Regulating China's Power Sector: Creating an Independent Regulator without Autonomy*

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Abstract

Throughout its period of economic transition, the Chinese state has readjusted its relationship with industry and developed new regulatory schemes. China's first industry-specific independent regulatory agency, the State Electricity Regulatory Commission (SERC), was created in 2003. Its operation does not follow Western practice which adopts the best institutional arrangement for autonomous regulators. This article will examine the failings and regulatory capture of SERC. I argue that because the process of creating a new regulator involves resource reallocation and power redistribution, SERC has suffered both endogenous and exogenous disadvantages since its inception. The compromised institutional design, along with insufficient resources and fragmented authority, has considerably weakened SERC's regulatory capacity. Moreover, SERC was not designed as part of the reform schedule, but rather emerged later as a response to institutional necessities, which also contributes to its vulnerability. As a result, the state has exposed SERC to potential capture by both government entities and regulated enterprises.

Keywords: China; power reform; independent regulatory agency; State Electricity Regulatory Commission; regulatory capture

In adopting a gradualist approach to replace a rigidly planned economy with a market economic system, the Chinese state has demonstrated how capable it has been in managing the reform process. Nonetheless, a rapidly evolving situation requires the Chinese state to distinguish its role vis-à-vis industry. China now needs a new direction in which to position itself while mapping out further reform schemes. A major task for the central government is to adjust its role and redesign its administrative structure to enhance the sinews of governance and respond to the changing nature of economic growth. As the Chinese state

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looks towards other countries to learn from their development experiences, it is presented with a choice between two models, the developmental state and the regulatory state, and has moved towards the latter.[1] As an essential component of the regulatory state model, independent regulatory agencies (IRAs) implement more credible, effective regulation because of their autonomy.[2] Therefore, the advancement of Chinese IRAs reflects the interaction between the state and industry, and the state's determination to build up a functioning regulatory system.

In the industrial sector, the 1998 administrative reforms demonstrated a monumental effort to change the relationship between the Chinese state and industry and led to the comprehensive restructuring of regulatory systems. The reforms delivered a clear message that government functions and business activities should be separated, and that there should be a level playing field for both the state-owned enterprises (SOEs) and private firms. Against this background, the State Regulatory Electricity Commission (SERC) was created in 2003 to facilitate market competition and promote reform in the power sector. The formation of SERC was also regarded as a milestone for China's electricity reform, which was initiated in the mid-1980s. The reform scheme involved ownership reshuffling and industrial restructuring.[3] The World Bank has developed a universal template for power reform and has promoted it in both developed and developing countries; however, this model has failed to take root in many countries owing to the involvement of international actors and different political and economic systems.[4] Although guided by international organizations, China's electric power industry has been caught up in the political struggles between the reformists and conservatives which have significantly delayed the reform process.[5] Facing both exogenous defects and endogenous weaknesses, SERC is unable to fulfil its mandate and orchestrate further reform. Despite the promising intentions behind the creation of SERC, the reform progress has stalled and the entire sector is dominated by the gigantic state power enterprises SERC is charged with regulating.

In this article, I examine why SERC has failed to function and how it has been captured by the bodies it is meant to regulate. I argue that because the process of creating a new regulatory agency involves resource reallocation and power redistribution, SERC has faced challenges from other government entities since its inception. The compromised institutional design, along with insufficient resources and fragmented authority, has considerably weakened SERC's regulatory capacity. In addition, SERC was not designed as part of the reform schedule but instead emerged later as a response to institutional necessities, a factor which

1 Pearson 2005.
2 Majone 1997.
3 Xu 2002.
4 Xu 2004.
5 The study of SERC could be set within the broader contexts of either IRA development or power reform in China. The author situates the discussion in the former scenario. For more detailed information about China's electricity reform, see Chen 2010 and Tsai 2011.

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also contributes to its vulnerability when facing those it is meant to regulate. The state has, in fact, left SERC exposed to potential capture by government entities and the regulated enterprises.

There has been increased debate among scholars and state officials in China about the limits of autonomy for functioning IRAs, their relationships with other government bodies, the political responsibility of their actions, and the mechanisms for enhancing their accountability.[6] Policies to determine the main lines of institutionalization and consent have not yet fully matured. SERC is the first industry-specific IRA and is a model for other industries such as telecommunications.[7] It therefore provides a fitting context through which to examine China's regulatory development.

The data were gathered from archival studies and the author's field trips to China between 2008 and 2011. More than 40 interviews were conducted with scholars, government officials in SERC, the National Development and Reform Commission (NDRC) and the State-owned Assets Supervision and Administration Commission (SASAC), local cadres, and corporate managers from SOEs and private power companies in various provinces, including Beijing, Heilongjiang, Henan, Shandong, Zhejiang and Guangdong. In addition, the author also obtained some unpublished documents from the interviewees.

This article begins with a brief discussion of the rise of IRAs, which is then followed by a description of regulatory development in China and the power sector in particular. It goes on to examine the factors that prevent SERC from effective operation and concludes by discussing the implications of the expansion of IRAs for China's state–business relationship, industrial reform and future regulatory development. Using SERC as a case study, this article contributes to our understanding of the government–industry nexus and the interactions between state entities, and establishes that it is impossible for a fully-functioning IRA to operate in China's unique economic situation.

The Rise of Independent Regulatory Agencies

IRAs are governmental entities that are separate from other institutions but which possess and exercise some degree of specialized public authority. They are neither elected by the people nor directly managed by elected officials.[8] The rise of IRAs has its origins in American political development dating back to the Progressive Movement and the New Deal. When faced with an economic crisis, the US government decided to adopt neutral, professional administrative mechanisms that were above party strife and sectional interests to control business. With their isolated status and legalistic tradition, IRAs have become a

6 Ma 2008; Wang, Junhao, and Zhou 2008.

7 Although China's scholars and experts have been actively calling for an autonomous regulator to be set up in the telecommunications sector since 2005, the Chinese government has no plans to do so, partly owing to its lack of success with SERC.

