Introduction

The growing global importance of China’s energy sector in the first years of the twenty-first century has seen a wave of publications seeking to throw light on the governance of this sector (Constantin 2007; Andrews-Speed 2004; Downs 2006; Meidan et al. 2009; Rosen et al. 2007). A number of these accounts have explicitly or implicitly drawn on the vocabulary and concepts of new institutional economics, an interdisciplinary field of the social sciences which provides a useful way to analyse institutions of governance.

This paper builds on these works by focusing explicitly on the institutions of governance and on the role of ideas in order to identify the main determinants of the nature of the current institutions of energy governance in China. The paper has four main sections. The first section examines a selection of historical and cultural factors, namely behavioural beliefs, internalised norms, and mental models and paradigms. The following section analyses aspects of the institutional environment, focusing on the formal institutions of the state and the legal system. The final two sections examine what has driven energy up the political agenda in China and the role of new ideas and slogans in China’s energy sector.

Historical and cultural factors

2.1 Behavioural beliefs, internalised norms and governance

China’s culture is deeply influenced by its origins as an hydraulic agrarian regime. Such regimes tended to be characterised by a high degree of central control and a lack of tolerance of alternative centres of power. Indeed, unlike in post-feudal Europe, stable and long-lived alternative centres of power such as the landed nobility, the church and the city merchant guilds did not exist in Imperial China. On the one hand, the central government exerted considerable control over those resources and behaviours which were critical to its retaining power. On the other hand, such was the size of its realm that the state was willing and indeed obliged to leave many aspects of family and village life outside its purview (Wittfogel 1952, mainly 101–136).

Critical to the longevity of China’s imperial history was the role of ideology in building and sustaining a moral order, and the consequent preference for conformity and acceptance of a highly hierarchical society (Pye 1992, 12–16, 238–240). In the absence of alternative centres of power or of structures of civil society, the family became the critical unit of society, supplemented by wider networks of personal relations, known in Chinese as guanxi (Jenner 1992, 103–128).
The implications of these general features of China’s culture on the systems of governance and on individual behaviours are profound. Here we just note a few which can be interpreted as having significant potential to affect the governance of the energy sector.

Chinese government under the rule of the Communist Party has remained highly centralised, at least in principle, and government and society continue to be strongly hierarchical (See for example: Pye 1992; Lieberthal 1995; Fewsmith 2001; Oksenberg 2001; Dittmer 2001). Though the number of individuals and organisations involved in elite policy-making is growing, the process remains centralised and low in transparency. Within the political elite lies a fundamental tension. The policy-making process may be obstructed by deep rivalry between factions based on guanxi, loyalty and, possibly, ideology, and yet the elite must present a public face of consensus. The policy process and this fractionalism rarely percolate down to society as a whole. As a consequence, the characteristics required by those aiming to reach the summit of political power are those relating to loyalty and to skills in bureaucratic competition and negotiation, rather than those relating to formulating and pushing through specific policies and the ability to communicate with society as a whole. Rhetoric and slogans remain a key tool for the state to communicate important ideas and changes in policy to society at large, but individual acts of persuasive oratory are rare. Rather, leaders and bureaucrats seek to outdo each other in their repetition of the consensus view encapsulated in slogans (Pye 1992, 197; Lieberthal 1995, 173). Against this perspective must be set the real and effective steps which the government has taken to increase the professionalism of the civil service, the incentives they are offered and the systems within which they operate (Burns 2004).

Despite these improvements, the long-standing practices of false reporting and feigned compliance, which have characterised the behaviour of government officials in China for centuries, have persisted through Mao’s rule to the present day (Pye 2002, 237; Lieberthal et al. 1988, 23; Tsai 2008). The origins of these behavioural patterns lie not just in the preference for outward harmony over truth, in the weak accountability of public officials and of the near absence of effective checks and balances to their behaviour, but also in the nature of the incentives officials face. Since the 1980s the focus of government policy has been on economic growth and the performance of government officials at all levels, at least those involved in economic activity, as been measured in purely economic terms, most usually GDP growth or some other concrete economic target (Lieberthal 1995, 146–147). In Mao’s time, it was little different, but then the targets were physical output rather than economic growth. In the absence of effective external audit, officials are easily tempted to produce statistics which match or exceed the targets required of them.

