ENERGY LAW UNDER INCREDIBLE SHORTAGE:

REVIEW FROM THE PERSPECTIVE OF INSTITUTIONAL STRUCTURE

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Abstract: In 2021, the global energy shortage affected nearly every country around the world, and it took place quite suddenly. Desperation spread among people suffering from COVID-19. Many were seeking a reasonable explanation for this puzzling circumstance. This led to increasing attention on the energy market, a topic now heatedly discussed by scholars, and legal regulation has become one of the most common aspects to examine. This article will present the current outcomes of the analysis of this aspect through a comprehensive perspective of institutional structure, drawing on thoughts from economics, politics, international law, and law doctrine. A deduction will be made from these ideas to help analyze the formation, developing tendencies, and ideal design of energy institutions, as well as the derivation of their structure. Paths from global transitions will be applied and will certainly address human rights concerns simultaneously.

Keywords: Energy Market; Legal Regulation; Institutional Structure

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Table of Contents

Introduction 74

I. In-Depth Research on Existing Outcomes 75

A. Case Analysis: Energy Strike in North China and Chinese Legal Regulation on Energy 76

1. Power Restriction in Northeast China 76

2. Energy Law of China 76

B. Comparative Research: Energy Law of US, EU, and Other Representative Regions 79

1. Energy Law of the US 79

2. Energy Law of the EU 80

3. Energy Law of Australia 81

II. "Rechtsdogmatik" for National Legislative Models: Benthamist, Constructive, Realistic(Mimetic) and Internationalist 82

A. Energy Law Under Benthamist Perspective 83

B. Energy Law Under Constructive and Realist Perspectives 85

1. Constructivists' Energy Law 85

2. Realists' Energy Law 86

C. Energy Law Under Internationalist Perspective 88

III. Developing Legal Regulation: Paths and Problems 90

A. Demand of Globalization: Multilateralism and Regionalism 90

B. Current Problems as Declination of Human Rights Goes on 92

Conclusive Discussion 93

INTRODUCTION

Several reviews have mentioned that in 2021, an energy strike or even a crisis is coming. The questions therefore arise: (1) if there is certainly a negative effect caused by an energy lack; (2) if said lack is from a functional failure of the energy market; (3) if that failure is from an energy law system; and (4) what should constitute a contemporary perception for analysis of global legal institutions and structures of energy law.

When people start a brief or comprehensive and intensive discussion of the energy law system, perhaps the first idea that occurs to participants is undoubtedly that of climate change developments, accompanied by mentions of the Paris Agreement, or even the "Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy" in the EU and "Clean Power Plan" in the US.[1] Still, these policies merely relate to "legal regulation of the energy market"—if this article translates such a phrase as "a collection of state behavior by public actors, under a certain ideological identity, containing fundamental and secondary forms of legal texts, principles, or papers with legal force, through legislation and compliance with the law, to conduct a systematic exploration of the functional logic of the energy market and utilize it for the healthy development and increase of collective human benefits." Yet, from the beginning, it is difficult: previous energy goals set by "GNG net-zero emissions" could hardly be achieved by countries all over the world,[2] and problems will be tougher when first sketching the energy market system and then valuing it with laws. The latter will play a key role in this article, especially regulation "in a paper"—an institutional structure of any political decision could be a wise choice for scholars to build up a model to evaluate. Fortunately, a comprehensive presentation of that model is lacking around the world.

It can be ascertained that the winter of 2021 is coming. These days, we can see critics posing their aggressive opinions almost everywhere:

In the UK, British truck drivers went on strike, bothering Prime Minister Boris Johnson's government for some time. Without their loyal assistance, oil transportation was interrupted to a great extent. As the strike continued, the regions of the British Isles became trapped by a petrol shortage. This was a rather fair result as feedback for conservatives' "Brexit" because the Continent did not burden British people's living demands anymore. However, it was unfair to the British people themselves.

Turning to the EU, gaps exist between the West and East, whether they are geographic, political, or economic, the developed and developing, the ex-socialist and long-lasting capitalist ones, and even monarchy and republic states. The market, once quite stable with great functional expectations, is now experiencing trouble. Each

[1] *See* David·L.Schwartz, The Energy Regulation And Market Review 7 (Law Business Research Ltd., 5d ed. 2016).
[2] *See* Su Fuyou, Hu Hao, Wang Lei, Guo Wei, Ma Mingwei & Zhai Yu, White Paper On Global Energy Transition And Zero-Carbon Development 3 (Huawei Ltd., 2021).

sovereignty, guaranteed by expert research on international law jurisprudence,[3] perseveres on its laws and principles to regulate energy commerce and the production–consumption chain. However, the EU itself shall be, or ought to be, according to the Maastricht Treaty, a "supranational sovereignty," to control its internal regions and nations. This situation causes a dilemma for European governance: if the union is more powerful, regional authority will be affected, while supposing that states are more powerful with collective plans and actions, especially from constructive sovereignty, that are out of the question in reality.

In North America, the USMCA is another representative political entity The current of transferring energy commodities is certainly dominated by the trading system there, and a sudden change caused by COVID-19 or even severe weather could easily beat the institutional design of the USMCA.

Unfortunately, there is still no evidence to prove that, to a great extent, the legal system could decide human energy activities—production, distribution, and consumption—under crises. Human beings demand "economic theory as applied to energy," especially when it focuses successfully on "supply and demand in the context of scarce natural resources."[4] Additionally, rewarding research on such a subject shall never exclude critiques on the institutional structure of energy law comparing various state practices, "noting that energy policy has generally been resistant to political change."[5] Moreover, what if legislation from various states conflicts with each other, thus blocking the fluent movement of material commodities, cash flow, or overseas business participants?

The points above are what this article mainly addresses through an overview of the institutional structure of laws and regulation under "governmental agencies," such as "commissions," "organizations," "ministries," or "authorities."[6] Illustrating why "institutional structure" should be analyzed, through the arrangement of legal institutions, each state's purpose and considerations in energy transactions and entitlement would be clear. Also, as neo-liberal institutionalism certainly composes a branch of the theories on international relations, reflections from other theories shall come into use. Scholars always worry about the lack of models and methodology; in this article regarding energy law, questions arising, such as what the institutions for energy regulation do, could do, and are expected to do, will come to a rewarding observation.

I. IN-DEPTH RESEARCH ON EXISTING OUTCOMES

This research also desires a definition of the concept of a "system." As Robert Leeper claims, a system is of unit or part in interaction with each other[7]; . to search for

[3] See Niu Song, The Construction and Transition of Modern International System, 22 JOURNAL OF SYSTEMS SCIENCE 72, 72 (2014).
[4] See Joseph P. Tomain & Richard D. Cudahy, Energy Law in a Nutshell 1 (2d ed. 2011).
[5] Id. at 2..
[6] See DAVID·L.SCHWARTZ, supra note 1, at 241.
[7] See Liu Wanwen & Zheng Dandan, On Some Problems of the International System, 19 PACIFIC JOURNAL 26, 26 (2011).

such “interaction”, this article requires individual and comparative case studies for reference.

