Chapter 11

Energy Justice and Construction of Community with a Shared Future for Mankind

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Abstract The Western approaches on energy justice mostly link energy access to basic need and rights of individuals. These approaches are mainly based on the rights-justice theory of traditional political philosophy. Though Sovacool et al. (Applied Energy 142: 437, 2015) introduce the dimension of moral philosophy and ethical responsibility into the study of energy justice, their standpoint remains individual freedom, equality, and responsibility. However, energy issues are not only a matter of individual rights and responsibilities, nor are they only problems of the distribution and commitment of the accessibility and environmental consequences of energy consumption. From the very beginning, energy issues involve the issue of inter-subject relationships, involving both the responsibility of individuals and of collective subjects. Therefore, it is necessary to jump out of the traditional mode of thinking of individual rights theory and individual responsibility.

Based on the traditional Chinese philosophical ethical resources, mainly the Confucian thoughts on hexie (harmony) and yi (just), the “Tianxia” (world) view, and the reflections from the tradition of community both from the West and East, this article links energy justice to the construction of community with a shared future for mankind and puts forward that the foundation of energy justice lies in how to construct the relationship between the subjects (both individual and collective) of justice in the community with a shared future for mankind. Through cases of Yulin and global carbon emissions about energy justice, we propose a holistic perspective on energy justice inspired by the idea of the community with a shared future for mankind, and then point out that we should deal with the four major relations involved in the complete process of energy acquisition, distribution, utilization, and post-processing, in order to build a just energy system. Finally, we propose three possible strategies to deal with issues of energy justice, that is, specific strategy, real-time strategy, and holistic strategy, which may shed some light on the global issues of energy justice.

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Energy is the resource on which human beings live. With the rapid development of the global economy and the gradual decrease or even exhaustion of fossil energy, discussions on energy have already covered economy, technology, politics, military, and other fields and become an important issue in global politics. On the one hand, economic development and rise of people's living standard consume a large amount of energy, especially in developing countries such as China; obtaining and using energy has provided power and guarantee for production and development of economy, as well as great convenience for individual life. In the rural areas in the economically developed areas along the east coast of China, sufficient and diversified supply of energy solves the problem of clean energy in rural life in the past, and also promotes the development of individual economy. The popularity of private cars in urban areas, brought great convenience of travel for many more than middle-income families. However, for China, which has a large population and is dominated by fossil energy such as coal, oil and natural gas, its proven coal reserves reached 138.819 billion tons, and the output reached 3.523 billion tons, proven oil reserves reached 3.542 billion tons, and its oil output reached 192 million tons, proven natural gas reserves reached 5.52 trillion cubic meters, and its natural gas output reached 133.007 billion cubic meters in 2017. At the rate of extraction in 2017, coal will be available for about 39 years, oil for about 18 years, and natural gas for about 41 years (BP 2018; Ministry of Natural Resources of the People's Republic of China 2017b). A large amount of development and consumption of energy has brought great challenges to sustainable development. A large quantum of carbon dioxide emissions from the use of fossil energy is the most important reason for the emergence of urban haze. According to statistics, in 2017, there were 2311 day times of high-level pollution (the regional air quality index (aqi) ranges from 201 to 300 (including 300) for 72 consecutive hours) and 802 day times of severe pollution (the regional air quality index (aqi) ranges from 301 to 500 (including 500) for 48 consecutive hours) in 338 cities at or above the prefecture-level in China (Ministry of Natural Resources of the People's Republic of China 2017a), which had a great impact on public health.

The international community has been committed to global sustainable development. The United Nations commission on sustainable development, which was approved in December 1992, has done a great deal of work in this regard. Since 2004, it has paid more attention to the assessment and implementation of sustainable development goals and obstacles and has examined the progress of the implementation of "*Agenda 21*" and the "*Rio Declaration on Environment and Development*." It has played an important role in promoting the eradication of poverty and the protection of natural resources and the environment. However, due to the multiplicity of the internal dimensions of sustainable development, countries always proceed from their own interests in the understanding of the content of sustainable development, so they cannot reach agreement on many key issues.

Energy and environmental problems have also attracted the attention of international academic circles. From the birth of environmental ethics to the concept of energy justice and climate justice, people defend sustainable development from different perspectives such as political philosophy, ethics, economics and international

relations, and try to find a theoretical way to solve energy justice. This article will attempt to examine the issue of energy justice from the perspective of the “community with a shared future for mankind.” Starting from the concept of “harmony” in traditional Chinese philosophy and the concept of “World (Tianxia) system” proposed by Chinese scholar Tingyang Zhao in recent years, it will explore a Chinese approach to solve the problem of energy justice. The article will analyze the discussion about energy justice in recent years firstly and then expound the Chinese viewpoint of energy justice which is based on Chinese harmonious thought.

