive to launch a batch of influential commercial and typical products that serve government decision-making.

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References

1. Zhou Tianyong, Market oriented reform of factor allocation: Quantitative estimation of releasing economic growth potential, *Research on Financial and Economic Issues*, vol. 7, pp.14-31, July, 2020.
2. Chen Yanbin, Wang Zhaorui etc., The Common Problems and Overall Solutions of the Reform of Market-Based Allocation of Factors of Production, *Reform*, vol.7, pp.5-16, 2020.
3. Kuijs, L China Through 2020:A Macroeconomic Scenario, *World Bank China Office Research Working Paper*, vol.9, 2016.
4. Ming Meng, Sarah Mander, Xiaoli Zhao, Dongxiao Niu, Have market-oriented reforms improved the electricity generation efficiency of China's thermal power industry? An empirical analysis, *Energy*, vol. 114, pp.734-741, 2016.
5. Liu Xiangfeng, Liu Qiang, Research on the Reform of Factor Market — oriented Allocation, *Macroeconomic Research*, vol.12, pp.34-47+166, 2019.