8 Thatcher and Sweet 2002, 2.

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practical tool for economic governance. In the 1960s, American regulatory development entered into a new age of social regulation during which innovative IRAs emerged to supervise a wide swath of issues, such as safety and the environment, that went beyond their original economic remit.

Since the early 1970s and the trend towards globalization, American regulatory standards and institutional designs have spread and have profoundly influenced the rise of state regulation in Britain. Following the great economic crisis of the 1970s and a deep institutional crisis in the government, Britain radically changed its policy direction from an interventionist state to a regulatory state. This gave rise to an ambitious programme of privatization and deregulation.[9] Because public ownership had proved ineffective, the British government adopted a policy to sell off large state-owned assets in an effort to overcome the problems of economic inefficiency and public accountability. In so doing, the state solved these problems not by withdrawing from command but by unleashing the irresistible power of business. Instead of designing policies and managing the industries itself, the state chose to delegate authority to IRAs because they have better technological expertise and greater policy credibility and continuity.[10] Most importantly, by maintaining a distance from elected politicians, IRAs are able to resist political interference in general and thus enjoy the kind of autonomy not afforded to government ministries.[11] The IRAs have become "one of the most widespread institutions of modern regulatory governance," and "the use of this kind of institution has mushroomed during the 1980s and 1990s and continues to increase."[12] State regulation through IRAs is regarded as the most viable tool of governance. Behind the creation and diffusion of IRAs lies the firm belief that independence from political and business controls is key to their performance as effective regulators.

IRAs are seen as one of the eventual goals of reform in various industries and are viewed as a way to promote effective state regulation and ensure a reliable market. Hence, although the macroeconomic circumstances are not alike, the American and British experiences provide China with helpful lessons and guidelines on how to develop a modern regulatory mechanism that fits its unique political and economic system. It is too early to argue the rise of the regulatory state in China, but undoubtedly regulatory reform has been initiated in response to shifting macroeconomic circumstances there.

Regulatory Development and IRAs in China

Although there has been a gradual adjustment in China's regulatory system during the reform era, the large-scale SOE reform in 1997 forced a massive

9 Marquand 1988.
10 Levi-Faur and Gilad 2004.
11 Majone 1997, 152–55.
12 OECD 2002, 91.

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expansion and increase of pace in this area. The major policies of "grasping the big, releasing the small" (*zhuada fangxiao* 抓大放小) and "separating government and industry" (*zhengqi fenkai* 政企分开) were introduced in a bid to reshuffle the state sector, and were followed by the extensive development of regulatory systems and government reorganization in 1998. The administrative streamlining spearheaded by the then-premier, Zhu Rongji 朱镕基, eliminated nine ministries that managed specific industries and further empowered comprehensive and macroeconomic-oriented commissions.[13] China's regulatory systems and logic of economic governance have undergone a sea change. In the thriving private sector, the state has taken on the role of referee; in the remaining influential state sector, the state has morphed from being controller to being owner and regulator. It has concentrated public ownership in a governmental body and delegated the authority to regulatory institutions.

In the industrial sector, the presence of different paths towards regulatory development demonstrates that the central government has contemplated the heterogeneous conditions and diverse stages of reform and realized that "one model does not fit all." Therefore, various types of regulatory agencies have sprung up, such as IRAs, ministerial departments and ministry-level bureaus. The Chinese state's ultimate goal in this area is to separate political and regulatory functions (*zhengjian fenkai* 政监分开) in order to supervise the SOEs well.[14] Hence, two regulatory trends are expected. First, more industry-specific IRAs will be created, and second, the existing regulators will expand their coverage to include more industries and transform into multi-sector regulatory bodies.[15]

To date, China has four IRAs in terms of economic regulation. Besides SERC, the remaining three are in the financial sector. The first IRA, China Securities Regulatory Commission, was formed in 1992 in response to increasing chaos in the unruly stock market in Shenzhen. China's policy makers adopted the IRA model following consultation with their Taiwanese counterparts and after considering the lessons of financial history.[16] To improve the management of the fast-growing financial sector and ensure trading platforms, the central authority followed a similar line of reasoning to create two more IRAs, the China Insurance Regulatory Commission and China Banking Regulatory Commission, in 1998 and 2003, respectively. Although these IRAs were not set up in advance of, or even concurrent with, reform, the relevant laws passed or amended by the National People's Congress have provided them with strong

13 Lan 1999.

14 This step is designed to clarify the division of labour between policy-making bodies and regulatory entities under China's unique economic regime. It is rarely found in regulatory development in Western countries as their regulatory agencies are also equipped with policy-making functions.

15 The latter point was demonstrated in the administrative reform of 2008 when the Chinese state created five super ministries.

16 China.com.cn. 2009. "1990 nian Zhongguo Zhengjianhui chengli" (The establishment of China Securities Regulatory Commission in 1990), 29 September, http://www.china.com.cn/economic/txt/2009-09/29/content_18624019.htm. Accessed 29 January 2013.

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and necessary backup.[17] Their organizational autonomy and clear legal mandate enable effective enforcement and prevent interference from other government bodies and business interests. A noteworthy feature of IRAs in the financial sector is that there is a clear division of labour between them and two other critical supervisory ministries, the Ministry of Finance (MOF) and the People's Bank of China.

The Regulatory Evolution of China's Power Sector in the Reform Era

China's power sector has adopted various regulatory mechanisms at different stages in response to the reform agenda (see Figure 1). During the early stages of reform, the ailing power sector was one of the biggest obstacles to economic progress. Owing to inefficient productivity and insufficient investment, power shortages created major bottlenecks which impeded economic expansion.