11.1 Existing Research Approaches to Energy Justice

The term “energy justice” was first used in academic research in 2010. The second article in 2013 focused more on ethical consumption, and the “Energy Justice in a changing climate” published in 2013, focused more on climate change. None of these documents seriously defined the concept of energy justice. Since 2013, energy justice has gained more attention and become a research object. From early 2013, the concept came into being (Heffron and McCauley 2017). Scholars mainly aimed at justice problems of obtaining or distribution in the use of current energy (mainly the traditional fossil energy), as well as the carbon dioxide emissions involving responsibility assignment, problems of energy use, etc. In general, the research approaches can be summarized as follows: right justice theory, procedural justice theory, and responsibility justice theory.

11.1.1 *The Approach of Right Justice Theory*

The early studies of energy justice mainly focused on the energy access of “vulnerable groups,” emphasizing that every individual, regardless of gender, region, race, and class, has the right to access energy to ensure basic food, clothing, and health. With the development of energy justice research, Diana Hernandez believes that a full view of energy justice must take into account the complete spectrum of issues from production and distribution to ethical consumption and government regulation (Hernández 2015). Benjamin K. Sovacool and Michael H. Dworkin defined energy justice as a “global energy system” (Sovacool and Dworkin 2014). Energy justice is no longer limited to the accessibility of energy problem but also pays attention to the whole chain of energy utilization, all participants on the benefit and harm of justice, in a more systematic view that concerns justice problems in energy use. Benjamin K. Sovacool et al. further expanded the rights guaranteed by energy justice and injected new connotations such as happiness, freedom, equality, and due process (Sovacool and Dworkin 2015).

Many other scholars have studied the justice of the distribution of energy as resources and the distribution of energy-related benefits and damages from the per-

spective of distributive justice or studied the “recognition justice” in which special groups are known, recognized, and respected, the essence of which is still to emphasize the satisfaction of individual rights. This research approach mainly put forward that the realization of energy justice should make use of regulations, laws, and other rights to guarantee equality or distributive justice and guarantee the realization of individual equal rights through procedural justice. Wan Junren, a Chinese scholar, proposed to elevate energy rights to basic human rights and realize energy justice from the aspect of human rights protection (Guanghui and Junren 2015).

11.1.2 The Approach of Procedural Justice Theory

Procedural justice is regarded as one of the core principles of energy justice, or even a part of energy justice. It is not only the goal and principle pursued by energy justice, but also the specific means and methods to achieve energy justice. Procedural justice is mainly reflected in the formulation of energy policies. Attention should be paid to the right of participation, information, and supervision of different levels and groups to ensure that their interests or basic energy needs can be guaranteed in practice. Kirsten Jenkins and Darren McCauley believe that procedural justice is underpinned by access to and pressure from multi-level legal systems. It is also driven by softer nonregulatory influences such as practices, norms, values, and behaviors. Therefore, they propose to strengthen mobilizing local knowledge, such as the local ecosystems and cultural habits, which is of practical significance for subsequent effective consultation and representation. They also raised the importance of information disclosure and suggested that the representation of institutions be strengthened (Jenkins et al. 2016).

11.1.3 The Approach of Responsibility Justice Theory

Although it is still difficult to define the responsibility distribution of environmental degradation caused by the emission of carbon dioxide due to the use of energy, it has attracted more and more attention and discussion from scholars. Benjamin K. Sovacool and Michael H. Dworkin believed that the distribution of responsibility for environmental and social hazards should be associated with energy production and use without discrimination (Sovacool and Dworkin 2015). Kirsten Jenkins et al. further emphasized the importance of responsibility in energy justice, and presented that responsibility should go beyond individual responsibility and focus on the responsibilities of NGOs, companies, and government and other groups (Jenkins et al. 2017). At present, some governments implement the policy of “carbon tax” to “regulate” the limited groups or major groups, which is the specific practice of the responsibility distribution of carbon dioxide emissions. However, in the global context, there have not been consensus and universal agreement and regulation, and the scope of practice is also very limited.

In addition to the above typical and systematic research approach, Kirsten Jenkins and Darren McCauley, etc., believe that the more pronounced “systems” thinking of energy justice is needed, and a combination of the social science account of energy (policy) with its natural science counterpart (systems) should be advocated (Jenkins et al. 2016). This is very consistent with the global and complex nature of energy use and its interdisciplinary nature. Raphael J. Heffron, Darren McCauley, and Benjamin K. Sovacool argue that the government is facing a trilemma of energy policy, and that the “trilemma” is a high-profile summary of the many areas of energy: economy, politics, and environment. They also propose measures of energy justice, hoping to use economic models to develop a concept that can calculate costs and produce results that are easily understood by the public, creating a balanced triangle between the “trilemma” that goes beyond the economy-led pattern of the past (Heffron et al. 2015). This is the first time that quantitative analysis has been applied to the study of energy justice. This quantitative analysis method undoubtedly provides important reference data for the realization approach of energy justice. More importantly, it seeks to solve the contradiction between energy utilization and environmental protection from an overall perspective.