A. Case Analysis: Energy Strike in North China and Chinese Legal Regulation on Energy

1. Power Restriction in Northeast China

On September 23, 2021, the State Grid Jilin Power Supply Company and the State Grid Tonghua Power Supply Company issued a notice. To ensure the safe and stable operation of the power grid, Jilin Province Power Grid took power restriction measures at 16:37 on the same day and implemented power restrictions in nine urban areas of the province. Power rationing was implemented in the northeast and in many other parts of the country.

The causes of power rationing in Northeast China include both external and internal causes. In terms of external factors, there is a power gap in China. Thermal power generation is still the main source of electricity, and it has been affected by the pandemic; domestic coal prices generally show an upward trend. On the other hand, there is still no marketisation at the consumer end of the power market. The government limits prices in the field of power consumption. When the coal price rises and the power generation cost is higher than the electricity price, the production enthusiasm of power production enterprises will be hit, and the supply will decline. In terms of internal causes, the National Development and Reform Commission stressed in its notice that it would take effective measures to ensure the completion of the double-control goal of annual energy consumption, especially the goal of reducing energy intensity. However, China’s carbon emission pressure is still large, and the horizontal and vertical comparisons are high. Therefore, for the corresponding “dual control of energy consumption” plan, it is logical to switch off and limit power in Northeast China.

2. Energy Law of China

In the energy field, China’s energy law is still in the stage of soliciting opinions. At present, there are four major laws: the Power Law of the People’s Republic of China (PRC), the Coal Law of the PRC, the Energy Conservation Law, and the Renewable Energy Law. In addition, there are more than 30 energy-related laws, such as the Law of PRC on Environmental Impact Assessment, the Law of PRC on Safety of Special Equipment, the Law of PRC on Work Safety, the Environmental Protection Law of PRC, the Law of PRC on the Prevention and Control of Solid Waste Pollution, and the Law of PRC on the Prevention and Control of Cleaner Production. There are also more than 30 administrative regulations promulgated by the State Council and more than 200 departmental rules, such as regulations on electric power supervision.

According to the purpose of the law and the type of energy, there are two classification methods. First, according to the purpose of the law, energy-related laws can be divided into four categories: basic energy law, separate energy law, energy-related laws, and other normative documents. Second, according to the type of energy, energy-related laws can be divided into renewable energy law, nonrenewable energy law, conventional energy law, and new energy law.

However, a thorough study of the legislation reveals the following problems in China's energy legislation.

The administrative attribute of energy law is too high, which means that the legislation is too utilitarian. This is not difficult to see because, under Chinese law, resources belong to the state, and energy is a vital link in controlling the lifeline of the national economy. In practice, to deal with various problems encountered in the energy field during the transition from planned economy to market economy, the state has successively formulated several laws to solve these specific problems. This leads to the following consequences.

First, there is an absence of basic energy law. To deal with problems in specific fields, China has formulated several laws. For example, China's energy structure has long been dominated by coal consumption, while the utilization rate of renewable resources is relatively low. To promote the rapid development of renewable energy, save energy, reduce emissions, and resist global warming, China formulated a renewable energy law in 2005. However, this state lacks a comprehensive and basic energy law that comprehensively reflects its energy strategy and overall policy orientation. It is difficult to effectively adjust the comprehensive, overall strategic issues, such as energy security, energy efficiency, energy environment, energy structure, and energy market. At the same time, it is also unable to coordinate the relationship and conflict of laws between different singular laws.

Second, the internal systematics and coordination of energy-related legislation are poor. First, there is no separate law on oil, natural gas, and nuclear energy, and there is no separate legislation in important areas related to the national economy. Second, the relationship between different levels, energy-aimed and non-energy laws is uncoordinated. Conflicts exist between different levels of energy laws. For example, the Coal Law refers to the Coal Administration Department of the State Council and the Coal Administration Department above the county level. However, in practice, the Coal Management Department has been abolished, so there is a regulatory vacuum at the legal level. Other energy laws also have a regulatory vacuum caused by institutional changes. Also, there is a regulatory vacuum between energy-related and non-energy laws. For example, the Mineral Resources Law, as a resource allocation law, specifies the access conditions for mining but does not provide for environmental protection. The Coal Law only provides the "four Simultaneities" system for environmental protection, ignoring the system design of environmental impact assessment, environmental supervision and inspection, etc. At the same time, there are no legal consequences related to environmental protection.[8] The ownership of the development and utilization rights of marine energy resources is also unclear. The use of marine energy resources is not included in the scope of marine use rights in the Sea Area Management and Use Law, and the use of tidal energy is not regulated in the Renewable Energy Law. Finally, there are both substantive and procedural parts of the separate law. For example, the production safety law stipulates not only the safety guarantee of production and business units, the rights and obligations of employees, and the division of responsibilities of regulatory agencies, but also the emergency rescue, investigation, and handling of production safety accidents. Substantive law and procedural law create

[8] See Chen Zhe & Jiang Guangchang, Research on Environmental Protection Legislation of China's Coal Mines, 19 SAFETY AND ENVIRONMENTAL ENGINEERING 1, 2 (2012).

a considerable degree of logical confusion. The reason why these phenomena exist can be attributed to the fact that the energy problem involves multiple government departments and multiple central enterprises [9]. Specifically, the phenomena of regulation capture and government decentralization are determinants of this phenomenon.

Third, there is a lack of emergency laws on energy reserves, such as national oil reserve regulations, which have not yet taken shape. In principle, the collection, storage, and rotation of government oil reserves should be carried out openly through the trading market. If there are no substantive legal norms in the field of market trading, the transaction cost will increase.

However, in sharp contrast to the high administrative attributes of energy law, there is no organ commanding energy affairs, and the functions of each organ are unclear. Although China's Energy Commission is in charge of energy administrative law enforcement and supervision, this department has encountered many constraints in practical work.10 Coal is the most important primary energy source in China. Taking the coal industry as an example, there is an interesting situation of "nine dragons supervising mining" in China, that is, the Development and Reform Commission, the Bureau of Land and Resources, the State Administration of Coal Mine Safety, the State-owned Assets Supervision and Administration Commission, the State Environmental Protection Administration, the Ministry of Commerce, the Ministry of the Environment, and the State Energy Administration jointly supervise the coal industry. The most important factor in the field of coal supervision is safety supervision. In the field of Chinese safety supervision, there is a dual supervision mode of "central + local" and "industry + administration," that is, the function of safety supervision is under the command of the State Administration of coal mine safety. At the local level, the Provincial Coal Mine Safety Supervision Bureau was established to accept the dual leadership of the National Coal Mine Safety Supervision Bureau and the provincial government. Also, provinces with heavy management tasks in the coal industry can set up the Provincial Coal Industry Bureau to perform the function of industry management. It is worth mentioning that the Provincial Coal Industry Bureau has put up a brand under the Provincial Coal Mine Safety Supervision Bureau; that is, the governance mode of "one team, two brands" is implemented. It can be seen that industry supervision and administrative supervision personnel are mixed, and the separation of powers is unclear. The unclear functions of departments are also deeply reflected in other energy fields: the State Power Regulatory Commission is in charge of power supervision, but other departments are also decentralizing the functions of power supervision. For example, in the field of electricity, the National Development and Reform Commission handles long-term power planning, power pricing, power conservation and energy efficiency, and examination and approval of power investment. The Ministry of Environmental Protection is responsible for assessing the environmental impact of power planning and stipulating the emission standards of power enterprises; the State-owned Assets Supervision and Administration Commission appoints members of the board of supervisors of state-owned power enterprises and evaluates the performance of the

[9] See Xiao Guoxing, Confusion and Way Out of the System Design of Energy Law, LAW SCIENCE, Aug. 2012, at 7.