In 1979, the Chinese state reinstituted the Ministry of Electric Power (MEP) in order to restore the devastated infrastructure and kick-start stagnating power plant projects.[18] In 1982, the Ministry of Water Resources and Electricity (MWRE) was established by integrating the MEP with the Ministry of Water Resources.[19] This was to resolve the contradictory and ambiguous responsibilities held by the two ministries.[20] In the administrative restructuring of 1988, the Ministry of Energy (MOE) was formed, incorporating the functions of several previous ministries, including the MWRE and the ministries for the coal, oil and nuclear industries. The MOE was responsible for the entire energy sector and facilitated the sector's development at large. In addition, the China Electricity Council (CEC) was created to serve as a bridge between the government and the power industry. It provides consultation services and advice to power companies and delivers the industry's feedback and concerns to the government. To date, both the state and power companies continue to rely heavily on this communication channel.

Although the MOE oversaw all the different power industries, it was unable to implement a similar programme of reform for every one of them and needed to design separate projects to meet the specific requirements of each industry. The unsolvable difficulties of coordinating and managing various industries resulted in the abrogation of the MOE and the reformation of the MEP in 1993. The MEP followed the existing guiding principles and kept the industrial structure intact. The CEC's coordinating role was further consolidated when some retired MEP senior officials took posts there. Another breakthrough was the

17 These laws include the Securities Law adopted in 1998 and revised in 2005, the Insurance Law promulgated in 1995 and amended in 2002, the Commercial Banking Law and the People's Bank of China Law, both adopted in 1995 and amended in 2003, and the Law on Banking Regulation and Supervision adopted in 2003 and amended in 2006.

18 The Ministry of Electric Power was first instituted in 1955, but was dismantled in 1958.

19 Dangdai Zhongguo congshu bianji weiyuanhui 1994.

20 Lieberthal and Oksenberg 1988, 94–105.

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Figure 1: **Evolution of Regulatory Authority of the Power Industry since 1979**

MEP	MWRE	MOE	MEP	SETC & SDPC	SERC
1979	1982	1988	1993	1998	2003

Source:
Author.

promulgation of the Electricity Law in 1995. It provided a legal basis and comprehensive framework for the ensuing power reform and general provisions for the industry.

Despite the frequent reorganization of the administrative agencies, the Chinese state still had not yet touched upon the fundamental issue of comprehensive industrial restructuring. China's power reform was merely a response to economic constraints and an effort by the central state to maintain legitimacy.[21] Limited reform and prevailing state ownership had generally kept the industry under tight control, but the growing influence of local governments challenged this vertical supervisory structure as the local governments strived to protect their own interests. Rather than promoting market competition, liberalization had instead introduced structural and regulatory paradoxes.

With the enforcement of the separation of government and enterprise came an extensive restructuring plan for the power industry in 1997. The first step was to lay the structural foundation for subsequent reform. Owing to economic concerns, the central government chose a policy of corporatization instead of privatization.[22] In 1997, the State Power Corporation of China (SPCC) was formed. It was a separate economic entity designed to perform business functions. A colossal holding company that was fully owned by the State Council, the SPCC managed most of the infrastructure, including about 50 per cent of power generation and almost the entire network system. In 1998, the central government dismantled the MEP and transferred its functions to the State Economic and Trade Commission (SETC) and State Development and Planning Commission (SDPC). As a result, they became the two major regulators of the power industry. The SETC was responsible for devising policies and supervising the industry, while the SDPC controlled the pricing systems and reviewed investment projects. By restructuring in this way, the Chinese state resolved many of the institutional difficulties involved in unifying governmental administration and business functions, clarified duties and reduced the misallocation of resources.

Nonetheless, the SPCC was too powerful to be regulated. While vertically integrating the power generation and grid systems, the SPCC enjoyed a monopoly status and domination over independent power plants. In addition, the fact that most former MEP senior officials were moved to the SPCC created in effect a "corporatized ministry" and made it difficult for the state regulators to

21 Yeh and Lewis 2004.
22 Andrews-Speed and Dow 2000.

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implement any effective management. For instance, Shi Dazhen 史大桢, the last minister for electric power, was the first general manager of the SPCC. The lack of technical expertise was another critical factor – the SETC and SDPC officials did not have enough professional knowledge to supervise the industry. In general, prior to 2003, the power sector's regulatory framework suffered five major problems: the lack of a specific and authoritative regulatory body; political interference resulting in unclear goals; inadequate legislation; insufficient regulatory capacity; and weak supervision over regulatory agencies.[23]

The Creation of the State Electricity Regulatory Commission

In the 1990s, there was a global trend towards electricity reform as a result of technological advancement. As a latecomer to this reform, the Chinese state was in a position to identify the strengths and weaknesses of the various reform experiences of other countries and receive assistance from the World Bank and Asian Development Bank in designing an appropriate regulatory framework. China has realized the necessity of an IRA to monitor the power industry and has designated this as the core element of its reform agenda. The idea of formulating an IRA in the power sector first appeared in the mid-1990s. At that time, the MEP and World Bank jointly worked on a project to explore the development of a regulatory framework for electricity reform. Following three years of study and several seminars, this research concluded in a collaborative report published on 18 January 1997, two days after the SPCC was formally established.[24] The authors of this report proposed that "a national regulatory authority (hereinafter referred to as the 'National Power Regulatory Commission') should be created separate from other government institutions and should be responsible to the State Council."[25] They also suggested that the state should supervise the power sector through a functional regulatory and legal system rather than directly manage it through administrative directives.[26] Unfortunately, this proposal was not incorporated into the reform agenda until five years later.