### 2.2 Mental models and paradigms

Mental models or paradigms are frameworks which individuals and groups use to interpret events and phenomena and to frame ideas and policies. Three types of paradigm may be identified which have direct relevance to China’s management of energy and natural resources. These relate to man’s relationship with nature, to a preference for self-sufficiency and to a drive by the state to control the use and management of natural resources.

The country’s main ancient philosophical traditions explicitly addressed the relationship between man and nature and emphasised the close inter-dependence between them. Whilst both Confucianism and Taoism stressed the need for balance between man and nature, both strands of belief included adherents who believed that man had the power to control and conquer nature (Economy 2004, 30–36; Miller 2006; Ronan 1978, 222).

More convincing than any arguments based on philosophy is the evidence from history itself. Indeed the very seeds of Chinese civilisation germinated on the realisation that man needed to control water. Four thousand years ago the Emperor Yu was the first ruler to systematically carry out extensive large-scale projects for flood control, irrigation and inland water transport (Ronan 1995, 190). Thereafter, the constant struggle to gain political power and then to retain it led to an environmentally-destructive cycle of warfare and economic development. Respect for nature remained subordinate to the call of power (Elvin 1998; Economy 2004, 36–43).

This was not a feature of China alone, but lay at the heart of the rise of other early “hydraulic societies” in which the control of water lay at the heart of political power, for example in Sumer, Assyria, Egypt and India (Wittfogel 1957). Such an approach to the management of water, the environmental and other natural resources lay in stark contrast to and in tension with the collective decision-making processes that typified local communities in the very same societies and which showed greater awareness of the values of sustainable development (Benvenesti 2008).

The pre-eminence of Communist theory and practice in the governance of China since 1949 has, if anything, accentuated such an approach to natural resources and the
environment. The early decades of the Communist regime saw explicit statements to the effect that natural resources were boundless, and what was required was a greater ability to mobilise society to exploit them. Further, economic development should be pursued regardless of the cost to natural resources and the environment (Woodard 1980, 13–19).

This approach has expressed itself in various forms, from the unquestioned desirability of building very large dams, the subordination of environmental and social concerns to energy production, and the relatively low priority attached until recently to energy efficiency and social welfare (Economy 2004; Andrews-Speed et al. 2008). Indeed, it has been argued that Mao took historical traditions to new extremes in his calls to conquer nature (Shapiro 2001, 1). Though many countries and cultures may be accused of taking such an approach to nature at some periods in their economic development, China would appear to be exceptional in the duration and the intensity with which this belief has been held. Such a view should, however, be moderated by consideration of more nuanced analyses of the actual practices of natural resource management in the early years of communist rule which show that efforts were made to constrain or reverse the negative environmental impacts of agricultural development (Ho 2003).

A fear of external dependence has long underpinned many Chinese policies. After the Communists took power in 1949, a high degree of self-reliance became an immediate necessity as the West failed to recognise the new regime. The Soviet Union stepped in to provide technology and skills which had the potential to play a key role in the development of the energy and mineral sectors. But China was left on its own when the Soviet Union withdrew its support in 1960 (Dorian 1994, 55–62, 56–62; Lieberthal 1995, 76–77; Brammall 2009, 153, 363). The search for self-reliance in the energy and mineral sectors was accentuated by the belief that these sectors should drive growth in the rest of the economy (Dorian 1994, 35–36). The rapid development of the Daqing oil field in Heilongjiang Province during the 1960s became emblematic of the “heroic” self-reliance of the New China (Kambara et al. 2007, 17–23).

Though the open-door policy introduced in the 1980s did result in foreign involvement in the economy, participation by foreign companies in the domestic energy sector remained restricted to those activities for which foreign technologies and skills were absolutely necessary (Keith 1986). These included offshore oil exploration, offshore and onshore gas production, nuclear power, liquefied natural gas and the manufacture of large scale turbines (Andrews-Speed 2004). Indeed, the main objective for the government in inviting foreign involvement in China’s energy sector was to maximise the country’s ability to be self-reliant in energy supply. This preference for self-reliance was exacerbated during the 1990s after China became a net importer of oil, and is reflected not just in government policy but in the attitudes of citizens, even of university students (Constantin 2007; Zweig et al. 2008).