Most of the above studies on energy justice relate the acquisition or distribution of energy to the basic needs and rights of individuals, and the research approach is mainly from the terms of individual freedom, equality, and responsibility. However, energy justice is not limited to individual rights and responsibilities, also is not only the accessibility of energy and the distribution and bearing of the environmental consequences, it also involves the contradiction between human development and environment deterioration, the contradiction between individual rights and the interests of the whole human and the contradiction between contemporary and future generations in energy use and environment, etc. Energy justice is a systematic and holistic problem involving the interaction between human and nature, individual and individual, and individual and society. Therefore, it is necessary to break away from the traditional thinking mode of individual right theory and individual responsibility and seek a new solution approach for the realization of energy justice from the perspective of the whole human existence. This paper argues that the concept of the “community with a shared future for mankind” provides a systematic and holistic perspective for the discussion and settlement of energy justice issues.

11.2 What Is the Community with a Shared Future for Mankind?

In the Western academic circles, the pursuit of the community is nothing new. As American scholar Philip Selznick pointed out, “Many thinkers - Hegel, Marx, Dewey, and so on, including several popes—have looked for possible choices, in their view, to use communitarianism instead of a depletion of the morality, and the lack of understanding of human society (Selznick 2009).” These big thinkers have a lot of discussion about the community, but if you want to trace the concept of the

community, Aristotle in ancient Greece should be the earliest advocate of the community. Both Hegel and Marx were inspired by Aristotle's *Politics*. It can be said that the communitarian tradition of "Aristotle-Hegel-Marx" is an important source of thought in contemporary Western communitarianism (Yitian and Weijie 2013).

11.2.1 *The Idea of Community – in the West*

As early as in the era of ancient Greek city-state politics, Aristotle pointed out in his *Politics* that human beings are political animals in nature. Anyone who is not part of a state "must be either a beast or a god." All in all, not people. Here, Aristotle's "city-state" is a political community. Aristotle's argument for the social and political nature of man is carried out along three lines of thought. First, the holistic approach is to think that the whole is ahead of the part and the whole is bigger than the individual. He believes that, in terms of nature, all must precede the part, and the individual must be in the community. Second, non-self-sufficiency of the individual. In Aristotle's view, each individual is not self-sufficient. It is difficult to satisfy all the needs of self-survival by his own strength. Only living together in the city-state, everyone's needs can be maximally satisfied with each other. Third, the pursuit of a good life. Aristotle pointed out that although the emergence of city-states is the natural development of human life, the life of everyone in the city-state can be fully self-sufficient, but the existence of city-states is not only to satisfy people's survival, but for "excellent life"(Aristotle 2009). This is another characteristic that distinguishes people from animals, that is, people organize themselves for the purpose of living a good life.

Aristotle's view of the priority of the community is repeated in Hegel as a part of his dialectics. In the book *Elements of the Philosophy of Right*, Hegel explicitly criticizes the atomic individuals portrayed by modern social contractarian and advocates the concept of an ethical entity. Hegel argues that the state should be the reality of ethical ideas, and the ethical idea is what McIntyre calls "the customary morality of every particular society" (MacIntyre 1984). The practice and cultivation of this customary morality constitute a "second nature" (Hegel 2009) that is different from our natural nature. According to Charles Taylor, Hegel's doctrine of placing ethics (German, *Sittlichkeit*) at the top of moral life must have a social concept of living as a broader community (Taylor 2009), and individuals must exist as a member of the community. In this way, ethics means the moral responsibility of the individual to the real society in which he lives. Individuals can only obtain a complete moral existence within the community, and the individual is within the community. Therefore, only when a country is a reality of ethical ideas can it be an ethical entity, a community in the Hegelian sense.

On the basis of Aristotle's and Hegel's arguments, Marx further refined and developed the relevant community thinking. Marx and Engels pointed out in *The German Ideology*: "Only in the community, individuals can obtain the means to fully develop their talents. That is to say, only in the community can there be indi-

vidual freedom (Marx and Engels 2009a).” By placing individuals in the community among them, our understanding of the individual has undergone a substantial change. The individual is not “Robinson on the island” (Marx and Engels 2009b), but the person within the established historical conditions and social relations. The essence of human beings is understood as the sum of social relations. Therefore, in Marx, the perspective of unloaded self and individualism is no longer the first place in terms of how to look at the nature of human beings. The community becomes the big premise of our understanding of individual rights, freedoms, and living conditions.