Drawing on experiences from previous electricity reforms, the then-premier, Zhu Rongji 朱镕基, made a significant shift from "reform from within" to "reform from the outside." Previously, reform projects were proposed by the lead agency of an industry. This model was scrapped and replaced with a designated group, the Electricity Reform Coordination Leading Group, comprising of representatives from various government institutions. In October 2000, the State Council issued the "Notice on relevant issues concerning the structural reform of the power industry." The central state made it clear that power reform should be led by the SDPC and tasked the Electricity Reform Coordination Leading Group with drawing up a new reform scheme. The director of the group was Zeng

23 Gao 2002.
24 Shao et al. 1997.
25 Ibid., 48.
26 Ibid., 53.

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Peiyan 曾培炎, the chairman of the SDPC at that time. The SDPC presented its first reform proposal in May 2001. It was remarkable in that it identified the creation of an autonomous regulatory agency as the major goal of the reform. The project also suggested restructuring the SPCC. However, this was not considered the most effect way to break up the SPCC's monopoly and eliminate local protectionism, so it was brushed aside.[27]

After additional research on the reform experiences of Western countries, the SDPC prepared a new reform scheme, which was approved by the State Council in January 2002. According to the draft proposal, the SPCC would spin off into two grid companies and five power companies. The central government would also create a ministry-level regulatory body to supervise the industry, but there was debate over how much authority should be given to this new regulatory agency. Three options were under consideration. First, the agency would regulate all aspects of the industry; however, this design would involve many government entities and therefore would be hard to implement. Second, the agency would be responsible for monitoring market operations; however, it would also then run the risk of having no real power. Third, the agency would be a transitional institution, focusing on market regulation first and then gradually extending regulation to other areas. The problem with this option was that there was no clear schedule as to when the agency should expand its coverage. Obviously, each of these choices had its own difficulties and there was no obvious solution. The central state eventually adopted the third idea and formed SERC.

Against this background, in 2002, the Chinese government issued a document detailing a landmark reform project entitled "Circular of the State Council concerning the reform of the power structure" (also known as Document No. 5). This circular mandated the divestiture of the SPCC and the break-up of its monopoly, and the formation of an autonomous regulator, SERC. It signalled the state's determination to build up a modern regulatory system. The role of the state was redefined so that it was no longer both owner and manager, but was now split between owner (SASAC) and regulator (SERC).

SERC's mission is to formulate regulatory rules for market operation, monitor the power markets, ensure fair competition, propose tariffs and adjustments, enforce safety standards, issue and manage business licences, and supervise policy implementation.[28] While both the state and the industry embraced this new agency, there was no way to gauge the effectiveness of SERC's performance until a sufficient amount of time had passed. As reforms stalled and regulatory contradictions were revealed, it became evident that SERC suffered from both endogenous and exogenous defects and had been exposed to regulatory capture from its inception.

27 Chinanews.com. 2002. "Zhongguo dianli tizhi gaige beiwanglu" (Memorandum on China's power reform), 30 October, http://www.chinanews.com.cn/2002-12-30/26/258825.html. Accessed 6 June 2011.
28 For more information, see http://www.serc.gov.cn/english/index.htm.

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Endogenous Defects

The process of creating a new regulator involves resource reallocation and power redistribution and thus SERC has faced challenges both from within (organizational configuration) and from outside (other government bodies). It bears a number of endogenous flaws owing to a lack of resources which prevent it from functioning effectively.

Status of the institution

SERC is a ministry-level administrative body that is classed as a "public service unit (PSU) directly under the State Council" (*guowuyuan zhishu shiye danwei* 国务院直属事业单位).[29] PSUs were created as public service providers, similar to non-profit organizations.[30] Unlike IRAs in Western countries which are decreed by law, SERC was created following the announcement of two statutes approved by the State Council: the "Regulations on administration of the establishment and staffing of the administrative agencies of the State Council" and the "Provisional regulations on the registration of public institutions." SERC was instituted when the executive body issued its "Provisions on the function disposition, internal structure and staffing of the State Electric Power Regulatory Commission." As employees of PSUs are not recognized as bureaucrats, the creation of SERC would not be seen as going against the moves to streamline bureaucracy in the administrative reform of 2003.[31] In addition, this designation increases agency autonomy because the Chinese premier can appoint the leadership without the approval of the NPC.[32] However, SERC also suffers from its PSU categorization as PSUs are inferior to traditional ministries in the State Council hierarchy. Although it was granted ministerial rank and regulatory functions, this new IRA does not possess the right to formulate rules or to make specific stipulations on punishing scofflaws.

Legal framework

The Electricity Law was promulgated in 1995 and put into effect in 1996 as the sound legal basis for electricity reform. In 2003, modifications to the Electricity Law were tabled onto the NPC annual agenda, although nothing substantial has been done since then.[33] Today, this inadequate and outdated legislation has significantly hindered the development of the industry, which has already undergone two rounds of restructuring. Experts and scholars have repeatedly put forward proposals to amend the law to take into account the changing situation, but

29 The other three IRAs also have the same status.
30 World Bank 2005.
31 Interview with research fellow, Beijing, 7 July 2009.
32 Pearson 2007, 723.
33 The NPC made minor changes to the wording of three clauses in 2009.

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the central government obviously has no plans to do so in the near future.[34] SERC is only able to wield its authority according to the "Regulations on electricity regulation," issued by the State Council in 2005. Because these regulations are decrees issued by the State Council, they do not give SERC the same enforcement authority as a statute law. The lack of a sound legal basis makes it difficult for SERC to clarify its responsibilities and therefore to enforce regulation.[35]

Moreover, the IRA is responsible for instituting the power markets it is delegated with supervising. Only if the power markets are established and functioning can SERC perform its regulatory duties. The dilemma is that SERC is not fully supported by an adequate legal framework that will allow it to create a market system. Hence, with nothing for it to regulate, SERC cannot be regarded as a functioning IRA.