The search for self-reliance was accompanied by the preference for direct government involvement in natural resource projects, especially if they were critical to the interests of the state. In Imperial times, the state became closely involved in projects crucial to its power, such as hydraulic engineering, manufacturing weapons and other military hardware in Imperial Workshops, and the mining of raw materials critical for weapons, for currency and for daily life such as copper, iron, lead, tin, zinc, and salt (Ronan 1994, 3–19; Golas 1999, 425).

State control over industry was an integral part of the economic policy of the Communist Party after 1949, especially for heavy industry (Brammall 2009, 89–91). Government involvement in the energy sector was implemented initially through Ministries for Petroleum, for Coal and for Electrical Power, and, more recently through state-owned energy companies. Despite recent commercialisation, these companies remain under relatively tight government control, especially those owned at central government level. This contrasts with the state of enterprises in most other sectors of the economy which have been largely released from government control and, in many cases, fully privatised. Energy, other natural resources and rail transport remain the exceptions to this general trend of liberalisation (Andrews-Speed 2004).

3 The institutional environment
The institutional environment comprises the formal institutions of the state, both organisations and systems, including government organisations, political parties and the legal system. Efforts to analyse the nature of the state and of the institutions of governance in post-Mao China consistently encounter the apparent dichotomy between, on the one hand, an apparently powerful central government and a unified system of governance and, on the other hand, a fragmented and chaotic structure over which the central government has little control. Indeed, taking an historical perspective, it has been argued that China “is a civilisation trying to squeeze itself into the format of a modern state” (Pye 1992, ix). A further apparent contra-
dition relevant to the institutional environment can be seen in the deliberate steps the government has been taking to enhancing the role of law in society and in the economy, and yet the rule of law continues to be subordinated to administrative fiat.

This section first examines some of the features of the formal institutions of the state, highlighting the main sources of fragmentation which undermine the authority of the state. It then shows how the Communist Party is a critical unifying factor in counteracting this fragmentation. Finally we identify the key features of the evolving legal system.

3.1 Formal institutions of the state

The fragmented nature of China's institutions of governance was documented in some detail by Lieberthal and co-researchers in a series of publications in the 1980s and 1990s (Lieberthal et al. 1988; Lieberthal et al. 1992; Lieberthal 1995). More recent analyses have drawn conclusions that China is a "dual development state" (Xia 2000), a "polymorphous state" (Howell 2006), or a "diffuse developmental state".

This fragmentation affects both the vertical and horizontal links in the formal organisational structures of government. Though China remains a unitary state in theory, the last thirty years have seen the development of an increasing degree of de facto federalism (Shirk 1992, 59–60; Goldman et al. 1999; Montinola et al. 1995). The Centre has delegated substantial policy-making powers to the Provinces. Lower levels of government, particularly at the County level, have gained considerable influence over policy implementation. The powers wielded by different levels of government have been acquired, or lost, through bargaining and negotiation (Lieberthal 1995, 292–313). Only in rare cases have they been defined by law. In the other dimension, the Ministries and other major government agencies form important axes of power from the central government level to as far down as the county.

The impact of this disaggregated structure on policy-making has been exacerbated by three facets of government in China. First, the framework is notably short of formal definitions of the powers and scope of authority of the component institutions, of clear statements of practise and procedure, and of explicit guidelines for inter-institutional relationships. Second, and partly as a result of the first, institutions are highly personalised and dependent on the character, power and connections of the leader, as are relationships between institutions (Lieberthal 1995, 183–218). Informal networks are of great importance (Xia 2000, 214–218). Third, the system is very hierarchical. All institutions and all individuals of any importance hold a specific rank, and this rank is a critical determinant of the geometry of policy bargaining (Lieberthal et al. 1988, 142–157). Negotiation takes place between institutions and individuals of equal rank (Shirk 1993, 92–106).