[10] See Xiao Guoxing, Energy Law and the Structure of China's Energy Legal System, ACADEMIC JOURNAL OF ZHONGZHOU, June 2012, at 80.

persons in charge.[11] In the field of oil and gas, there is also no professional regulatory body, and all departments supervise the oil and gas business in a decentralized manner. For example, when the industry enters the stage, the National Development and Reform Commission approves industry access and project investment. In mining and exploration, the land and resources department handles approving the acquisition procedures of land resources, the State Oceanic Administration oversees the approval of the acquisition of marine resources, and the Safety Supervision Department cares for the approval of safe mining. The National Development and Reform Commission shall be responsible for the price supervision of the sales link, and the Ministry of Commerce shall be responsible for the operation supervision of the oil wholesale market and the oil import and export operation supervision.

In addition, the Energy Conservation Law sets energy conservation as China's basic national policy, and the Environmental Resources Protection Law focuses on environmental protection at the energy production and utilization stage. However, the current legislative orientation overemphasizes environmental protection and resource conservation while ignoring the production and development of resources. Paying too much attention to environmental protection will lead to the result of neglecting the goal of developing resources.

B. Comparative Research: Energy Law of US, EU, and Other Representative Regions

There are two major changes in the field of global energy legislation and regulation. The first is that the demand for oil and other fossil fuels in industrialized countries has stopped growing, and the future growth of energy demand mainly comes from emerging market countries, especially China and India. The second change is that more attention is paid to the impact of energy use on the environment, especially carbon dioxide emissions.[12] Energy law of the US, EU, and Australia will be elaborated and discussed in the following section.

1. Energy Law of the US

Achieving energy independence has always been the primary goal of US energy legislation and policy. The US has achieved energy independence, the energy consumption structure has been continuously optimized, and carbon dioxide emissions have entered a downward channel. Energy can be divided into three categories: nuclear power was the cornerstone of the Reagan administration's energy policy; however, it suffered a great setback during 1982. At the same time, alternative energy sources received boosts. Conventional energy sources fall into the third category.[13] At present, oil and natural gas rank first and second in US energy consumption, and renewable energy, including hydropower, geothermal energy, solar energy, wind energy, and biofuels, ranks third. After President Biden takes office, the United States will return to

[11] See Tang Songling & Ren Yulong, Reform of Government Supervision System in Power Industry: Foreign Experience and China's Countermeasures, ENQUIRY INTO ECONOMIC ISSUES, Aug. 2008, at 163.
[12] See David G. Victor & Linda Yueh, The New Energy Order: Managing Insecurities in the Twenty-First Century, 89 FOREIGN AFFAIRS 61, 62 (2010).
[13] See Clifford A. Bob, Energy Law, 1983 ANN. SURV. AM. L. 621 (1983).

the Paris Agreement and address climate change as the starting point for US energy foreign policy.

The prominent feature of American energy law is market dominance. According to the provisions on land ownership in the common law of the US, most of the land and underground resources in the United States are private, except for the land and resources used by the federal government. Land ownership based on common law and ownership extended to private underground resources made the US energy market not dominated by the government from the beginning, but spontaneously participated and dominated by market subjects.

US energy legislation is divided into federal and state levels; thus, the complex system is complex. American energy legislation adopts the legislative model of "law and policy," which includes energy strategy, planning, and management and institutional legal norms. It can be further divided into three categories: comprehensive law, special law, and supporting law.

Comprehensive law includes the National Energy Law of 1978, the Energy Policy Law of 1992, and the Energy Policy Law of 2005[14]. Specifically, the National Energy Law of 1978 includes five parts: the National Energy Conservation Policy Law, the Natural Gas Policy Law, the Power Plant and Industrial Fuel Usage Law, the Public Utilities Regulatory Policy Law, and the Energy Tax Law of 1978, which are mainly aimed at conventional energy. The Energy Policy Law of 1992 promotes the development and use of renewable energy. The law opens the transmission network to non-public utility power generators, encourages new investors to enter the power market, encourages regulatory agencies to integrate cross-state resources, and provides financial and technical support for wind energy utilities. The Energy Policy Law of 2005 acts on traditional fossil energy and nuclear energy industries. The law expands the scope of applying of tax relief policies for renewable energy production. In addition to wind energy and bio-energy, geothermal energy, small-scale generator sets, landfill gas, and waste combustion facilities are also included in the scope of application. Government agencies, cooperative power enterprises, and other organizations are authorized to issue "clean renewable energy bonds" to finance the purchase of renewable energy facilities. Renewable fuel standards were formulated so that at least 7.5% of US government power consumption should come from renewable energy sources by 2013, and the special law includes the Clean Air Law, Clean Water Law, Solar, Wind and Geometric Power Production Incentives Law, and others. The supporting law includes the Energy Tax Incentives Law of 2003 and the Investment Law of 2009. The former law stipulates an energy tax and gives new energy tax incentives, while the latter expands the utilization of smart grid technology by investment and encouragement of new energy investment.

2. Energy Law of the EU

The EU energy policy is mainly composed of white paper and green paper on energy issues, which is the legal framework of national energy laws. Specifically, in 1995, the European executive committee issued the white paper for a community

[14] See Hou Jiaru, American Renewable Energy Legislation and Its Enlightenment, 42 JOURNAL OF ZHENGZHOU UNIVERSITY 79, 79-82 (2009).

strategy and action plan on renewable sources of energy, formulating the general policy on energy. And then it issued a sustainable, competitive and secure European energy strategy in its green paper in 2006, which stipulated a foreign consistent energy strategy, emphasizing the unity of EU countries in energy legislation. The EU energy law includes the primary law and the secondary law. The most important laws of the former include the Treaty of the European Coal and Steel Community and the Treaty of Amsterdam, which regulate the fields of coal, steel and power industries, respectively. The latter includes various regulations, directives, decisions and recommendations[15].

Forming a fully competitive market is an important goal orientation of the EU energy legislation and policy. According to the Gas Directive and the Electricity Directive, all parties undertake the obligation of non discrimination and fairness. According to the green paper issued in 2006, the fair competition mechanism should be unified to form a genuinely competitive power and natural gas market. According to the price transparency directive formulated by the Council of the European Community in 1990, transparent prices enable consumers to measure whether prices meet the conditions of fair competition. There are many examples which prove this. For example, under the EU energy law, enterprises are not allowed to control both the "downstream" natural gas pipeline system and the "upstream" natural gas production link to prevent leverage. The third party access prohibition of oil and gas pipelines shall be strictly controlled, and only special reasons such as technical reasons, emergency conditions and performance of public service obligations can be applied. Under the joint action of the EU competition law and antitrust law, price discrimination is prohibited in articles 101 and 102 of the Lisbon Treaty. Measures have been taken to prohibit different selling prices for the same commodity or service to several buyers without justifiable reasons, and Gazprom has been investigated for suspected price discrimination.

