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Water Resources Protection and Legal Guarantee in China's Energy Development

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Abstract: The protection of water resources is one of the important tasks of China's ecological civilization construction. At present, due to the lack of awareness of water resources protection, a large number of water resources pollution and waste have been caused. The increasingly tense use of water resources is common in many areas of our country. There are serious water security risks in China's energy development. The legal dilemma of water resources protection in energy development mainly includes: the sub sectoral management of energy and water resources leads to the lack of systematic development concept of water resources protection legal system, the insufficient consideration of energy policies and laws to ensure ecological and environmental water use, and the energy development lacks unified consideration of water quality and quantity. Starting from China's national conditions, it is proposed to promote the systematization of the legal system of water resources protection in energy development with the systematic thinking of "adhering to the principle that mountains, rivers, forests, fields, lakes, and grasses are a community of life", add relevant provisions in the formulation of energy development policies and laws, and give full play to the role of soft law. This paper first analyses the problems in China's water resources protection, and then puts forward effective countermeasures to solve these problems, hoping to provide some support for China's water resources protection.

Keywords: Energy Development; Water Resources; Protection Issues; Legal Guarantee

Introduction

In the current process of national development, the scale of energy development has been effectively limited to the local water resources carrying capacity, which is not only the satisfaction of social needs, but also an important concern of the government's efforts to provide high-quality public services for the public. At the same time, from the perspective of legal research, energy law and environmental law are facing research topics of great theoretical and practical significance. The existing research results on the "energy-water correlation" in China mainly focus on natural sciences such as the coupling degree of energy and water resources and water-saving measures in the energy industry. In the field of Humanities and Social Sciences, only a few scholars have made an in-depth analysis of the "energy-water relationship" from the perspective of law and philosophy, focusing on the relevant experience of American legislation, putting forward the concept of "energy-water relationship" in the field of legal research, and making an in-depth analysis of the specific path of the relationship between energy and water source from the perspective of philosophy, explicitly from the policy and legal level on the causes of the water crisis in China's energy development examination and reflection. Taking the current situation of water resources protection in China's energy development as the starting point, this paper reflects on the deep-seated causes of the water crisis in China's energy field from the policy and legal level, puts forward suggestions on strengthening water resources protection in energy development, and explores the important path of energy development policy and law.

1. Legal dilemma of water resources protection in China's energy development

The institutionalization of water resources protection by law is the main focus of water resources protection in energy development under the background of first aid construction, and it is also an important choice to realize the further

development and high-quality development of China's energy industry under the constraints of water resources. When carefully examining China's existing energy policies and laws, we can conclude that there are specific provisions on water resources protection in energy development, but there is still a certain distance from the ecological rule of law. Especially in the new era, the protection of water resources in energy development should stand at the new height of national water security and focus on the protection of intergenerational interests of future generations.

1.1 Sub sector management of energy and water resources leads to water resources

The protection legal system lacks the concept of systematic development. Coal, oil, natural gas, and water are not only environmental factors, but also resource factors. In addition to seeing their independent characteristics, it is essential to see their commonalities. It is necessary to take ecological integrity protection as the starting point and protect resources and environmental elements in a unified way. If policies and laws in different fields of natural resources lack the spirit of unified protection, they will ignore the possible impact of the development and utilization of one natural resource on other resources. China has long adopted the sub sector management system in the field of energy and water resources, which is not conducive to the unified protection of resources and environmental factors, especially the protection of water resources in energy development. The formation of a certain administrative department in charge of water resources is characterized by the participation of a certain administrative department in charge of water resources and other relevant departments. The disadvantage of this management system is that when formulating energy management policies and laws, it often reflects the interests and opinions of a single department, understands and implements management from the perspective of a single department, with the result that through departmental legislation, the interests of the department often take precedence over the interests of society. When considering the target value to be achieved by various energy activities, the sectoral legislation of the energy sector does not take into account the value to be achieved by the elements of other resources, including water resources. It is easy to ignore the possible negative impact of policies and laws for a single resource on other resource management fields, including water resources. This model not only separates the various natural associations between various resources, but also separates the cooperation that should exist between different resource management departments based on the natural associations between different resources.