11.2.2 *The Idea of Community – in China*

In the context of Chinese thought and culture, we can also discover the germination and development of the thought of community. First of all, the traditional Chinese society is a community life form based on the blood patriarchal system. Under the situation of agricultural production and life based on blood patriarchal system, people follow a kind of ethical requirements, such as “to be benevolent love the benevolent man loves others” (Meucius 1970) (*Mencius • Lilou*), “you yourself want position, so you give position to others; you’re yourself want to advance, so you advance others”(Confucius 1998), and “what he himself does not want, let him not do it to others”(Confucius 1998). Secondly, the traditional Chinese culture as represented by Confucianism has the civilized tradition—“the nearest is happy, the distant is coming,” the community consciousness of good neighborliness and friendship, and the concept of world peace and human consciousness. This unique “world (Tianxia)” view of Chinese civilization is the earliest and most systematic philosophical view of the world from a holistic perspective. The holistic perspective from Chinese traditional philosophical thought is very different from the Western holistic idea which emphasizes that the interests of the whole are greater than the sum of the interests of the individual, and the interests of the individual are based on the status and role of the individual, while the Chinese holistic perspective generally emphasizes the harmony of the relationship between the individuals in the whole. The ancient Chinese people have long believed that: “the world is not the world of a certain person, but the world of all the people. The Yin and Yang are consistent, not only grow one species. When the nectar rains, it is for all the people under the heaven. The Emperor of the people does not favor one person.” (Shuangdi 1986). The ancient Chinese called the “world (Tianxia)” to imagine China’s Central Plains in terms of geography, at that time entire “China.” However, from the perspective of the whole country, the ancient Chinese thoughts analyze and deal with the whole world. The problems faced by mankind together show the visions of the awareness of a world community with a shared future and the whole mankind. It advocates the concept of “when the great way is followed, all under heaven will be equal,” the symbiosis of the world, the harmonious idea of the world, and still has positive contemporary values today (Rui 2018).

11.2.3 The Fundamental Principle of Construction of Community with a Shared Future for Mankind

“The community with a shared future for mankind” is a concept with extremely rich political and philosophical connotations. According to Susan Love Brown, the community is a complex concept—a social group with a common cultural and historical heritage or a group that shares character and interest and lives with them is distinguished by the larger group. Community is also a sign that abstractly connects with other aspects—what is shared in a spiritual community, although sometimes it is transitory. This means the community will cross boundaries such as space and time, and let our understanding embrace those unrestricted connections: common history, common practice, common understanding, and common identity, which seem to be ubiquitous, regardless of where we go, or what we do. In this way, the community seems to have no boundaries, because we can imagine a human community: “it encompasses all human beings from the beginning of human existence to the end of human existence (Brown 2002).” That is, if the concept of the community is defined from different perspectives, its extension can be very different, including small to family, large to all mankind. Conceptually, the concept of the community, at the lowest level, that is, what is shared between different actors or human beings? This sharing can be language, culture, customs, beliefs, etc. At the highest level, it is the strong bond between the human beings who are intimate, or the spiritual or spiritual bond formed between them. And between the lowest level and the highest level, there is also an intermediate level, that is, the sharing of benefits or the sharing community. Chinese scholar Gong Qun believes that the “community with a shared future for mankind” should be regarded as the largest community in the extension of the concept. It emphasizes that different countries and nations live together on this planet, and they have a life-and-death relationship. The emerging high technologies provide more possibility to the global economic integration, cooperation, and development, and we have seen quite some experiments in this perspective. However, we still have many challenges to face, like the challenges in the field of energy justice. Countries have gradually formed a blending pattern of interests among you and me. Therefore, the fundamental criterion for building the community with a shared future for mankind is the principle of justice (Qun 2018).

11.2.4 International Justice

Justice in the contemporary world from the perspective of the community with a shared future for mankind involves international justice, universal justice, and environmental justice. As far as international justice is concerned, it refers to a community built on the basis of state-to-state association, adherence to the principle of sovereign equality, respect for all nation-states, different cultures, and civilizations. This community is based on the premise that all local human communities are

respected and developed, that is to say, it is a community that can be constructed under the premise of fully respecting the autonomy, independence, cultural individuality, and civilizational characteristics of different nation states. On the other hand, we must recognize the profound inequality between developed and developing countries in economic and trade exchanges in terms of economic justice. This wide and profound inequality is caused not only by historical factors, but also by actual differences in the level of scientific and technological development and the formulation of economic order rules. The vision of a community with a shared future for mankind includes such concepts as “shared interests” and “win-win cooperation” in the economy. The community with a shared future for mankind inherently contains the concept of the equality of economic rights, and the contemporary world economic development as well as the rules of the world economy shows that this right between developed and underdeveloped countries is not equal; therefore, to strive for a fair justice of economic environment is one of the most important missions of building the community with a shared future for mankind.