Organization

SERC has always been afflicted by problems of understaffing. While staff numbers may increase depending on practical needs in the future, there are only 98 permanent staff members to perform all its tasks, although this does not include the employees of local branch offices.[36] In sharp contrast, there are more than 1.5 million employees in the State Grid Corporation (SGC). Another surprising fact is that SERC was actually funded by the SGC during its first three years. Even though its funding now comes from the MOF, SERC's annual budget proposal still needs the approval of the NDRC.[37]

SERC also has its own independent source of finance from the charging of fees to issue business licences and work permits – responsibilities that were originally handled by local governments. However, owing to the loss of this revenue, local governments are reluctant to transfer authority to SERC's local offices. For example, occupational qualification certificates are now issued by SERC, but local governments have responded by not publicizing this information. As a result, power industry workers continue to apply to the local government for the certificates. Unfortunately, SERC is unable to punish or even challenge uncooperative local officials owing to the lack of clear regulations.[38]

Insufficient support was provided to SERC during the setting-up phase, particularly when it came to resource reallocation. Because of the tight budget and personnel shortage, it is difficult for SERC to establish local branches and therefore it must appeal to the power industry for support. This predicament is reflected in SERC's facilities. Ironically, SERC is located in the SGC building

34 The issue was raised again in the NPC meeting in 2012. See People.com.cn. 2012. "Jianyi xiugai 'dianlifa'" (Recommendation on revising the electricity law), 4 March, http://lianghui.people.com.cn/2012npc/BIG5/17287815.html. Accessed 15 June 2012.

35 Zhou 2003.

36 Understaffing is also a problem for SERC's local offices. At the regional and provincial levels, there are only 53 and 15 staff members, respectively.

37 Wang, Zhiqiang 2006.

38 Interview with local-level official, Shandong, 15 June 2008.

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in Beijing. Some of the provincial branches lease office space from the power companies.[39] The regulator is beset by the fact that the firms it is supposed to regulate are indeed its landlords. This unusual situation is also evident in personnel arrangements. SERC requires a professional team, including experts on technology, management and law, to manage complex electricity affairs. Since SERC has no predecessor and had to be equipped and ready to perform its assignments, the IRA recruited staff from other government bodies or from the power sector. At the central level, the majority of officials were transferred from the SPCC and the former department of electricity of the SETC. At the local level, most staff members and technicians were transferred from the regulated SOEs. Some of them are even still paid by their home work units and can decide either to stay in SERC or return to their original positions.[40] Insufficient resources and close ties to industry greatly impair SERC's autonomy.

Leadership

SERC's first chairman was Chai Songyue 柴松岳, former governor of Zhejiang province. Chai had worked in the electricity industry for more than two decades prior to being promoted to the leadership of Zhejiang province in 1986. The fact that he had experience of the electricity sector but had no close ties with the industry made him the best candidate for the job in the eyes of the central leadership.[41] When Chai took office in 2003, he showed his determination to develop the market and strengthen regulation. Chai raised the critical point that state regulation should come together with the development of the market in order to prevent chaos. However, his appointment was by no means without its problems – Chai was 61 years old and people doubted that he would be able to accomplish much with only four years left until the mandatory retirement age of 65. The doubters were proved correct when Chai retired in January 2007. Although Chai had successfully enhanced SERC's authority and clarified its areas of responsibility, experiments in developing regional power markets were suspended and the price-setting struggles between SERC and the NDRC remained. These difficulties were left to his successor, You Quan 尤权, to resolve.

You was the deputy secretary general of the State Council before becoming the chairman of SERC. His appointment reflected the central leadership's expectations for the IRA. As an experienced high-level official in the central government, You has a better understanding of how to communicate and coordinate effectively with other ministries compared with his predecessor Chai, who had mainly

39 For example, SERC's local offices in Harbin are located in buildings owned by the Datang Group. Interview with enterprise manager, Henan, 3 July 2008.

40 It is a similar situation to the revolving-door phenomenon in the US and *amakudari* in Japan. However, in the case of China's power sector, the direction of movement is from industry to government, and these employees are not high-level managers. Interview with local-level official, Heilongjiang, 12 July 2009.

41 Bai and Yan 2005.

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worked at the local level.[42] During You's term, the liquidation of remaining power generation assets was completed, which marked an outright separation of power generation and network.[43] SERC made a significant contribution to the power reform agenda in the 11th Five-Year Plan by bringing in a focus on segregating core and auxiliary business. Despite these achievements, there was no progress in market development – there may have even been a regression. In 2008, You returned to the State Council as the executive deputy secretary general. It was reported that the Organization Department of the Chinese Communist Party (CCP) asked a vice-chairman of the NDRC to take up the position of head of SERC, but this candidate declined for unknown reasons.[44]

In May 2008, Wang Xudong 王旭东, the former minister of information industry and vice-minister of the newly organized Ministry of Industry and Information Technology (for only one month), was appointed chairman of SERC. Wang's appointment was problematic for three reasons. First, Wang was selected because of his rich experience in market regulation gained during his tenure at the Ministry of Information Industry.[45] However, to make an assumption that Wang would be a capable leader of an IRA according to his performance as a minister is questionable because the duties are very different. Second, Wang has no background in the power industry. Having been brought in as an outsider, Wang was expected to deal with the serious problem of powerful vested interests and to regulate independently. However, being an outsider would have also left him isolated from the power industry and the incumbent officials, and therefore unable to use the full force of his authority.[46] Third, Wang was already 62 years old when he took up the appointment and was due to retire in three years. This again raised doubts similar to those voiced about Chai about how dedicated Wang would be to the job. It came as no surprise when Wang retired in 2011 at the age of 65. According to the reports on electricity regulation issued by SERC in 2008, 2009 and 2010, during his three-year tenure, there had been more investigation and research undertaken than substantial and concrete advancement.[47] Reform implementation and development of the power market remained at a standstill.