Energy supply under emergency conditions is also an essential consideration in the EU energy legislation and policies. According to the green paper published in 2006, the European Energy Supply Observatory should be established to monitor the primary energy supply modes of the EU, collect and analyze energy related information, and issue the Strategic EU Energy Review to formulate legal plans under energy emergencies.

3. Energy Law of Australia

Australia's energy law and policy adopted a nationalism position before 1983, emphasizing government intervention to realize national interests. From 1983 to the end of the 20th century, the energy industry gradually moved towards liberalization. The complete legal and policy system has promoted the development of the Australian energy industry[16]. Australian energy laws and policies can be divided into three levels: federal, state and local,which is overall coordinated by the Council of Australian government. Energy laws and policies are scattered throughout the Renewable Energy

[15] See Yang Zewei, EU Energy Law and Policy and Its Enlightenment to China, LAW SCIENCE, Dec. 2007, at 135-140.
[16] See Li Hua, New energy development in Australia: Law, policy and Its Enlightenment, THEORY MONTHLY, Dec. 2010, at 147-148.

(electricity) Act, Energy Efficiency Opportunities Act and National Framework for Energy Efficiency.

Australian energy law has two highlights:

First, in terms of renewable energy law, the Mandatory Renewable Energy Target is the basic law, and the Energy White Paper evaluates and reviews the effect of the operation of the law. In addition, fiscal and tax incentives and subsidies, energy innovation mechanism and renewable energy certificate system have all promoted the development of new energy development.

Second, in terms of energy security law, firstly, the energy security management system is complete. The Department of Resources, Energy and Tourism is in charge of overall legal work.Energy regulator, energy market commission established energy and security management systems to ensure energy production, operation and consumption.Second, the Liquid Fuel Emergency Act was enacted to ensure emergency energy supply. In 2004, the energy security working group was founded to fulfill the continuous responsibilities of the national liquid fuel emergency response plan and develop emergency response agreement. The National Oil Supplies Emergency committee is a national working group composed of representatives from state and local governments and industries. The National Oil Supplies Emergency committee formulates feasible and essential matters for the implementation of the liquid fuel emergency law. In 2021, the National Liquid Fuel Emergency Response Plan has been formulated. In the field of natural gas, in 2005, the national gas emergency response advisory Committee was established to integrate the representatives of the government, natural gas industry departments and users to provide suggestions to the council of ministers of energy on major natural gas supply shortages under multilateral jurisdiction.

II. "RECHTSDOGMATIK" FOR NATIONAL LEGISLATIVE MODELS: BENTHAMIST, CONSTRUCTIVE, REALISTIC(MIMETIC) AND INTERNATIONALIST

In recent years, when considering certain issues or to-be-made-certain issues in the perspective of the global market and participating market economy, there will be unavoidable heated debate by leading minds regarding research on ideology. What is important is that talking about the prevailing upper-structure of a single nation is so complicated, let alone that for a rather unpredictable and changeable international relationship. As that form of research is aimed at upper-structure between nations, for instance, the mentioned and discussed legal presence in Comparative Research(Part III) above, the feedback shall be much more rewarding: Through different vehicles of presence to the public, or reflection from the history, people could, or the philosophers, politicians and respected scholars could, prima facie, conclude the law-makers' methodology into the following several sorts: Benthamist, Constructivist, Realistic(Mimetic) and Internationalist.

This way of conclusion with deduction is by the way titled "Rechtsdogmatik" (in German) or "Law Doctrine Study"(in English), and earnestly may it help clarify background and future such a way owns. It could never be false that each law text has its "object and purpose"(a usage could be seen from Para 1, Article 31 of Vienna Convention on Law of the Treaties), and this is in accord with ideas in depth of a nation.

Ideas in this way decide energy laws. The four sorts of ideas are so representative that, nearly none of those mentioned types or models of energy law in the preceding parts will escape their reflection. So, it's wise to take a glimpse of them.

A. Energy Law Under Benthamist Perspective

The sort of law under Benthamism, or Benthamist law tendency aims to fix the law itself to a certain object(or purpose), for example, the establishment of the Constitution, on one hand, is just for the settlement of the government. Generally speaking, Benthamism advocates the value that any law should be born to accumulate people's feeling and experience of happiness or happiness itself.[17] For that pure wish legislation converts bloody, cruel rules into a touching expression of human wisdom and legacies of such a variety of interpretation and application of wisdom. In other words, it's rather a reflection of people's subjective minds, which in "jurischolars"' eyes they are desires from hope for a better and much better human social community. In this way of understanding objects of laws and principles, they are substantially "of no values" but "for the ultimate value"-terminal progression of the status of existence of we humans. Critiques focus on this core character of Benthamist Legislation. However, ways to achieve the so-called "ultimate value" are far from enough. Looking through currently existing(and rapidly developing) energy law texts, wide-scope observers convince themselves of the fact that, every text seemingly sticks to that value, but when it comes to the question how it sticks no two cases present the same answer.

Take EU regulations as a factual example, when in year 2003 the Regulation on Access to Electric Power Networks was put into effect(and it certainly suffered four main "troublemakers"-each territorial local authorities' mind of nationalization, the 2008 Global Financial Crisis, the 2016 De-globalization phenomenon and the sudden 2020 Covid-19 Event), all law makers(at least a majority of such a community-in congresses and commissions of the far too complicated EU political structure) hoped it shall assist in boosting the cross-border trade activities and the gross fruit of it, and this could give a birth to a better situation of law application and commerce fluency for Europeans' collectively benefit. This perspective was so prevailing in that period of time, especially evaluated through the professional identification of "integration" or "integrity"[18] practices proved by temporary success of the European Community. Positive thoughts were greatly produced, but in reality it functioned "not so well" and resulted in some negative reviews: A voice presented that the concept might trap itself by the lack of "appropriate theoretical flame", and a more satisfying analyzing method was to dissolve it into part of economies, politics and what for law for a rather detailed and accurate measure[19].