11.2.5 Universal Justice

Universal justice in the vision of the community with a shared future for mankind involves every human individual or every human being and regards every human being in the world as a basic or ultimate unit of concern. Every human being is not only a member of a nation-state community, but also a member of the community with a shared future for mankind in a sense that transcends the nation-state community. In this regard, every human individual has the membership of the human community and thus enjoys the basic rights of membership. In other words, to guarantee the basic human rights of every human being, as well as human dignity and equality, is the basic requirement of universal justice and the fundamental requirement of building a community with a shared future for mankind. “For every human individual, as the ultimate unit of moral concern, there is a global moral stature (Pogge and Kant 2010).” To regard every human individual as the ultimate unit of moral concern is to treat every individual equally, which means to regard all individuals as equal individuals and emphasize that everyone’s interests should be considered equally.

11.2.6 Environmental Justice

Environmental justice in the vision of the community with a shared future for mankind is a just condition for the existence of the community with a shared future for mankind on earth. Environmental justice includes two aspects. The first is the destruction, plunder, and pollution of the earth’s environment caused by human activities, which leads to the justice of human’s relationship with the environment.

Second, the destruction and pollution of the earth's environment and the greenhouse effect by countries in different regions have raised the issue of justice in governance. All human beings live together on the earth, the only home of human beings. The earth carries human beings, and its ecological environment is the destiny of human beings. At the same time, the development of human history to such a historical period, the whole of mankind as a community to build is not only the need for common development of mankind, but also the common development of the inevitable choice. It is the sacred mission of mankind to build the community with a shared future for mankind and jointly build a better earth.

11.3 Energy Justice from the Perspective of Community with a Shared Future for Mankind Applied to China

Community with a shared future for mankind is not only a beautiful philosophical idea and concept, but also plays a role in guiding the implementation of energy justice or policymaking. The following part will start from the relationship between energy justice and the community with a shared future for mankind and take the domestic and international challenges currently faced by energy justice as examples to discuss the possible solutions to energy justice from the perspective of the community with a shared future for mankind.

11.3.1 The Relationship between Energy, Justice and Community with a Shared Future for Mankind

In fact, even in the history of Western philosophy, the concept of justice from the perspective of community or overall harmony has a long history. In the history of Western philosophy, justice has been the core concept of philosophical ethics since ancient Greece. In Plato's view, justice is regarded as a kind of order law, and the embodiment of this order law in the city lies in the three professions of the city: ruler, soldier, and ordinary laborer have corresponding different virtues in different positions, each in his proper place and each in his duty, so as to ensure the harmony of the whole operation of the city. Plato said, "a city was thought to be just when each of the three natural classes within it did its own work" (Plato 1997). That is to say, justice is consistent with the overall harmony of the city-state as a community. Aristotle inherited and developed Plato's thought. On the one hand, starting from the political animals characterized by social groups, Aristotle regarded the interests of the city as the place where justice is based, and believed that justice is "to live together in self-sufficiency, to achieve equality through proportion or to be equal in quantity" (Aristotle 2003). On the other hand, he points out that justice is not only of overall significance, but also related to individual interests, including honor and

wealth. In the distribution of these benefits, there is inequality, that is injustice. Therefore, justice consists in the distribution according to the corresponding contribution, in proportion to the distribution, the distribution not in proportion is injustice. Justice here contains the meaning of equality and fairness.

Although there is also a holistic interpretation of justice in the history of Western philosophy, it is quite different from Chinese philosophy's interpretation of justice from the perspective of relational justice. In China, the thought of "justice" is a further development of the thought of "yi," which plays an important fundamental role in the traditional Chinese moral value system and moral practice. In ancient Chinese, "yi" was the same with "appropriate," means "appropriate for people." The traditional characters "yi" and "appropriate" are both interpreted as "appropriate morality, behavior or reason" (Shen 2015). The explanation of "yi" in the *book of Rites · Mean* is concise and comprehensive. "Yi" means "appropriate" and "should." Xunzi also grasped the appropriateness of "justice" from a rational, reasonable, and appropriate dimension, and for the first time combined "yi" with "justice." Justice emphasizes the individual virtues, especially the individual virtues of a gentleman or a politician. However, justice is not only about personal morality, but also about the public morality of properly and appropriately handling various social relations, international relations, and relations between mankind and nature (Guiyan and Jinyang 2016). Sor-Hoon Tan's points out that the concern of "yi" is "overwhelmingly about the effect of actions on specific interpersonal relationships, actual or potential" (Sor-hoon 2015). Chinese scholar Zhao Tingyang also put forward that, "we call the principle of legality of expressing interpersonal relationship justice, which is similar to the traditional Chinese concept of 'yi'" (Tingyang 2009).