In addition to the fragmented nature of government, the power of the state-owned enterprises remains a critical feature of China's economy. In the days of the planned economy, the large state industries were either ministries or reported directly to a ministry. For this reason the few remaining large state-owned enterprises retain considerable influence at the highest levels of government (Shirk 1993, 107–115). As a result, the largest state-owned enterprises continue to play an important role in policy-making and, partly as a consequence, they are able to retain dominant positions in their respective sectors. Nowhere is this more important than in the energy sector (Andrews-Speed 2004; Kong 2010).

As a consequence of this fragmentation, multiple centres of power and influence exist and China's governance of economic and industrial policy lacks the key unified sense of purpose and unified governance structure which can be found in typical "developmental states" (McNally et al. 2006). To date, China's government has failed to create a "super-ministry" to guide industrial policy. Even the steps taken in 2009 to create a set of "super-ministries" to govern different parts of the economy failed to effectively address the needs of the energy sector, as will be discussed later in this chapter.

Instead a highly heterogeneous state has emerged from the remains of the Leninist state of Mao. The central government may indeed have lost a certain degree of authority over or control over the lower levels of government and of industry, but of greater importance is that the last thirty years have seen a substantial "reconfiguration of state power" and that nature and extent of this reconfiguration varies greatly across the country (Baum et al. 1999). As a consequence, China today is characterised by contradictory juxtapositions of autonomy and clientilism, developmentalism and predation, and control and chaos. Multiple centres of power, institution building and economic development prevail, and political and economic rivalry exists at and between all levels of government (Xia 2000; McNally et al. 2006; Howell 2006). Indeed, institution building is driven as much from the bottom, at the local level, as from the top, but the nature and development of these local institutions is highly heterogeneous and greatly dependent on the pre-communist and communist economic and political history in each location (Krug et al. 2008; Horowitz et al. 2002).
Such fragmentation would rapidly lead to a breakdown of government were it not for a number of unifying or articulating instruments. The most important of these remains the Communist Party (Krug et al. 2008). The Party is the most powerful organisation in China and is intimately intertwined with all government agencies from central to village level, and with all state-owned enterprises. Even the People’s Liberation Army is subordinate to the Party rather than to the government or to the President. As a result the Communist Party is pre- eminent in all major political decision-making (Pollack 1992; Lu 1996; Lieberthal 1995, 208–218; Naughton 1996, 285; Krug et al. 2008).

In the sphere of economics it might appear to the outsider that the role of the Party is not so great, and that the government sensu strictu wields real power. This distinction may have little meaning for a number of reasons. Firstly, nearly all government officials of any significant rank are also party members and subject to the discipline of the Party. Secondly, most institutions and enterprises have a Party hierarchy which parallels the management hierarchy, and at the top of these hierarchies the Party Secretary nominally or, indeed, actually has more authority than the senior manager. Finally, few important economic policy decisions lack substantial social and political implications.

Key policy instruments for the Party continue to include political and economic campaigns and mass mobilisation (Perry 2007; Shambaugh 2008, 128). The period 2001–2005 saw the creation of four successive ideological campaigns, each with their specific policy objectives, as will be discussed further below: "The Three Represents", "The Socialist Human Society", "Scientific Development" and "Democracy with Chinese Characteristics" (Shambaugh 2008, 111–124).

3.2 The legal system
The approach to law throughout the more than two thousand years of Imperial China arose from an amalgamation of the ideas of from two schools of thought, Confucian and Legalist. The result was a highly structured system of law-making, laws, regulations and courts which was directed at promoting and protecting the interests of the state. The law provided no formal constraints on the ruler and no protection for the individual. Indeed the legal system viewed the family as the basic unit of society, not the individual. No separation of powers existed and the legal system was seen as a political tool and as an administrative device to be managed by the government bureaucracy. Punishments were intended to be harsh, yet the nature and level of punishment depended on the status of the individual; the higher the status the milder the punishment. Citizens could gain access to the law, but this was not the prime objective of the legal system. Indeed, and possibly because of this, citizens preferred private ordering of disputes rather than submitting to the courts (Peerenboom 2002, 27–43; Chen 1999, 6–17). Such a system of law is consistent with Chinese culture favouring a society which is highly stratified and which places little emphasis on the role of the individual (Licht et al. 2007).