Just listing the regulation as a positive result shall no scholars deny its negative influences. The first of them is that, no matter how hard have the legislation workers

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[17] See Hu Yuhong, Studies on the Legal Thought of Jeremy Bentham, TRIBUNE OF POLITICAL SCIENCE AND LAW, May 2005, at 6.
[18] See Ding Zhigang, International System Interedependency Intergration International Order: Integration of Contemporary Western Theories of International Relations, WORLD ECONOMY AND POLITICS, July 1997, at 7.
[19] Id. 6. .

have attempted, the directions established by the regulation would to some extent betray the goal that cross-border trade could constructively benefit international exchange and consumption energy sources, for the reasons that in this way the trade would be: (1) much supervised by the most gathered varieties of European states energy laws for regulation, (2) subject to the order of the central power of EU community, and (3) resistant to the systematic risks caused by any accidents or unpredictable events or sudden political or diplomatic affairs which forms a hit to recycling of business activities. To someone's great disappointment, the positive proofs above were accompanied by negative reflections below: (1) varied standards of such supervision, for example, different understanding or even misunderstanding of the put out "Transparency of Consumer Energy Prices"[20] might arouse troubles and worries among country entities; (2) pushing a regional order to moderate or regulate the capital market and its natural, spontaneous functional mechanism, would receive conflicting requests from the government, the people and the capital as the hugest negative feedback, and (3) if such a detailed, decent or singular text with legal force under an identity of "Benthamism" to boom EU energy transactions (for profit) and distribution (for welfare) did well enough, there would be no organizations like "the High-Level Group on Energy, Environment and Competitiveness", where, as some comments shew, law had not reached its object of "helping people achieve greatest or ultimate happiness", or a single of such achievement.

That dilemma is not individual in normal European trade but is instead an acquirement of rights. Chinese scholars paid more attention to the latter part of the subject in the past a few years (less than 40 years after the Reform and Open-door Policy was carried on), and it substantially was based on instruction from Bentham's critiques, as the general goal of the central government of PRC (the state) and central commission of CPC (the party) had chosen "public interest", and it undoubtedly consisted a progression of Benthamist Jurisprudence at all. So what is Benthamist law aiming at? One representative's consideration of the "real Benthamist law" shall be what was presented above: public values and principles for public values.

However, there are still other considerations. Among these considerations a typical one is the law of the nature, which comes from Roman imperial scholars that thought of continuously developing customs could be derived from the beginning of human society, and the law for happiness and progression of human beings is not by the side of "ought to be", but by that of "is" (from David Hume)[21]. And another thought is that only through legislation could Benthamist laws be accepted(or he claimed that "education as well as legislation could lead people to happiness"), but in judicial rounds or administrative realms, things may not move so smoothly as Benthamists imagine. Perhaps, energy law has its own characteristics belonging to features from commercial activities. Therefore, seeing through legislative science will probably not result in applicable observations to behavior under the law.

And that means the analysis shall go through other comments on energy law.

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[20] See Yang Zewei, Energy Law and Policy of the European Union and its enlightenment to China, LAW SCIENCE, Feb. 2007, at 138.

[21] *See* Shi Yuankang, From Chinese Culture To Modernity: Paradigm Shift? 330 (Shanghai: Sanlian Bookstore, 2000).

B. Energy Law Under Constructive And Realist Perspectives

1. Constructivists' Energy Law

When talking about energy law for something beside "people's interest""happiness" or "collective profits", and see it through the structure of power distribution theories, to integrate it into part of legislative workloads. There are perspectives contrary to each other, which in general build up two faces of one established theory of understanding energy law texts: They are previously designed to be "constructive" or "realist" ones. This division mode is mainly from double sources of mind flows: (1) three main characters of contemporary history of legal thought: natural law, social law and law doctrine jurisprudence which has been mentioned in the beginning of this part, and (2) the most widely recognized theory of international relationship, which contains neorealism, neoliberalism (containing "neoliberalism") and the later developing constructivism[22]. When it comes to the first claim, that three main characters of jurisprudence and legal philosophy consist sole sources of such a perspective of constructivism or realism, There exist two major relationships in which perspective and its source compose a pair of reflections of each other, one, where constructivism is for the natural law as there an "ought-to-be" common value is constructed, or supposed to be the prior precondition of deductions, and two, realism is for social law as only what exists in reality could be useful for such deductions in pursuit of an answer for the question: How will the energy law suit people's need (if something like "happiness" is too wide to be defined)? However, the second claim bases itself more on effective measurement of the factors: system, unit and interaction, and researches are applying these factors to judge what type shall a theory belongs to.

"Constructivists divide their theories into two parties: one for conventional and another is called critical"[23]. In this part, only the former will be discussed cautiously, for (1) it exactly meets people's customary identification of "construction"-"build up" or the course or efforts of it, and (2) critical thoughts are not welcome by scholars, as in these thoughts even the worst scholars shall see the fatal lack of necessary academic basis of theoretical critiques: theories are easy to be destroyed or fall collapsed, but to build or rebuild it in a rather rapidly changing world is far more demanding- That's what critical authors care little about. Returning to the concept "constructivism" itself, scholars have concluded two major factors of its utility: actors and their identities. The former is the subject, and the latter shall "regulate" or "instruct" their behaviors, especially choices-often it is based on "intersubjective social context", and values like "state interest" or "public interest"[24] are out of exchange of minds from actors. This part engages a plenty of classic theories. From Grotius, Western Europeans have been tending to look for a higher collective convention over state regulations (just like what the UN Chapter is aimed at) - an ideal form of it is "law from the nature"[25], another is human law-under the circumstance that energy supply is trapped by each trade party's distribution regulation, like complex and continually changing tariff imposition or

[22] See Chen Yugang & Chen Zhimin, Constructivism: After Neorealism and Neolibral Institutionalism, WORLD ECONOMY AND POLITICS, 1998, at 28.
[23] See Wang Yizhou, Western International Politics: History And Theories 182-227 (Shanghai: Shanghai People's Press, 1998).
[24] See Clifford A. Bob, Energy Law, ANN. SURV. AM. L., 1983, at 629.
[25] See Zhou Ziya & Jiang Enci, Grotius's contribution to International Law_Written for 400th anniversary of Grotius's birth, LAW SCIENCE, June 1983, at 43.

import permission procedures, the poor and even bourgeoisie or "middle class" are facing sudden shortage of coal or gas in despair. Just unfair or irrational (maybe it's designed by the authorities to be "rational") legal regulation on energy market could be fatal, and this finally leads to humanitarian crises. Later than that of Grotius, Immanuel Kant has raised "eternal peace"[26] for people as the central point of his constructivist theories for the article. Before World War I, constructivists were busy at precautions for the war, but not for "benefits". Finally, after economic crisis in the 1970s, when world market (crtainly including energy market) was being formed, critiques turned to economic from political perspectives and came up with theories as "international civil shall make efforts to reduce or mediate sufferings"[27] and "there should be principles regulating behaviors at a minimum standard"[28] for the human society to guard every individual well.