The interpretation of "yi" or "justice" from the perspective of relationship in Chinese philosophy is exactly consistent with the multidimensional concept of "relationship" contained in the "community with a shared future for mankind." At the same time, energy as the material basis for human survival and development bears on the common destiny of all mankind. Therefore, it can be said that energy justice and the concept of the "community with a shared future for mankind" have intrinsic commonality in theory and external homogeneity in reality. To examine the justice issue common to all mankind in energy utilization from the perspective of "community with a shared future for mankind," we need to deal with the following relations.

11.3.2 The Relationship Between Economy, Safety, and Environment

The economic, security (politics) and environmental aspects of energy utilization are considered to be the "trilemma" by some scholars. Economic development and energy utilization are in positive growth. Economic development is the trend of human history and the goal pursued by mankind. Energy is the indispensable

propellant of economic development. However, with the growth of economic development's demand for energy, the use of energy presents an imbalance, which often leads to a country's energy not being able to meet its development needs. The global nature of energy utilization becomes increasingly prominent, and the interdependence of energy utilization brings about national security or political problems. At the same time, the utilization of energy, especially the carbon dioxide emitted by burning fossil fuels, has brought serious environmental problems. How to balance the relationship between these three parts is the primary problem of energy justice.

11.3.3 The Relationship Between Individual's Energy Needs and Mankind's Needs/The Mankind's Need for a Clean Environment

The utilization of energy ensures individual food and clothing, improves the quality of life of individuals, these being crucial for every individual on the earth. However, as a relatively scarce resource at present, the amount of non-renewable energy represented by coal and oil is decreasing year by year. In addition, due to limited technology and cost, new energy has not yet reached the level of large-scale utilization and complete environmental protection. From the perspective of humanity as a whole, the consumption of energy by some individuals is bound to reduce the use of energy by others, especially future generations. At the same time, the accumulation of individual energy utilization has caused environmental damage, which also contradicts with the human need for a clean environment.

11.3.4 The Relationship Between Mankind's Need for Energy and the Balance of Nature

Mankind is a part of nature, and energy is also a part of nature. As mentioned above, mankind and energy are symbiotic and equal. However, human's use of energy, especially fossil energy, is a plunder of nature, which destroys the balance of nature and violates the ancient Chinese concept of "unity of man and nature." Take Yulin in northern Shaanxi, China as an example. Yulin's economy is resource-based. In the twenty-first century, with the rapid economic growth, the strong demand for energy market drives the rapid development of Shaanxi's energy industry. It is estimated that 150 million tons of abandoned soil and slag are discharged from the exploitation of oil and gas fields in northern Shaanxi, with an annual increase of 18 million tons of soil and water loss. In Yulin, 17,300 hectares of vegetation have been destroyed and 20,000 hectares of land have been degraded due to wind erosion (Huiqin 2010). These lands have been unable to grow food crops, brought the local agricultural and ecological environment great impact. This also shows that the

destruction of nature by human beings also brings crisis to the survival of human beings themselves.

11.3.5 The Relationship Between New Energy Development and Traditional Energy Utilization

Although the current utilization of new energy is still in the primary stage, but almost all mankind agrees that new energy in the future will replace traditional fossil energy and actively develop new energy. However, countries can largely differ not only in their resources, economy, science, technology and legal conditions, but also in their layouts of the old and new energy as well as development. Combined with that situation, the development of new energy and the replacement of traditional energy in the future may bring about indirect justice problems such as pollution and serious unemployment; therefore, we should not promote the progress of new energy all at the same pace.

Good to deal with above relations, first of all, we should think energy acquisition, distribution, utilization (consume), and post-processing (carbon) as a complete process, rather than to simply emphasize one link in the realization of justice, then put this process under the vision of community with a shared future for mankind, make “harmony” as the goal and method, from the perspective of “world system” of the overall balance of these relationships, refactoring the value system of energy justice.

The cases of energy justice in China and the World

In the case of China, let us start with a look at the country’s energy situation and the challenges it faces. China’s natural geological conditions determine the characteristics of its energy base, that is, complete energy mineral resources, but less per capita ownership, uneven distribution, and backward resource structure. To be specific, China’s natural resources are unevenly distributed among the provinces. Taking Yulin area of Shaanxi province as an example again, the unreasonable and predatory development of Yulin’s resources has aggravated the destruction of ecological environment, making the contradiction between population, resources, and economic development more and more prominent. From the perspective of energy justice, the causes of the lack of energy justice in Yulin region can be summarized as follows: first, the regional difference and differentiation of energy distribution are the structural premise of the lack of energy justice in this region. Differences in energy distribution will affect land development and regional development. The uneven regional distribution of energy has a direct impact on the development of resource-based industries, and thus leads to the differences in the distribution of resource-based industries in China’s east, central, and west regions. The eastern region is a