Wu Xinxiong 吴新雄, former governor of Jiangxi, became SERC's fourth chairman in June 2011. Unlike his predecessors, Wu worked in local government for 28 years (18 years in Jiangsu and 10 years in Jiangxi) before moving to SERC and has no central government or power industry work experience.[48]

42 Wang, Qiang 2007.
43 These are two parts of the generation assets that were left to the State Grid Corporation in 2002.
44 Caijing.com.cn. 2008. "Dianjianhui zhuxi You Quan ren Guowuyuan changwu fumishuzhang" (Chairman of the SERC, You Quan, was appointed executive deputy secretary-general of the State Council), 27 March, http://www.caijing.com.cn/2008-03-27/100054231.html. Accessed 2 April 2012.
45 21cbh.com. 2008. "Wang Xudong jiebang dianjianhui" (Wang Xudong takes over the SERC), 6 May, http://www.21cbh.com/HTML/2008-5-6/HTML_2FTGPHT9A8F8.html. Accessed 18 July 2012.
46 Interview with university professor, Beijing, 8 July 2009.
47 Interview with research fellow, Beijing, 10 July 2009.
48 Finance.sina.com.cn. 2011. "Wu Xinxiong zhizhangxia de dianjianhui weilai" (The future of SERC under Wu Xinxiong), 3 June, http://finance.sina.com.cn/roll/20110603/01409940672.shtml. Accessed 8 June 2012.

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Furthermore, Wu has the same age issue as Chai and Wang and is expected to retire in 2014. To date, it is not clear how much substantial progress Wu has made to improve market development and power regulation.

Transitional nature

When the Chinese government instituted a new regulatory mechanism in the power sector, it aimed to establish an IRA that would not only function effectively but would also become a regulatory model for other industries. Nevertheless, faced with rising challenges in the energy sector such as soaring consumption, the negative environmental impact and poor coordination, China realized it was imperative to maintain energy security and began drafting an energy law in early 2006. In the meantime, a government think tank (the Development Research Center of the State Council) and the World Bank recommended in a research report that China set up a sector-wide regulatory body – a ministry – to encompass and oversee all industries in the energy sector.[49]

With the expectation that the MOE would be re-established, it was thought that SERC would be dismantled and its authority transferred to the new government body. However, surprisingly, the creation of the MOE did not form part of the administrative reform of 2008. Instead, the Chinese government set up the National Energy Commission (NEC) to oversee the entire energy sector. This is because it was deemed too complicated to integrate the relevant industries and the creation of a new ministry requires an infeasible number of staff. Thus, the central government decided to organize a high-level coordination unit first. The NEC was eventually instituted in January 2010 and directed by Premier Wen Jiabao 温家宝. It is, however, merely a coordination body and has no substantive power. It is possible that an energy super-ministry will be created when the differences between the relevant industries are greatly reduced.[50] Ultimately, it is envisioned that SERC will be dissolved.

The appointment of the current SERC chairman, Wu Xinxiong, also attests to SERC's transitional nature. Since Wu will retire in 2014, this personnel arrangement will ease the difficulty of accommodating SERC's senior staff if the MOE is created in the near future.[51]

In short, these endogenous flaws are major weaknesses of SERC. Although the central government has made great efforts in recent years to enable SERC to meet current demands, there are no signs that the problems outlined above will be resolved anytime soon. Moreover, these endogenous defects have deep roots

49 Berrah et al. 2007.

50 Money.163.com. 2012. "Xiaoxi cheng Zhongguo 2013 nian ni xinshe nengyuan bumen qudai Nengyuanju" (It is said that China will replace the National Energy Administration with the Ministry of Energy in 2013), 6 January, http://money.163.com/12/0106/14/7N3GDIT5002524SO.html. Accessed 13 August 2012.

51 Interview with university professor, Beijing, 20 July 2011.

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in exogenous factors, which impose greater constraints on SERC and lead to regulatory failure.

Exogenous Constraints

Against the background of administrative reform and government downsizing, the formation of SERC has inevitably involved power redistribution and resource reconfiguration and has suffered from political struggles between existing institutions. An IRA is, paradoxically, not autonomous but is instead embedded in a broader government structure. Organizational autonomy does not necessarily help prevent political intervention from the government, nor does it strengthen agency performance. The regulatory dilemma has causes that originate beyond the IRA itself. SERC's interactions with other government entities and regulated enterprises show the paradox SERC faces. A new regulatory system in the power sector should have been designed and formed before the SPCC was dismantled. Otherwise, the IRA is destined to become a figurehead. In fact, this statement describes the fundamental principle that a pre-existing, functioning state regulator is the key to reform success.[52] Unfortunately, this rule was generally ignored in the actual planning of China's power reform.

Fragmented authority

In launching electricity reform, the Chinese government aimed to achieve various policy goals, including the improvement of production efficiency, the expansion of infrastructure, the promotion of consumer welfare and the development of a viable market system. However, it is not possible to meet all these goals solely through the creation of an IRA, as it is necessary to involve other government bodies as well. This necessary engagement has not come about in a cooperative way but in a disjointed manner instead. While multiple government bodies have been delegated the authority to take charge of various duties, they have used the power to pursue their own interests, and their enforcement has turned into political intervention in the regulation process. While SERC is expected to push further power reform and promote market competition, it is in fact unable to avoid interference from other bureaucratic bodies. Although possessing formal independence, SERC cannot be a functional IRA if it has not been given complete authority. Regulatory power has been scattered among different government entities, with each sharing a similar administrative rank but having different and conflicting goals and interests. Therefore, the regulatory framework of the power sector is not a holistic, unitary scheme, but rather a fragmented and hybrid system.

