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## PLAYING THE MARKET REFORM CARD: THE CHANGING PATTERNS OF POLITICAL STRUGGLE IN CHINA'S ELECTRIC POWER SECTOR

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Since its reform and opening, China has impressed the world with a relatively successful transition to a market economy. A number of sectors, however, are still struggling to operate according to market principles. Of these, the electric power sector stands out as an important case.<sup>1</sup> Since the 1980s, China has carried out an impressive array of reforms in the power sector, aiming to introduce competition, enhance industry efficiency and establish an “orderly and open electricity market”.<sup>2</sup> Reforms have diversified investment sources, separated power generation from transmission and created an independent regulator and an electricity exchange center. These policies seem to have demonstrated the central government’s determination to push forward fundamental changes. They have also been carried out in a sequence that followed the standard model in other countries.<sup>3</sup> The actual results of the reform, however, have been meager. The sector remains largely monopolistic, and the goal of introducing market competition is far from being realized. Many of the other targeted problems—such as electricity shortages, rampant corruption and substantial losses of state assets—have remained unsolved or have even worsened.

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<sup>1</sup> The expression “electric power sector” is used interchangeably with “power sector”. The article focuses on thermal power, which accounts for about 75 per cent of power generation in China in 2009.

<sup>2</sup> “Guowuyuan pizhun shishi dianli tizhi gaige fangan” (The State Council Passed the Power Sector Reform Plan), *Zhongguo nengyuan* (China Energy), No. 4 (2004), pp. 4-5.

<sup>3</sup> David Victor and Thomas Heller, “Introduction and Overview”, in David Victor and Thomas Heller (eds), *The Political Economy of Power Sector Reform: The Experiences of Five Major Developing Countries* (Cambridge: Cambridge University Press, 2007), p. 6.

Why, despite repeated efforts to reform the power sector, has China failed to reach its stated objective? This article draws attention to how the policy-making process at the central level has strongly affected the substance of reforms. It finds that the reform has been trapped in a partial equilibrium due to political struggles between two groups over three rounds of reforms since 1985. On one side are the reformers, bureaucrats who view market reform as the key to improving the sector. This group pushed through radical reforms to dismantle the sector and introduce market competition. Opposing them is the conservative group, composed of industrialists from the power sector and bureaucrats from a closely related state agency whose interests were compromised by the market reform. This group has sought to defend the monopoly position of the sector through various means. Both groups have particular bureaucratic organizations as institutional constituents and have relied on leader–follower patronage ties to reinforce group solidarity. Although bureaucratic agencies have been reorganized and new group leaders have emerged at different stages of reform, the composition of each group has displayed considerable stability, and the cleavage between the two sides has remained salient throughout the reform process.

A crucial cause of the stagnation lies in the way in which, paradoxically, market reform has empowered the conservative group. As the market economy gained increasing domestic and international legitimacy, conservatives switched their strategy from directly opposing reform to “playing the market reform card” by openly advocating the market approach and competing for reform opportunities. Market reform thus became a political weapon used by both groups. However, conservatives appropriated reform discourses and rationales in proposing a number of seemingly pro-reform policies, and then manipulated these to realize their anti-reform agenda. This delayed the reformers’ attempts to introduce competition, and re-consolidated the monopoly of the sector.

Two features of the reform enabled and sustained the conservatives’ adoption of a new strategy without changing their conservative stance substantially. The first was the ambiguity and complexity of the concepts “market” and “market reform” in the power sector. This provided the conservatives with ample maneuvering room to formulate a series of seemingly “market friendly” measures which could be utilized to delay the reform process. As this article will demonstrate, reform measures such as corporatization of the sector and establishing an electricity exchange center have been used by conservatives as weapons to re-consolidate their monopolistic control. The second important factor has been the sector’s direct involvement in the political process. The central governing body of the power sector, both before and after its corporatization, is regarded as a quasi-government agency with the same rank in the policy-making process as central state commissions. This equips the potential loser from reform with significant bargaining leverage either to battle against or ally with other state agencies, and to seize the policy initiative from the reformist group.

The change in the conservatives’ strategy suggests a new pattern of political struggle in China’s market reform. Both reformists and conservatives started to play

the market reform card in the policy-making game from the early 1990s. By examining three rounds of reforms, this article not only reveals the complicated politics behind the market reform process but also brings a dynamic element into the study of central policy-making in China. It sheds light on the ways in which political actors can respond to institutional change by shifting their bargaining strategies, which in turn affects the pace of such changes. Contrary to the resounding call from experts and society for market reforms to be extended and the monopoly of the power sector to be further broken, simply proposing more radical reform strategies may provide additional opportunities for conservatives to delay the reform process. As a result, it might take some time for China to break out of the current dilemma and to implement new reform measures.