1.2 Energy policies and laws lack relevant provisions on saving and protecting water resources

The deficiency in the field of energy policy and law is mainly that the provisions on protecting the ecological environment and water use are in vain, and the relevant provisions are obviously insufficient. In looking for and analyzing the specifics, we can conclude that the lack of content in China's energy law on how to ensure the "energy-water balance" reflects the lack of a concept of protecting water resources in energy management, and more attention needs to be paid to this aspect. The focus of attention is to ensure the safe production and coal development and utilization of the coal industry. There is a lack of consideration on the conservation and protection of water resources in the fields of coal energy mining, production, processing, and consumption, how to protect water resources in the coal industry, as well as realize the content of matching the development and utilization of coal with the carrying capacity of local water resources.

1.3 Lack of unity of water quality and quantity in energy development

When analyzing the situation of energy development, processing, transportation, consumption, and other links, it basically affects the conservation of water resources in terms of the dual aspects of water quantity and water quality. The huge amount of water intake and consumption in the development and utilization of energy will lead to conflict and competition between energy water and water in other aspects. At the same time, it will also affect the water quality due to the damage of energy development to the water ecological environment where the energy is located. In particular, the operation of energy bases in arid and semi-arid areas continues to lead to the collapse of water ecosystems in local rivers due to the lack of sufficient quantity and quality of eco-environmental water. The protection of water resources in energy development needs

to comprehensively consider the dual protection of water quantity and water quality. The field of water resources management in China follows the way of separate management of water quantity and water quality, nevertheless, in water-related affairs, the administrative department of reclaimed water and the competent department of the ecological environment is the competent departments, and there are unclear or even conflict in the division of responsibilities for water quality management, monitoring means, and monitoring data release. Water resources themselves, especially the water ecosystem of the basin as the material carrier of water resources, are a whole. The lack of sufficient water that meets certain quality requirements will lead to the overall damage of the water ecosystem of the basin.

2. Water resources protection and legal guarantee path in China's energy development

2.1 Add relevant clauses when formulating energy development policies and laws

The formulation of energy laws and policies should fully consider their impact on water resources and coordinate them with China's most stringent water resources management system. Under the current mode of departmental legislation, special attention should be paid to the need to "prevent departmental interests from overriding the overall interests of society through legislation, and prohibit relevant departments from blindly pursuing the maximization of their short-term interests and ignoring sustainable development". It is necessary to further add provisions on the protection of water resources in energy development in relevant laws and regulations, take the most stringent water resources management system as the basic system that must be followed in energy development and utilization, and strictly limit the impact of energy development activities on the surrounding environment, especially water resources Impact of the water ecosystem. Energy development projects must undergo strict environmental impact assessment, fully assess the impact of the project on the local water resources carrying capacity, and take environmental impact assessment as the precondition to realize the coordinated promotion of energy development and water resources protection. In principle, it is stipulated that local ecological and environmental water must be guaranteed in energy development activities, especially in the construction and operation of energy bases. In the field of new energy law, pay attention to the impact of new energy production on water resources, and write "encouraging the development of new energy with less water consumption and less pollution" into China's relevant laws and regulations when revising the legislation.

At the same time, at the level of energy policy, we should be able to strengthen the laws related to energy and water sources, and echo the single law in the basic energy law. When determining the development plan of relevant energy industries, we should also clearly consider the matching of energy in different regions, especially coal and water resources, respect the local water resources carrying capacity, and reduce coal mining and utilization activities in arid and semi-arid water-scarce regions, such as western and northern provinces of China. When planning the energy base, take the water resources demonstration report of the proposed site and the review opinions of the Ministry of water resources as the preconditions for deciding whether to build the energy base. On the basis of the total water consumption control in the strictest water resources management system, it is emphasized that when implementing new energy and mineral resources plans, it should be clearly stipulated in the relevant plans that the energy and mineral resources development activities of the whole country and each province and region must be limited to the carrying capacity of local water resources, so as to realize the coordinated promotion and planning unity of energy development and water resources protection.