2. Realists' Energy Law

However, the abstract and obscure ideas from constructivist will not be accepted by realist. Realism may be the most powerful theory on international relationship and state practice; it greatly shapes the energy market since 1980s, or maybe earlier than that time. People love to watch the world and its developing tendency through a recognition of power (should be "state power") and force (perhaps armed), and it meets a minimal identity of human evolution: Darwinism. This is not the beginning; Darwinism is just an end of "the beginning" to an extent; "the beginning" is when Nicole Machiavelli raised the idea of "reason of state"[29]. Each entity gathered as a state would apply its reason for struggle of profits, and other factors or variables will then be secondary-the international system must contain nations which are respectively "powerful" or "powerless", and in reality, the former absolutely "exploit" the latter, and spontaneously forming the shape of an "Empire". It's so welcome in trade, because there always exist someone winning and others losing. Currency and cash flow under supervision of WB or IMF went from this country to another, or maybe investors from their home state, and those who last stand win the most Researchers, especially those on branch of history , are in fervor of this theory, for it authentically interprets the period of expansion of imperialism and exploration with exploitation of the wide range of regions from European Continent to Asia, Africa and America (under Monroe's instructions). The world is not separated, but it's power imbalance that terminate the separation. And what about balance? Balance could be broken, as what the imperialists had done in 1914 gave us the best case proof; it's extremely hard to be rebuilt, and this really means something. The market we are discussing should by all means be an international, multilateral one, not a domestic existence or a part of it in a certain region. So who shape the market, with what ways, could be found under a perspective of realist legal philosophy and economic politics. Thus, nowadays, the most expressive feature of realism is "mimetic" legislation, which most probably appear in developing countries when making certain laws on regulation of energy market as a whole or part of it, for

[26] See Wang Guiqin, Review on Kant's Philosophy of International Law, LEGAL FORUM, Mar. 2007, at 134.
[27] Richard Shapcott, The Critical Theory, in THE OXFORD HANDBOOK OF INTERNATIONAL RELATIONSHIPS 371 (Christian Reus-Schmitt Nanjing: Yilin Press.1d ed., 2019).
[28] Molly Cochran, Ethics of the English School, in THE OXFORD HANDBOOK OF INTERNATIONAL RELATIONSHIPS 315 (Christian Reus-Schmitt Nanjing: Yilin Press, 1d ed. 2019).
[29] See Zhou Baowei, "Reason of State", or "Ration of State"?_Perspective in Triple Context, DU SHU, Apr. 2010, at 36.

example, “Safe Production Law”. In China, this law is publicized (born) in 2002, but in 1930s there was “Gas Laws” in the US. Yet here “secondary” (in the procedure of energy commercial activities) and primary (under category of department) laws should be distinguished, early in 1974 “through the new deal era”[30], there came the “Transportation Security Laws” with relevance to liabilities in security guarantee in part of production of oil, coal and gasoline, and in such a situation has Chinese law makers imitated rules set up in US law for identical regulations. Thus, the institutional structure, presented as (1) orders and logic of the articles made up, and (2) division of regulation under content of laws, for example, index, chapters, sections e.t.c. are “transplanted” into another actor state. It’s a fast step towards regulation, but will a single, individual state owns the fit or appropriate social environment to accept this transplantation? Will that be well “utilitarian” in folks, not in academic debates?

And there’s the comment for that two theories.

Energy laws share the facet of constructivism, especially in China, as people view publicized texts of “Renewable Energy Law” “Electricity Law” or even the earliest “Coal Laws”; they shall spontaneously be aware that: these contents are attempting to set up altogether awareness of energy law framework and specific departments of the state- this is what we call “identity”. Also, such an “identity” could be stretched to other entities overseas: transnational corporations dealing with coal transactions have to focus on newly-established rules from new-born departments of such a text system, and departments themselves help construct “pool of rules” to avoid capitulation of supervision or other moral risks- as some scholars shows, sometimes ways to deal with such risks will even escape law texts and, by the way, through adjustment clauses in specific contracts[31]. In this way, that “social practices” are rather usually achieved, to gather a warrant for legislation and also, a guarantee for ideal supposition carried out through gathered “identities”. Or, could this thought be deployed that: only after the text or texts serving energy market appeared (for example, EPCA (1975, c.r. U.S.) and EISA (2007, c.r. U.S.)), consideration or reconsideration of legal relationship energy trade and transferring would be rooted to the state, the people and the business participants. In brief, constructing laws is for making up people’s identities, and people’s identities are for the potency of the institutional upper-structure. Nevertheless, realists may “strike back” just from that point of logic links: upper-structure and its effect on reality. When regulation is considered “restraint” or “second adjustment” (the first is by the market itself), this theory applies better. Before all should energy commerce be valuable or worthwhile after the first industrial revolution could they be regarded as “properties”, and when there are “properties” there is trade, and problems in trade make people advocate legislation, for example, “institutions that ascertain rights of energy serve the cornerstone of energy property transactions”[32](and that also applies to Market access).

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[30] See Joseph P. Tomain & Richard D. Cudahy, Energy Law in a Nutshell 631 (2d ed. 2011).

[31] See S.Scott Gaille, Reducing Conflict and Risk: Why Parties Benefit From Using Enumerated Adjustment Clauses In Energy Construction and Services Agreements, 42 ENERGY LAW JOURNAL 123, 123(2021).

[32] Zheng Jianing, Legal System of Energy Property Transaction in China, COMMERCIAL TIMES, 20 May 2014, at 122.

For another perception or methodology to have a clearer command of this thought, may it please the readers that this article conclude the counterpart character of that two minds: the constructivist law would love to establish or create a new rule and deduce from it to send the upcoming criteria down, where people should only act as receivers of an order; the realist law begins with existing problems, and from the problems relevant laws are induced and provoked, if necessary. The former is abstract, while the latter is concrete; the former is from law to life, and the latter is from life to law; the former is from "ought to be" to "be", yet the latter is from "be" to "ought to be"- they are substantially dialectical. Utility of such a dialectic helps understanding recent energy law systems: for what people want isn't equal to what system tends. On the contrary, they may to some extent "interact", for example, be or has to be affected by "others'".

C. Energy Law Under Internationalist Perspective

And the last party for series of theories is Internationalist. When this concept is discussed, Marxist view is indispensable. Nobody's unchallengeable rights should be deprived, such as right of living, habitation and dwelling on peace, and that's not only for bourgeoisie, but also for proletarians. Not only proletarians' domestic or civil rights should be well preserved, but also they shall be cared about with international cooperation. Therefore could it be concluded that internationalists' energy law is based on five types of interpretation:

(1) attaching importance to the reality that, the world has formed a complete, trans-regional, and multi-cultural energy market over geographical traditions and customs-all members participating in this market shall recognize the basis of interactions all over the world-they are "fragments" which form a global horizon;

(2) construction of rules (multilateral conventions, like VCLT and the United Nations Conventions on the Law of the Sea, UNCLOS) , principles (treaties berween sides and parties) and collective instructions (Proposal of "Human Community with a Shared Future"[33]) has done basic work of system modification- nowadays a political feature under "Global-constitutionism" is built up, and these outcomes boost constructivists' confidence for further stretch of "sum total of concept form nations"[34] to outspread ideal "identities" throughout the world: could the fragments get together to shape a new energy market (for example, standards could be remade or modified to achieve the common ground), thus unite human society;

(3) in form of law content as series of climate conventions show, (whether it is named as the Paris Agreement or the Kyoto Protocol), humans ,when facing a terrifying future of "must limiting the increase of global temperature below 2 degree centigrade in the 21st century"[35], Bentham's idea returns to the proud parliaments and congresses-

[33] See Zheng Guangyong, From Westphalia System to the Necessity of Building a Community of Shared Future for Mankind, 18 JOURNAL OF BEIJING UNION UNIVERSITY(HUMANITIES AND SOCIAL SCIENCES) 29,29 (2020).
[34] Li Shaojun, Grand Theory of International Relations and Comprehensive Explanatory Model, WORLD ECONOMY AND POLITICS, Feb. 2005, at 22.
[35] Climate Change 2021: The Physical Science Basis, Intergovernmental Panel On Climate Change [IPCC] (2021).