Between 1998 and 2003, the Chinese government did not have a specific ministry in charge of electricity affairs but had instead adopted a multi-agency supervisory structure in which the SETC, SDPC, MOF and the Organization Department of

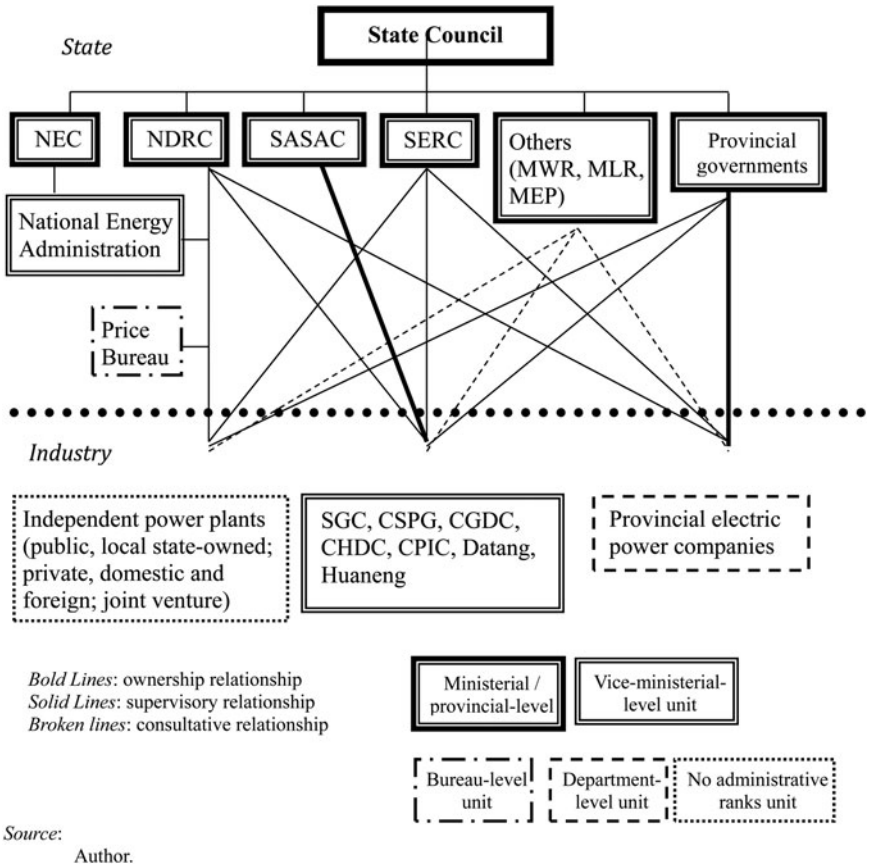
52 Shan 2002.

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the CCP all had respective regulatory duties. In addition, although the SPCC was a SOE, it also performed certain regulatory functions, such as electricity dispatch and technology development. This multi-agency structure was a temporary and expedient substitute since another round of reform was underway and an innovative regulatory system with an IRA was being drawn up. The central leadership planned to integrate the regulatory authorities and to achieve professional regulation in tandem with industrial restructuring. SERC, however, was created as an alternative to the SETC in the power industry rather than as a comprehensive, overarching state regulator. A fragmented regulatory structure remains (see Figure 2). In a multi-agency setting, SERC's credibility and capacity to act are seriously undermined when facing the electricity corporations. Accordingly, state regulation is beset by an intractable and hydra-headed bureaucracy.

In addition to SERC, the current regulatory structure is comprised of three other major agencies. The NDRC, a mighty policymaker, holds a wide range of administrative duties and inherits two exclusive rights regarding the supervision of electricity affairs as part of its institutional legacy – setting tariffs and

Figure 2: **Current Supervisory Structure of China's Electricity Industry**



Source:
Author.

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reviewing and approving construction projects. Moreover, the NDRC deliberately misapplies these regulatory tools in an effort to manage the national economy.[53] The NEC, a top-level coordinator, was delegated with drafting the nation's energy development strategy. It makes policy recommendations and enforces its suggestions. SASAC, the state assets watchdog, manages the ownership and operation of the central SOEs. Since the five leading power generation companies and two major grid corporations are all central SOEs under SASAC's purview, the conflicts of interest between SASAC and SERC are unavoidable. While SASAC seeks to maximize the corporations' revenue and promote an oligopolistic market, SERC devotes itself to developing a functional electricity market that ensures fair and robust competition.

Although some other ministries do not directly intervene in electricity affairs, they are involved in the regulatory process owing to their responsibilities. These include the Ministry of Environmental Protection for its environmental impact evaluations of power plant projects, the Ministry of Land Resources for its land-use reviews, and the Ministry of Water Resources for water-related affairs in hydropower issues. Moreover, because of the close relationship between power development and economic growth, local governments are very sensitive to electricity affairs. They are expected to play the role of gatekeeper in the regulatory process and to be in charge of preliminary reviews of price schemes and power plant projects. Nonetheless, because of their own economic considerations, local governments side with the power companies and do not follow central directives that are part of the supervisory framework. As a result, local governments help the power firms to lobby the central authority or to evade state monitoring, thereby gaining revenues in return. They become rent-seekers and a hindrance to state regulation.[54]

Although the Chinese government aims to allocate authority and clarify the supervisory structure in the power sector, the ambiguous designation of IRAs has complicated the system and seriously weakened the credibility of SERC. It is the interaction and contradiction among these institutions that leads to regulatory failure and reform stagnation. The problematic design of the supervisory mechanism has resulted in a regulatory paradox in the Chinese electricity industry: the creation of an IRA was supposed to improve regulatory effectiveness, but it failed to make regulation work. SERC is a nominal IRA that only has formal regulatory independence. Its practical regulatory independence is considerably less than the level anticipated in the reform plan.

Business involvement and indirect regulatory capture

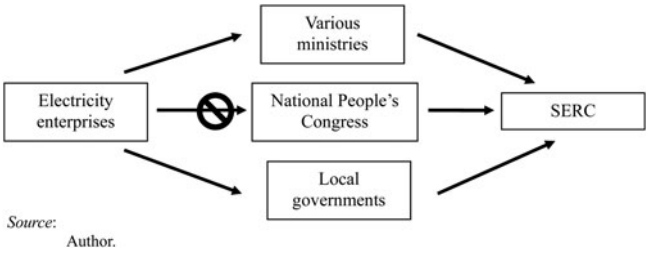
China's authoritarian regime means that its power enterprises have to take a non-traditional approach to lobbying: the power industry communicates with

53 For example, the NDRC has purposely kept the electricity prices low in order not to contribute to the increase in the consumer price index (CPI).