2.2 Give play to the role of soft law and strengthen the guarantee of water for energy development

Considering the actual situation of national development of water resources, in order to better strengthen the coordination between basin energy development and eco-environmental water security, pay attention to the function and role of soft law, and promote the active participation of all water users in the basin, especially energy and water users, in the way of multi-agent consultation, so as to ensure eco-environmental water use. Soft law and hard law are a pair of corresponding concepts.

The so-called hard law refers to the legal norm system formulated by the specific organs of the state and effectively implemented with the backing of national coercive force; while the soft law actually refers to those legal norm systems that lack national coercive force as the basis and guarantee of implementation. Specifically, although the soft law is a "law", it is also formulated by the state, and its implementation mainly depends on the conscious compliance of social members, the drive of social public opinion, and the guidance of value, rather than the guarantee of national coercive force. After violating the soft law, the illegal subject may not bear the corresponding legal liability because the soft law does not provide the corresponding legal consequences, or because the legal consequences provided by the soft law are mostly positive legal consequences. It can be said that soft law has become an important way of governance. To determine the fit between soft law and governance objectively requires that the formulation of policies and laws must fully respect the objective law of the relationship between energy and water sources, pay attention to the role and path of soft law, and promote the protection of the ecological environment and water use in river basins. The application of soft law in the field of energy and water resources governance means that after continuous consultation and game among water users with different interest demands, such as energy enterprises, residents, agricultural water users, water administrative departments, and ecological environment administrative departments (responsible for ensuring ecological environment water use), consistent rules for ecological and environmental water protection are formed and jointly observed. When determining the energy soft law involving eco-environmental water use, the formulation subject needs to pay more attention to the joint participation of multiple subjects. A ll parties can fully negotiate the amount of eco-environmental water in the basin, ensure the amount of eco-environmental water calculated by authoritative institutions in the basin, sign the agreement on co-construction and sharing of eco-environmental water in the basin, so as to achieve the balance between economic development and ecological protection. In the specific implementation, further weakening the national coercive force and introducing social supervision and water conservation induction, promote the promotion of soft law governance model and the effective application of soft law measures will promote the deepening of governance concept in practice.

2.3 Establish a multi-sectoral coordination mechanism based on blockchain technology

Better promote the synergistic supervision of water quality and water quantity in energy development, so that when water resources protection in energy development involves water quantity and water quality, a coordination mechanism between energy and water resources management is established, and attention is paid to building an effective implementation mechanism between them. On the basis of intelligent promotion, the smart contract will write the agreed matters of the parties to the agreement into the execution system in the form of code in advance. Once the contract is started, it will be automatically executed without any intervention of the parties to the smart contract. Moreover, the operation of the smart contract does not depend on the centralized server, but on each node in the blockchain. The smart contract can solve some problems by minimizing trust. Minimizing trust can make things more convenient and replace manual judgment through fully automatic execution. The smart contract is applied to the multi-department collaborative supervision scenario of water resources protection in energy development. Its working principle is "decentralization" in the distributed supervision network composed of various supervision departments related to energy, ecological environment, and water conservancy. It is characterized by the fact that each oversight department is a node that constitutes the oversight network and can participate in the oversight process. Data information such as the scale data of energy bases/proposed energy projects collected by the energy department, water abstraction and water consumption data of energy enterprises collected by the water administration department, and water quality and ecological environment water consumption monitored by the ecological environment department will enter the blockchain, and the department generating the data can receive data information from other departments while retaining the data collected by itself.

Conclusion

The water crisis in China's energy development and getting out of the legal dilemma of water resources protection also have new requirements in the new stage, that is, the current development of energy industry needs to better break through the

local water resources carrying capacity, maintain the balance between "Jinshan Yinshan" and "green water and green mountains", and take the local water resources carrying capacity as the "red line" for the development of energy industry, so that energy development and economic development cannot be at the expense of the ecological environment. Only when the energy policy lawfully respects the objective law of the correlation between energy and water, can the scientific energy policy law promote the smooth implementation of the energy legal revolution and establish a more powerful foundation for realizing the overall goal of the national governance system and governance capacity.

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