The last years of the Qing dynasty, at the dawn of the twentieth century, saw the start of an attempt to reform the legal system and to adopt attributes of systems from Europe, especially Germany, and from Japan. These efforts were halted by the Nationalists who preferred a more traditional approach whereby the role of law was to maintain social stability. The first thirty years of Communist rule from 1949 was characterised by an almost complete lack of interest in the law, and in the abandonment both of the Nationalist approach and of attempts to import features from the developed economies (Peerenboom 2002, 43–46; Chen 1999, 23–39).

Since economic reforms started in the late 1970s, the government has made great strides to draft new laws and regulations, to create a new cadre of professional lawyers and judges, and to spread understanding of the importance of the law. In pushing forward these reforms, the government has drawn extensively on international examples, especially in the realm of economic law (See for example: Chen 1999; Peerenboom 2002; Jones 2003; Zhu 2004; Clarke 2007a). Constraints to the pace and development of legal reform include the close relationship between the courts and both Communist Party and the local government, for courts are directly responsible to the government at the level at which they operate (Zhu 2004; Clarke 2007b; Liebman 2007; Lam 2009). More fundamentally, the overall approach to the law continues to bear a striking resemblance to that of Imperial times: that is to say that the law is seen as an instrument of government, or even Party, policy to be used to retain power, maintain social order and promote economic development (Peerenboom 2002, 80–83). Further, a great deal of social learning is required for citizens to fully appreciate the role of law in a society subject to the rule of law, and this is unlikely to come quickly in a culture dominated by hierarchy and social conformity. Indeed it can be argued that the rule of law is less necessary in a collective culture than in an individualistic culture (Licht et al. 2007; Greif 2006, 294–295).

In terms of the role of law in economic activity, two im-
portant features deserve emphasising. First, the law in China is notorious for failing to provide secure property rights. Rights are poorly defined in law, and government agencies at all levels of government exercise their “right” to transfer rights with little due process. Within this context, many enterprises appear to have been very successful at enhancing the degree of protecting of their property rights through the building of networks and the use of guanxi involving both public and private sectors (Krug et al. 2008; Wank 1999). Second, citizens, enterprises and public agencies continue to prefer to settle civil disputes through private ordering rather than going through the court system (Peerenboom 2007, 197).

4 What has driven energy up the political agenda in China?

Despite the importance of energy to a modern economy and to daily life, the sector is rarely at the top of the policy agenda for national governments for long periods of time. Exceptions are those countries which are major exporters of energy and which are highly dependent on revenues from these exports to support national development. In other countries, energy supply is commonly taken for granted, and the government devotes its attention to other economic or political objectives which are considered to be more important at the time.

It takes a crisis, an impending crisis or an apparent crisis to bring energy to the attention of most governments. Such crises tend to take the form of events or sudden changes of trend which in themselves create a threat, enhance an existing threat, or create or enhance the intensity with which a threat is perceived. They include an increased probability of the threatened event materialising, an increased scale of impact from such an event, or a reduced ability to react to the threat should it materialise.

Most commonly it is a threat to security of supply which brings energy onto the government agenda. The source of the threat may be domestic or international. In the case of China, it is both. Increasing dependence on imported oil over since 1993 and high levels of international oil prices between 2003 and 2008 pushed oil steadily up the government’s agenda. But the continued ability of the international markets to supply these imports and of the country to pay for them had the consequence that this increasing vulnerability did not bring oil to the top of the agenda.

In contrast, the realisation by China’s government in 2004 that the country faced a major shortfall in domestic energy supplies, particularly of electricity, brought energy security to the top of the agenda. Immediate and radical action was needed to ensure that the economy and people’s livelihoods were not seriously damaged by a shortfall in energy. Attention switched from the production of energy to its consumption, and to the challenge of reducing waste in all parts of the energy supply chain (Andrews-Speed 2009a).