54 Cheng and Tsai 2009.

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Figure 3: **Business Lobbying and Regulatory Capture in China's Power Sector**



Source:
Author.

government institutions, instead of with elected politicians, in order to meddle in the policymaking process and procure regulatory favours. The electricity enterprises do not target the National People's Congress (NPC), but focus instead on the administrative bureaucracy because the NPC has not proved to be a fully functioning legislative body. NPC delegates have limited power and can only follow CCP guidelines. There is, therefore, no incentive for business groups to lobby NPC representatives to propose or pass preferential legislation; they focus instead on capturing SERC by communicating their concerns directly to the various levels of administration through different channels (see Figure 3).

Because of the fragmented supervisory system and discrepancies between the interests of various government agencies, the state-owned power corporations have greater power over government and are able to exploit their unique status to influence government decisions to their advantage.[55] The SGC has strengthened its monopoly by persuading the NDRC to establish an ultra-high voltage system, and has obstructed the further separation of the transmission and distribution sectors.[56] Moreover, an oligopoly is developing with the five leading state power generators (the Big Five) smothering a competitive market in its infancy. The Big Five have an exclusive channel through with to negotiate with policymakers. They have been striving to become dominant actors since SASAC laid down the policy goal of building up its best central SOEs into national champions and reducing the number of central SOEs. SASAC is expected to have only two or three conglomerates left; i.e. only the largest power groups will survive. In order to stay on top, the Big Five view each other as major rivals. They pursue ambitious expansion plans in defiance of SERC's efforts to create a functional market. When the policy goals of SASAC and SERC collided, the power companies undoubtedly backed SASAC, their bureaucratic supervisor, while at the same time lobbying SASAC to endorse their projects and negotiate with the state regulator on their behalf if necessary.

At the local level, bureaucratic supervisors shelter the power firms owned by provincial or city governments so these businesses can expand without having

55 Interview with university professor, Beijing, 20 May 2010.
56 He 2009.

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to abide by central regulations. They collude with local officials to turn a profit and evade state monitoring by the central government. In return, local governments earn revenues and secure a constant power supply for local use. The coexistence of decentralized local governments and local SOEs in a for-profit structure can at this point lead to rampant rent-seeking. The distinctive interaction between the Chinese state – at the central and local levels – and SOEs paints a different picture of lobbying to that in Western countries. In China, both central and local SOEs have been reinvigorated and are becoming the mightiest interest groups in the country, and SERC does not have the capacity to supervise these powerful public interest groups.

Moreover, while the Chinese state liberalizes the power generation sector and promotes competition, the independent power producers (IPPs) – including domestic, joint venture and foreign companies – are in an inferior position and exposed to a rigorous environment. Owing to unfair competition and a dysfunctional state regulator, the investment outlook for these companies is rather bleak. It is not a win-win scenario for the IPPs and the state power companies, but a zero-sum game in which the only private agents are overwhelmed by their ambitious public rivals. The measures taken by the Chinese state to break up the monopoly has not resulted in a growing market accompanied by a viable IRA as expected; rather they have led to the unanticipated outcomes of an oligopolistic market and regulatory capture.

Conclusion

Following the relaxation of its economic system and the introduction of a market mechanism, the Chinese state needs to readjust its relationship with industry; specifically, the state's role is expected to shift from that of sole controller to impartial referee. Regulatory development in the US and Britain has demonstrated the best practices of IRAs and provided China with rules and direction. However, we must "not overstate in theory the degree of independence that exists in practice" because the IRAs are not entirely free from political accountability in various forms such as legislative supervision and public hearings.[57] That is to say, complete independence for regulatory authorities is very hard to achieve. Finding a logical balancing point between agency autonomy and political accountability has proved to be a great challenge; representative democracies have sought to resolve such problems by strengthening the accountability structure.[58] Hence, organizational autonomy is a necessary, but not sufficient, condition for IRA performance.

In the case of SERC, it is clear that without the support of complementary institutions and powers such as a well-functioning legal system and a full scope of jurisdiction, the IRA remains exposed to regulatory capture from within

57 Majone 1999, 9.
58 Christensen and Lægreid 2007.

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(the central government) and outside (local governments and enterprises). Moreover, as power is one of the strategic sectors over which the Chinese state still wishes to maintain a tight control, the establishment of SERC is viewed as the climax but also, ironically, the turning point of China's regulatory development. This has important implications. The establishment of SERC demonstrates the Chinese state's determination to liberalize the power sector and promote market competition; however, owing to its compromised design, SERC runs the risk of being caught up in political struggles. Although its creation has involved the reshuffling of authority and resources, the new regulatory agency has suffered from problematic institutional design because the state has neither given it complete regulatory authority nor equipped it to be self-reliant. Moreover, the Chinese state will not fully relinquish its control over the power industry as it is one of the strategic sectors which closely ties in with the national economy. This is demonstrated by the fact that the NDRC and SASAC remain more powerful than SERC in electricity affairs. Ensuring a healthy national economy and enlarging state assets are clearly more important to the state than managing the power sector well. SERC is unable to function properly and, at best, maintains a merely nominal independence. SERC's formal autonomy is degraded further by China's distinct Party-state regime. That the Chinese state failed to incorporate the creation of IRAs into the reform scheme but presented IRAs as a response has foreshadowed SERC's failure since its inception. Faced with other government entities with partial regulatory power and gigantic state power enterprises, SERC has been unable to promote market development and ensure fair competition. The independent power generators have been forced out of the business and an oligopoly dominated by SOEs has emerged.

The creation and failure of SERC reveals the reality that a model for an autonomous regulator effective in the West will not successfully transfer to China because of different institutional constraints. In line with its unique economic regime, China's regulatory system illustrates a very different developmental path, and is moving in an unclear direction. Although the Chinese government is attempting to develop a market mechanism while maintaining a substantial state sector, it is not an easy task. Without granting regulatory agencies full discretion and rich resources, all its efforts will be in vain as China's SERC clearly proves.

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