major energy consumption region, and the central and western regions have become the center of China's energy production. The east is not paying higher costs for consuming a lot of energy, and the mid-west is not implementing a resource proliferation program to protect the environment. The problem of unbalanced regional supply and demand of energy is prominent, which has resulted in a more significant deterioration of inter-regional relations of resources. Second, the economic and environmental effects of industrial development are not good enough. Many resource-based regions fail to truly get rid of the strategic constraints of energy development, and the interest compensation mechanism fails to play an effective role, making the output of energy raw materials in a low value-added way. Third, the interest distribution mechanism and fiscal and taxation policies of energy are unreasonable. In the distribution framework of energy benefits, enterprises represent the state to occupy and obtain the most part, and the central government gains profits through taxes and fees and the most important profit sharing. Local governments, on the other hand, mainly collect taxes and fees to obtain their own income. As a result, there will be an imbalance in the distribution of interests between state-owned enterprises and local governments, between enterprises and local residents, and between the places where energy is exported and imported, which makes it difficult for energy advantages to be transformed into local economic and financial advantages. Finally, ecological compensation mechanism is missing. For decades, China's resource-rich western regions have been sending resources to the developed regions, but the developed eastern regions have not given enough compensation to the western regions. To some extent, this way of economic development, which involves the predatory development of energy resources and the transfer of ecological crisis, is at the expense of underdeveloped regions. Addressing the observed energy injustice in Yulin energy region requires the institution and strengthening of community consciousness and acting in unity with nature including maintaining corresponding responsibilities and obligations and appropriate ecological compensation mechanism. These will be necessary to ensure regional harmony and improved ecological environment.

Another case of energy justice is the issue of global carbon emissions. If in the 1970s and 1980s energy security meant ensuring adequate supplies of oil at low prices, today, it covers broader issues beyond oil supply. Energy is linked to economic development and other global issues such as climate change (Cherp and Jewell 2014). In the area of global energy governance, the first and most important change is linked to the issue of global climate change and "carbon reduction" in the global economy. Energy production and consumption are the biggest sources of greenhouse gases, accounting for nearly 70% of global emissions (International Energy Agency 2014). World carbon emissions continue to rise because countries and markets change slowly. There is a power imbalance between carbon emissions and climate change. Developed countries have historically enjoyed the benefits of climate-damaging economic activities, while at present it is mainly developing countries that bear the consequences of climate change. It was the historical emissions of developed countries that caused the current climate change problem, but

now, developed countries will gain new institutional powers because of their participation in global governance of climate change. This injustice is double. The historical emissions of developed countries have given rise to the political and economic advantages that they dominate the world today, and will give rise to new political and economic advantages now, such as new energy development, carbon markets, and low-carbon technologies, in response to climate change (Laihui 2016). Today, the world is already in the age of Anthropocene, man-made climate change has posed a serious threat to the earth and human civilization, and carbon emissions have become as destructive as nuclear weapons. Therefore, we need to construct a community with a shared future for mankind under the guidance of such a holistic concept, with the mission of jointly building a better earth. China has taken a series of corresponding actions, such as carrying out carbon trading pilot projects in seven provinces and cities, including Beijing, to gain experience in exploring ways to form a national carbon market from the bottom up. These measures have achieved positive results in energy conservation and emission reduction. In 2016, China's energy saving accounted for 60% of the world's total energy saving. China accounts for 61.3% of the world's total carbon emissions reduction (Jieyu et al. 2019).

Through the above two cases at the domestic and international levels, we believe that energy justice involves international justice, universal justice, and environmental justice from the perspective of the community with a shared future for mankind. First, from the perspective of international justice, in the process of energy development, production, and consumption, countries should adhere to the principle of sovereign equality, respect and accommodate the different cultures of different countries, and respect the independence of nation-states. In terms of economic justice, there are profound inequalities between developed and developing countries, and the concept of the community with a shared future for mankind also includes economic "benefit sharing" and "win-win cooperation," namely, the equality of economic rights. Second, from the perspective of universal justice, every human being in the world, as a member of the community with a shared future for mankind, is the most basic and ultimate unit of concern, and thus enjoys basic rights as a member. Therefore, in the aspects of energy development, production, consumption, benefit distribution, and ecological and environmental risk taking, we need to treat each individual equally, and everyone's interests should be considered equally. Thirdly, from the perspective of environmental justice, we need to pay special attention to the issue of human's environmental justice and environmental governance justice. All human beings live together on the earth, the earth is carrying human beings, and its ecological environment is the fate of mankind. Therefore, jointly building a better earth home is the sacred mission of contemporary mankind.