The new importance attached to energy security by China’s government was enhanced by renewed worldwide concern during the first decade of the twenty-first relating to the future availability of energy supplies (See for example: Kalicki et al. 2005; Barton et al. 2004). This concern comprised three factors. The first derived from the perception that the level of investment in new oil and gas supply capacity in major exporting countries was inadequate to meet medium-term demand. The second was a resurgence of the belief, widely held in the 1970s and early 1980s, that primary energy resources were close to depletion. Thirdly, the early years of the century demonstrated that the liberalisation of electricity markets had created a range of systematic risks which had not been adequately addressed.

Two further issues have brought energy up the agenda around the world. The most prominent of these relates to the environment and, particularly, to global warming. Within China, the negative environmental impacts of the country’s dependence on coal have long been recognised by the Chinese government. Though action has and continues to be taken to constrain these impacts, environmental concerns alone have not been sufficient to raise energy up the government agenda. Indeed, even the recently enhanced enthusiasm for addressing climate change builds mainly on the energy efficiency programmes which themselves are driven by security of supply objectives (Neiderberger et al. 2006; Meidan et al. 2009). A further driver for integrating climate change issues into energy policy has been the government’s fear of a loss of international reputation should it be seen not to be actively addressing these challenges.

The second issue relates to the need in developing countries to supply inhabitants with modern and clean supplies of energy. China has achieved remarkable success in this respect, for less than 2% of the population now lack access to electricity. As a result, the physical supply of modern energy to all segments of the population is not now a major policy concern, though the appropriate pricing of this energy remains an important priority (Andrews-Speed 2009b).
5 New ideas and slogans in China’s energy sector

Against a background of long-held beliefs and socialist values, a number of new ideas relevant to energy and natural resources policy started to enter the thinking of the Chinese government since the 1980s. Whilst they have not caused the abandonment of the earlier beliefs, they have variously created tensions in the processes of policy-making or implementation or have caused adaptations to existing policy. Not surprisingly, most of these new ideas have their source either in the growing internationalisation of the country or in its rising wealth.

The first idea of direct relevance to the energy sector entered into the thinking of China’s government during the 1990s through the World Bank and other providers of economic advice. The belief that market forces could and should be introduced to the domestic energy sector, even to electrical power, was still relatively new even in the West, and became part of the tide of advice flowing into China (World Bank 1994; Shao et al. 1997; Berrah et al. 2001). Zhu Rongji, in his position at the head of the State Economic and Trade Commission and later as Prime Minister, was a supporter of this approach. As a result, steps were taken during the 1990s and into the early 2000s to restructure the energy industry, to reduce the extent of government intervention in operational management, and to start to introduce market forces to the energy sector (Andrews-Speed 2004).

These steps towards liberalisation were constrained by the government’s desire to retain ownership and control over key sectors of the economy, such as energy. Thus government, at both central and provincial levels, maintains majority ownership and control over most large energy companies in China, despite steps to commercialise and to list these companies on domestic and international stock exchanges (Andrews-Speed et al. 2005). In this way have the “old ideas” constrained the implementation of the “new”. Given the recent shortages of energy in China and the dubious experiences of energy markets in other countries, this cautious approach is almost certainly to be proven appropriate at this stage of China’s development (Andrews-Speed 2009b).

An idea which has been embraced with greater enthusiasm has been the need for international economic engagement. Again, this was pushed by Zhu Rongji, and China’s accession to WTO is emblematic of his achievement (Lardy 2002). However its application to energy has been pursued with a higher degree of selectivity than in other sectors of the economy. Foreign investment in China’s energy sector remains difficult and at a low level, including in the wholesale and retail of oil products which have been newly opened under the WTO accession agreement. Long-standing obstacles include policy and legal ambiguity, the market power of incumbents and the pricing systems for oil products and electricity (Andrews-Speed 2004; Andrews-Speed 2009b; Wang 1999; International Energy Agency 2009a, 40).