### **China's Power Sector Reform: An Overview**

From 1949 to the mid-1980s, China's power sector was a vertically integrated state-owned monopoly strictly controlled by the central planning system. The State Planning Commission (SPC) played an "all-around role" in predicting demand for power, allocating annual production quotas and determining the power prices.<sup>4</sup> No market demand and supply relationship existed in the industry, and all enterprises were placed under the supervision of the Ministry of Electric Power (MEP). The MEP thus assumed the responsibilities of both a top-level enterprise and a regulator of the local power bureaus. It coordinated with the SPC and the State Economic Commission (SEC) in carrying out detailed plans.<sup>5</sup> While most power plants were managed jointly by the MEP and the provincial power bureaus, the industry remained vertically integrated.

In the mid-1980s, China started to introduce market reform in the power sector, and since then three major rounds of reforms have been carried out. Each round highlighted a different theme: 1) decentralizing the investment authority from the center to the localities and diversifying investment sources to include non-government investors; 2) transforming the MEP and local power bureaus into power companies so as to separate government administration from business operations; 3) disaggregating the functions of the transformed power companies into generation, transmission and distribution so as to introduce competition in each market and establish an independent regulator and an electricity exchange center.

The first round of reform was launched in response to the severe shortage of electricity in the mid-1980s. During this period, rapid economic growth led to surging demand for electricity, yet the annual growth rate of electricity production

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<sup>4</sup> Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China: Leaders, Structures, and Processes* (Princeton: Princeton University Press, 1988), p. 64; Yi-chong Xu, *Powering China: Reforming the Electric Power Industry in China* (Aldershot: Ashgate Dartmouth, 2002).

<sup>5</sup> Yi-chong Xu, "A Powerhouse Reform: Conversion from the Ministry of Electric Power to the State Power Corporation of China", *Australian Journal of Political Science*, Vol. 36, No. 1 (2001), p. 136.

was only half of that of industrial output growth. In 1986, the shortfall of electricity reached 17 per cent of annual consumption.<sup>6</sup> In the mid-1980s, the central government decided to decentralize the investment authority and to encourage local governments to finance their own power generation capacity through multiple channels of investment. The new generation projects were entitled to charge different electricity rates and maintain part of the profits. The reform gave rise to a group of semi-independent power producers (IPPs), funded by local governments, large enterprises and foreign companies; this resulted in the diversification of investment sources and contributed to the increase of power generation capacity.<sup>7</sup>

The second round of reform started in the 1990s, when domestic pro-reform forces returned and various countries stampeded toward the neoliberal electricity reforms promoted by the World Bank, the IMF and the Asian Development Bank (ADB).<sup>8</sup> This round revolved around corporatization, which means separating government functions from the production activity of enterprises and transforming enterprises into independent economic entities accountable for their own profits and performance. In 1997, the State Power Corporation of China (SPCC) was formally created as a state-owned utility corporation. It took over all the assets and business functions of the MEP, and transferred the latter's regulatory and administrative functions to the State Economic and Trade Commission (SETC). Following the reorganization, the SPCC and the SETC supervised the continuing corporatization of regional and provincial power bureaus and launched a multimillion dollar project of construction and improvement of transmission and distribution (T&D) networks. Meanwhile, in 1999, the SPCC selected six provinces in which to experiment with disaggregating the power sector and introducing market competition in power generation.

The third round of reform was launched in 2002, when the SPCC was broken down into five groups devoted to power generation (Huaneng 华能, Datang 大唐, Huadian 华电, Guodian 国电 and the China Power Investment Group [*Zhongguo dianli touzi jituan* 中国电力投资集团]), two power-grid companies (the State Grid Corporation of China [*Guojia dianwang* 国家电网], or SG, and China Southern Power Grid [*Zhongguo nanfang dianwang* 中国南方电网]), and four auxiliary companies.

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<sup>6</sup> It was estimated that, for every percentage of growth in national industrial output value, electricity output had to increase by 1.2 per cent. See Yi-chong Xu, *Electricity Reform in China, India and Russia: The World Bank Template and the Politics of Power* (Cheltenham: Edward Elgar, 2004), p. 108. On the electricity shortage, see Chi Zhang and Thomas Heller, "Reform of the Chinese Electric Power Market: Economics and Institutions", in David Victor and Thomas Heller (eds), *The Political Economy of Power Sector Reform*, p. 93. Also see Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China*, p. 97.

<sup>7</sup> Chi Zhang and Thomas Heller, "Reform of the Chinese Electric Power Market", pp. 93-94; Yi-chong Xu, "A Powerhouse Reform", pp. 136-37.

<sup>8</sup> James Williams and Navroz Dubash, "Asian Electricity Reform in Historical Perspective", *Pacific Affairs*, Vol. 77, No. 3 (Fall 2004), p. 422.