now we need a rapid and effective transition[36] of energy components, at any cost, yet it's just an ideal situation, or suggestion only.Under some certain subjects, idealism leads the majority of human beings to a better future; at least, energy law cannot ignore its object to bring "industrial blood" to regions and areas indeed wherever in need;

(4) returning to beginning proposal of this article, researches on institutions are credit to neo-liberal institutionists' arguments, and this hypothesis will of certainty introduce interest measurement- it will be about each step of circulation of energy commerce, for example, transportation (regulation in detail) and overspread trade rules settlement (WTO rules and relevant TRIPS standards). Now that textbooks or teaching scholars would like to redivide regulation on energy transportation in direction of "Incoterms"- from the factory will the actual, legal relationship between buyers and sellers fall into force (calculated or captured by EXW standard ("Ex works")), considering whether a carriage begins with boarding on a ship or vessel (captured by FOB standard ("Free On Board")) or being given to carriers (captured by FCA standard ("Free Carrier")), and it will terminate through substantial, complete delivery to a certain destination (captured by DDP standard("Delivered Duty Paid") mostly)- That means, every single action of an actor is accompanied (and in the meantime, supervised) by a certain institution made up, and people shall have confidence on domestic and then transnational institutional structure for they have been effectively elaborated after being carried out, for negotiations and compromises are unavoidable. It's construction upon constructions, with excellency over stability,

(5) and that provokes Marxists' enthusiasm, for liberal institutions may not function as well as what people have long been imagined. In Marxists' minds and thoughts, undoubtedly institutions as upper-structure should be "rooted in" material living experiences. This identity is so sensitive and attractive for energy circulation is really what must be observed through "material" perceptions- If there exists a committee for energy international trade work, it will just be designed to deal with such collective affairs, and its power of management will not overwhelm that power of state machines and capitalist's financial forces behind them. Energy is in charge and under control of Capitals; laws will fall to serfdom to transnational capital forms and entities, and from one step to another it will of no doubt pass through barrier of taxes, tariffs, fees or fares from government organizations. However, energy is born with its character of welfare. "Coal still plays a dominant role in meeting energy supply for Poland, India, Turkey and China"[37], and distribution of such "welfare" remains far from reasonable. In the past 100 years, capitalists, whether they are from the bank or from the industry, came together for partition of global welfare as well as alienation of proletarians. Credit to this course, barriers from unchallengeable difference of environments and traditions of each state are finally overcome by reunite of the exploited global proletarians, and the market is forced to unite itself, with the pushing force of capital activities and actor interactions.

Therefore, energy law in perspective of internationalism is for the united world economy and people's interest, but by separate actions from greedy market controllers.

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[36] Id. 2 at 34 (Huawei Ltd., 2021) .

[37] Edited by David·L.Schwartz, The Energy Regulation And Market Review 8 (Law Business Research Ltd., 2016).

III. DEVELOPING LEGAL REGULATION: PATHS AND PROBLEMS

A. Demand of Globalization: Multilateralism and Regionalism

Could we continue from a brief introduction of perspectives for observation of energy law system and detailed instittions to the end of meaningful inspiration from internationalists: transnational energy capitals, international system of legal regulation throughout trade (as a dynamic factor) and market (as a static factor), and trend of multilateral interactions- sounds like a "Frankenstein" of all mentioned theories and perspectives at all. But this is what this article really would love to present. Existing energy law system would not easily cope with questions on its theoretical sources, or its future tendency, either. Therefore, a problem is to be answered then: what about the future tendency of this system established and then "edited" (modified) for several times (by several entities)?

Immanuel Wallerstein claimed the concept of "World System"[38], this concept and its subsidiary theory is on the contrary to those thoughts from international relationships, and he points out the influence of productivity and division of work round the global links of economy- in this way, "western capitalism expands and penetrates towards world outside Europe"[39], and thus establish a complete system of Western Capitalism. That implies actually the two theories this article applied to analyze "past and future" of legal regulation on energy market, share way to argue in contrast. Similarly, that theory from Bentham, Wendt and Nye deduce from a relationship framework of energy trade in ideas, but Wallerstein with other scholars end such a deduction at a framework coming soon. Thereby, starting from law contents to an ought-to-be structure and to a tendency of alteration, the logical linkages are soon to be completed.

Recently, in years before 2016, this tendency is pushed by neo-liberalists as a trend of "globalization" side of its partner concept, "globalism". Reforms on energy law have been proceeding for almost 40 years since SPR in the US- after year 1975 US regulation on energy market tend from law of establishment to law for policies, and policies are loyal servants to reform tendency whether it is pushed by administrative or legislative force, or just an advocate made by transnational organizations-existence of legal compliance decides quality of legislation. When systems are faced with globalization, as mentioned in parts above, integration or modification regulation criteria would be an access-over 6 shifting periods of US legislation have told tales of romantic "globalism", and it's fortunate for American people to see US standards, for instance, "Fuel Economy Standard" (set by EISA) , travel throughout the world just for realists have ensured American force of legislation "internationalization", then making US a suitable example of "Hegemony Governance"[40] ; another way is to compete in the "global market" and wait for the consequences; then regulation would be based on reports- for example, China recently carried out a progress report for sustainable energy

[38] See Liu Wanwen, Zheng Dandan, On Some Problems of the International System, 19 PACIFIC JOURNAL 26, 27 (2011).
[39] Wang Junsheng &Yang Yongbin, Analysis on the Basic Connotation and Evolution Mechanism of Modern International System-Also Talk about the Enlightenment to China, DIPLOMATIC REVIEW, Jan. 2010, at 128.
[40] See Jian Junbo, Analysis of the Current International System, ACADEMIC EXPLORATION, May 2008, at 37.

transition, and it directly mentioned part of "participating in 'global energy governance'"[41], or evaluation of such a consequence. State must "be subject to" global standpoint.

However, in 2016 the "Brexit" and Donald Trump's inauguration in a sudden brought about "anti-globalization" (or "de-globalization")- a path through globalization was harshly challenged. Meanwhile, it probably offered a chance. For this article, it's highly like a "return" to"Neo-regionalism", where the model indicates that larger states using rules and principles for expansion of its power projection over a realm of region restricted to a continent[42], or a smaller area for transnational activities. Maybe this path is more suitable for current energy trade: by Feb 1st 2016, valid regional trade agreements had reached a sum number of 419. In Part III of this article EU energy institutions have been talked, and another active centre of regionalism (whether it's positive or negative-which means "protective" in Chinese authoritative expressions), is regional legal narratives occurring in East Asia. Would it be possible for energy market to be fixed or independently nourish such a structure in this region had been heated discussed: Professors began to claim that transition of energy institutions were inevitable, and its essence was transformation of energy capitals- only improvement of institutions could boost capital development[43], so the way to energy "revolution" or "evolution" in law was welcome. Thus, a surprising outcome is pushed out that regionalism may carry with better energy laws and more satisfactory market functions. That path is welcome by legal realists, for actual performance of legal activities decide the world's presence.