Specifically, China was still the world's largest energy consumer, accounting for 23.2% of global energy consumption in 2017. It can be said that China is a real energy giant. As a very large developing country, China's energy use has a sharp contradiction among economy, security, and environment. China's rapid economic growth has increasingly increased its demand for energy. In 2017, China's energy consumption increased by 3.1%, ranking the top in global energy growth for seventeen

consecutive years and accounting for 33.6% of global energy consumption growth. At the same time, China's own energy storage and development cannot meet the needs of the economy, and the external dependence of energy is increasing year by year. In 2017, the external dependence of petroleum was 68.52%, which reached the highest level in history at that time, and the external dependence of natural gas also reached a new high, reaching 37.93%. Rising energy dependence has become a potential threat to China's national security. China's resource endowment is characterized by "rich coal, poor oil and little gas," which determines that China's energy use is dominated by coal. In 2017, coal accounted for 60.42% of China's energy consumption, and coal combustion is the main source of carbon dioxide emissions. Therefore, the environmental problems caused by coal-dominated energy use are increasingly prominent (BP 2018).

11.3.6 Strategic Principles for Constructing a Just Energy System

We are facing a "policy trilemma" in how to implement the principles and requirements of energy justice in global energy governance, namely, how to ensure energy supply, protect global climate, and reduce energy poverty, especially in developing countries (Cherp and Jewell 2011). How to balance security and environment with economic development is also the primary problem in China's current energy utilization. Starting from the concept of community with a shared future for mankind, there are several strategic principles for constructing a just energy system.

First, specific strategy. In other words, we are required to analyze specific problems on a case-by-case basis and determine specific energy development policies according to different regions, energy distribution, and energy consumption. At present, China's oil and natural gas consumption has reached a high level of external dependence, and the development trend of renewable energy is getting better. However, limited by the level of scientific and technological development, China's utilization capacity of renewable energy is still very limited. In 2017, China's non-fossil energy accounted for 13.56% of the total energy consumption. The above situation led to that China cannot follow the successful energy utilization mode of some countries. China is abundant in resources endowment of coal which will be still the main body of China's energy consumption in a long time. In a certain period of time. China can't, like other countries, cancel or reduce the massive coal use or transition to "oil era." China should, according to their own resources and development, reasonably layout the energy structure, problem-oriented management, rather than blindly following the energy path of other developed countries.

Second, real-time strategy. In other words, it requires us to assess the situation, make an immediate assessment and judgment on the specific situation of energy development, and adopt an open and dynamic attitude to timely adjust the energy

development strategy. As mentioned above, to determine the dominant position of coal in China's energy use, it is necessary to address the existing problems in current fossil energy, especially coal utilization. At present, the main problems existing in the utilization of traditional fossil energy (including coal) in China are low efficiency of development and utilization, low level of scale, serious waste of resources, and low efficiency of conversion and utilization, and the proportion of high-quality energy in terminal energy consumption is low. The regional distribution of energy resources is different; many economically developed areas are energy poor, and the reverse distribution of energy production and consumption seriously affects the rational allocation and efficient use of energy. Based on these factors, China first needs a large amount of investment in science and technology to improve the efficiency of the use of fossil energy and clean use of fossil energy.

Third, holistic strategy. In other words, the whole process of energy development, production, and consumption involves stakeholders at different levels. Therefore, when it comes to major issues related to individual or human interests and basic principles, the interests of different stakeholders should be ensured based on the holistic interests of mankind. If the community with a shared future for mankind embodies the idea of a "great society," then the members of the community should not only reach consensus on the community, but also achieve substantial common development. Such development is not spontaneous, and it cannot be achieved without the coordination of entity organizations at a higher level. A more prominent problem in China is the imbalance between urban and rural development, which is particularly evident in the use of energy. At present, in some China's rural areas, energy access is relatively backward. Combined with the current trend, the energy utilization should be based on local conditions and local materials in China's rural areas in the future, for example, adopt the method of distributed solar energy and biomass energy supply system. At the same time, limited to the level of rural economic development and science and technology, the national government must play a coordinating role, through policy guidance, in the form of subsidies and macroeconomic regulation and control.

11.4 Conclusion

In the process of the current global energy development, production, and consumption, seeking for the ethical principles which are out of economic and technological means, and seeking for the sustainable development of mankind become the most pressing needs. Based on the traditional Chinese ethical resources and the reflections on the tradition of community, this chapter links energy justice to the construction of community with a shared future for mankind and puts forward that the foundation of energy justice lies in how to construct the relationship between the subjects (both individual and collective) of justice in the community with a shared future for mankind. Through cases of Yulin and global carbon emissions about energy justice, we propose a holistic perspective on energy justice inspired by the

idea of the community with a shared future for mankind, and then point out that we should deal with the four major relations involved in the complete process of energy acquisition, distribution, utilization, and post-processing, in order to build a just energy system. Finally, we propose three possible strategies to deal with issues of energy justice, namely, specific strategy, real-time strategy, and holistic strategy, which may shed some light on the global issues of energy justice.

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