China has pursued international energy engagement in a number of fields. These relate to overseas investment by state-owned energy companies, the increasing import of energy products, bilateral energy diplomacy with energy exporters, and active participation in international organisations relating to energy (Andrews-Speed et al. 2002; Lieberthal et al. 2006; Ma et al. 2006; Downs 2000; Mitchell et al. 2007). To a great extent this engagement has been driven by the country’s growing dependence on external supplies of oil and, to a lesser extent, of natural gas. Thus the power of necessity has overwhelmed the power of old ideas of self-reliance and isolation in the field of energy in the face of the over-riding priority placed on economic growth.

Two sets of ideas specifically relating to energy which have been prevailing around the world have made an impact in China to different degrees. As mentioned in the previous section, the resurgence of the fear of an imminent depletion of certain energy resources has found resonance with the government, and has underpinned its support for overseas investment by national oil companies as well as the growing scope of its energy diplomacy. In contrast, the prerogative to protect the environment, both locally and globally, was not initially embraced by government with the same enthusiasm. Rather, such concerns appear to have been subordinated to the need to maximise economic growth.

Nevertheless, the 1990s and first decade of the twenty-first century have seen the government show a greater willingness to recognise the environmental challenges created by thirty years of rapid and poorly regulated economic growth, and a growing willingness to invest political and economic capital in addressing these challenges. This trend has been exemplified by the emergence of new political slogans such as the “conservation society” and “scientific development” (Constantin 2007; Hallidng et al. 2009). Despite these efforts and the elevation of the State Environmental Protection Agency to ministerial status in 2008, many fundamental deficiencies lie at the heart of China’s systems for regulating the environment (Ferris et al. 2005; Economy 2004, 91–128; Ma et al. 2000, 115–131).
Switching our attention to Chinese society, especially to urban middle-class society, the acceptance of and respect for austerity would seem to be disappearing (Goodman 1999; Smil 2004, 144; Rosen 2004). It has been replaced by a wasteful materialism which does not yet appear to be tempered by consideration of the wider impacts of this behaviour on the environment. Certainly the last two decades have seen a growth of environmental awareness across society of the extent of and the consequences of damage to the environment, one of the symptoms of which has been the expansion in numbers and degree of activism of domestic environmental NGOs (Economy 2004, 129–175; Gough 2004; Thompson et al. 2006).

Yet China has yet to experience the rebellious, environmentally conscious, “back-to-nature” movements which swept through Europe and North America in the 1960s and 1970s and which, despite their eccentricities, provided an important impetus for the development of today’s appreciation of global warming and other environmental threats. Instead, the growing middle classes in China, as in many countries today, enjoy and expect plentiful energy supplies at low prices. Though they may have some appreciation of or concern for the longer-term costs in terms of security of supply and environmental damage, their perception of the importance of the environment and their willingness to adapt their behaviour voluntarily appear to be limited (Lee 2005).

To a great extent the development of these attitudes may have been caused directly by government propaganda which for thirty years has placed greater emphasis of economic growth than on almost any other socio-economic parameter. However, some evidence exists that a significant proportion of Chinese university students are indeed aware of the environmental and energy challenges facing China and are willing to take certain steps in their own lives to address these challenges (Lee 2005; Zweig et al. 2008).

6 Conclusions

An understanding of the institutions of sector governance is essential in order to appreciate the likely future trajectory of national energy policy in any country. But an examination of the formal organisations and systems within the government by itself is insufficient. Just as important are the less tangible aspects of the governance system, some of which may have their roots deep in the past history of the nation.

This paper has identified and examined a number of the attributes of the institutions of governance in China as they relate to the energy sector, in order to provide a start-

References


中国能源管治透视

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摘要: 本文分析了中国能源管理体制, 揭示了可能影响中国未来能源部门演变趋势的诸多主要特征。一方面, 中国能源管理的嵌入式体制是植根于中国四千多年的悠久历史和发源于中国农田水利制度; 另一方面, 现有的体制环境分析表明: 上述深深固化的价值观影响着政府架构和法律体系的运作, 也为能源部门的决策和实施提供了指导框架。当今世界, 无论中国国内还是国外所发生的各种事件共同决定了能源在政府政策行动中地位高低, 以此同时, 政府也观察世界各国并寻找新的策略, 应对能源领域中各种新的或旧的挑战。

关键词: 能源; 管治; 体制; 中国