Energy booming mechanism could not be parted from domestic appeals and "market infrastructure", and if this concept could be expansively interpreted by researchers it would inevitably involve systems, like "market entry certification system" [44] with subsidiary provisions, such as licenses, preconditions, changing circumstance consideration and pre-entry environmentally protective supervisions. For this course could not avoided and may somehow sound "spontaneous", it naturally harbour the character to affect business activities with legislative transitions. A more aggressive way to achieve the same goal is to follow "Legal Formalism". It stood with the Roman Empire, was debated in the 20th century and was transited to "Neo-Legal Formalism"[45]- laws on energy should be comprehensible, and made something sure about the fluctuate market.

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[41] China's Progress Report On Implementation Of The 2030 Agenda For Sustainable Development 71 (2021).

[42] See Li Xiangyang, New Regionalism and Great Power Strategy, INTERNATIONAL ECONOMY REVIEW, Apr. 2003, at 5.

[43] See Xiao Guoxing, Legal Choice of Energy Capital Transformation, 476 LAW SCIENCE 70, 70(2021).

[44] See Zheng Jianing, On Legal Regulations of Energy Market Entry Certification System, 30 HEBEI LAW SCIENCE 121, 134(2012).

[45] See Lv Jiang, Modernization of Energy Governance: A 'New' Legal Formalism Perspective, 20 JOURNAL OF CHINA UNIVERSITY OF GEOSCIENCES (SOCIAL SCIENCES EDITION) 48, 49(2020).

B. Current Problems As Declination of Human Rights Goes on

No research is rewarding unless it is concerned with current, proceeding problems in reality on the globe. In energy realm, as what this article has pointed out in the beginning part, people' re somehow trapped with these problems at all:

(1) Energy security concerns for Powers (that shape the energy institutions from reasons of states). To avoid conflicts, or just for demand of cutting down costs and boosting the benefits of trade makers, institutions should be more intimately applied from the perspective of nations. Such a voice has covered "interactions" and, a prevailing division of ways to help states may refer to 3 classic types: aggressive, balanced aggression and defence, and diplomatic type of system interactions[46]. As types could not compromise with each other, and states based on various reasons for choice making shall push the tendency of "energy diplomatic" or "energy political" interactions to the unknown. That is somehow defined as security concerns for powers, where nations feel hard to have substantial command of interactions caring about energy.

(2) Demand of Environmentally Protective Policies (and appealed internal transition of energy market). This article could give rise to the problem of energy industrial transition for man kinds can no longer stand by watching the environment turning much worse. China has promised to reach peak of carbon dioxide emissions by 2030, and by 2060 achieve carbon neutrality. However problems appear to involve: A. gap between central government's decisions and province actions, sounding similar to US central authority as the federation and each states behavior, and B. each province's behavior may bridge cooperation and even unification of the state energy policies. What's more, factories and business partners, as the counterpart of legislators, should be granted time to react with effective measures, just for escaping from penalties. Actors are "kidnapped" by standards as "net zero CO2 emissions" and "climate neutrality"[47]- the market will at least fall into unnecessary price fluctuation.

(3) Lack of political stability (and imbalanced path inclination). Researchers found that bilateral relationship between two countries would directly affect stability of energy investment[48]. An example for that is, US and China politicians tried hard to maintain Obama's "Legacies" to proceed normal cooperation of energy exploitation, institution settlement and acceptable, respective legislation. However, state law is decided, if discussed under the thoughts given in subject (2) above, by national political choices, and mind flow which composes infrastructure of that nation when considering energy items, would be given the priority easily for it is concerned by subject (1), security and other fatal affairs. And where there is low stability of interactions there is high-standard protective institutions.

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[46] See Zhao Xiaohui & Xiao Bin, Energy Security Expectations, Status Quo Preferences ans the Energy Diplomacy Decision-Making of Great Powers, JOURNAL OF CONTEMPORARY ASIA-PACIFIC STUDIES, June 2011, at 110.

[47] See Lin Weibin & Wu Jiayi, Disussion on the Framework Roadmap of China's Energy Transformation Under the Goal of Carbon Neutrality, PRICE THEORY AND PRACTICE, Sep. 2021, at 9.

[48] See Li Kuangran & Li Zhengtu, Preliminary Study on the Legal Mechanism of China's Foreign Energy Investment Protection_An Analysis Based on the SCO Framework, JIANGHUAI TRIBUNE, May 2021, at 142.

(4) Potential but urgent pursuit of "Energy Justice" (which leads idea retrospection to Benthamism). Economists began the discussion from "Strict Egalitarianism"[49] for distribution of commodities. In the development of methodology of interpretation, it is given "opinio juris" in its concept transitions. The deductive method calls earnestly for social participation to form a force correcting defects of energy market in service, and this article advocates Marxist thoughts for justice achievement in human rights (if subject (1)(2)(3) have provided a penetration for declination of regulations, which means for "defects"). Now that shortage is continuously made out of the institutional structure, that barriers, supervisions, lack of treaties, internal conflicts on policies, loss of control from the central authority to regional powers, and people's need not yet met, constitute leak of institutions, and they are all reflective features from the market as the place where monetary factors are substituted with materials, to meet the basic economic rules and orders. Labors act as engines for productivity, and the way commodities are alienated shall be similarly injected to money, and even labors as human. States are just pretenders of capitals (in this period of time), and rules must be both regulatory media and civil guards- in perception of state ruled by law. Lives are deprived from the world, and all energy laws, whatever their structures are, shall be for lives themselves.

May it please governments of the nations all over the world that, energy shortage would but must not in this way constitutes a murder to inhabitants.

CONCLUSIVE DISCUSSION

An analysis on legal form of energy institutions with its structure may be faced with problems especially in reality and on law doctrine study. Usually, the former decides the latter in several ways: Benthamist or Utilitarians would see such a course in direction of pursuit of human happiness, and law is for meeting civilians' demand; Realists could research on comparative power and effects from state capability and influence on energy affairs, whether they are domestic or international; Constructivists in another direction penetrate international relationships and national governance, consider through institutional "make-up" could a structure be deduced from mind flows but actual demands, and values internally injected are honored in the first place; Internationalists, whether they are Neo-liberal institutional, or Marxist-Leninist, appeal to stand up to a level over the global political and economic tendency for searching for a resolution of transition of energy regulatory institutions. However, from the case study in China and comparative case analysis through EU, US and other representative region for legal outcomes under a perception of institutionalism or legal formalism could the article conclude that problems, like security concerns, environmental protection goals, stability leaks and the following humanitarian crises, would not be easily covered by the paths round globalization and regionalization (sub-globalization): for a better functioning energy institution model of structural legislation, shift to joint cooperation or critical mixture of thoughts of constituency for the subject, is required at once.

[49] See Wang Mingyuan & Sun Xueyan, "Energy Justice"and its Sinicization_An Analysis Based on Electric Power Legal System, ACADEMIC JOURNAL OF ZHONGZHOU, Jan. 2020, at 61.