The SG, formerly the SPCC, took over most T&D assets from the SPCC, while the Southern Power Grid became a body in charge of the operation of grids in Guangxi, Yunnan and Hainan. Meanwhile, at the suggestion of the World Bank, in the same year the State Council created the State Electricity Regulatory Commission (SERC) as an independent regulator for the sector. Most recently, after the State Council issued its “Suggestions on Deepening the Reform of the Electricity Sector in the Eleventh Five-Year Plan” in 2006, the SG formally established the electricity exchange center as a locus for electricity market competition.

At first glance, each round of reform seems to have been supported by a logic which facilitated marketization. Transforming a central planning system requires breaking the domination of the state and bringing in other types of actors; the operation of the electricity market requires basic economic actors such as power companies; and competition is based on the existence of multiple companies rather than an integrated monopoly in the market. However, as some critics point out, these reform measures ultimately failed to introduce market competition, and even ran against their purpose by eventually strengthening the monopoly of the sector.<sup>9</sup> Industrial efficiency has hardly been enhanced; it was reported in 2005 that 1,280 enterprises in the industry were making a loss amounting to 12.7 billion yuan, with thermal power plants’ loss increasing by 10.1 per cent.<sup>10</sup> Moreover, power shortages since 2000 have been the most severe of the past two decades, causing an estimated 1,000-billion-yuan loss in industrial output between 2001 and 2005.<sup>11</sup> Finally, corruption and the illegal use of state assets remain rampant both at the central and local levels of the power sector.<sup>12</sup>

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<sup>9</sup> Liu Jipeng, “Diangai weihe lu bu chengong” (Why Has Power Sector Reform Repeatedly Failed?), *Zhonghua gongshang shibao* (China Industry and Commerce), 19 August 2005; Wanguo Xu, “Dianli gaige jiben bu chengong” (The Power Sector Reform Was Basically a Failure), *Nanfang ribao* (Southern Daily), 18 December 2005; Chi Zhang and Thomas Heller, “Reform of the Chinese Electric Power Market”, p. 104.

<sup>10</sup> National Development and Reform Commission, “Dianli hangye 2005 nian yuxing fenxi ji 2006 nian qushi yuce” (The Analysis of the Electric Power Sector Performance in 2005 and the Prediction for that of 2006), 20 April 2006, at <http://finance.people.com.cn/GB/4315860.html>, last accessed 12 May 2007; Xiaoying Cheng, “Huodian jingying zhuangkuang ehua” (The Worsened Situation of Thermal Power), *Di yi caijing ribao* (China Business News), 26 June 2006; Yiqiang Sha and Ping Liu, “Fadian qiye: xiaoyi miju” (Power Generation Enterprises: Efficiency Confusion?), *Zhongguo dianli qiye guanli* (China Power Enterprise Management), No. 6 (2006), pp. 4-7.

<sup>11</sup> “Quanguo dianhuang zaocheng canzhong sunshi” (Nationwide Power Shortages Caused Severe Losses), *Nanfang jingji cankao* (Southern Economic Reference), 15 December 2005; Yingbo Shao, “Weihe 19 sheng fasheng dianhuang” (Why Have Electricity Shortages Occurred in 19 Provinces?), *Jingji guancha* (Economic Observer), 13 April 2006. In 2005, 24 provinces experienced power cuts. Among them Zhejiang and Guangdong experienced most severe shortages, leading to losses in GDP of 100 and 50 billion yuan respectively.

<sup>12</sup> According to the National Audit Office, SPCC was involved in the illegal use of 21.1 billion yuan, including a 4.5-billion-yuan loss of state assets and another 1.2 billion yuan of

In response to the results of the reform, there emerged from experts, scholars and bureaucrats a strong call to push forward more thorough market reform measures and to breakdown the sector's monopolistic structure further. They argued that only market competition could bring about efficiency, and only true market reform could be the final antidote to the unsolved problems.<sup>13</sup> While these arguments seem reasonable, they overly idealized the role of the market and largely ignored the politics behind the reform process.

### The New Politics of Market Reform in the Power Sector

Economic reforms in post-Mao China have always been fraught with tension at the central level. The struggles over different reform paths since the late 1970s have been studied intensively by scholars of Chinese elite politics. Their works proposed several competing models for understanding top-level politics.<sup>14</sup> Andrew Nathan's factional model depicts central-level politics as a balance of power between patron-client ties among central leaders. Tang Tsou's theory of informal politics views politics as a struggle resulting in clear-cut victories of one informal group over the other. Kenneth Lieberthal and Michel Oksenberg's model of fragmented authoritarianism highlights the bureaucratic conflicts and incoherent policy-making caused by different chains of authority in central state agencies. Following these classic models, Joseph Fewsmith and Richard Baum provide fine-grained analyses of top-level political and economic debates over the market reforms, while Susan Shirk reveals the "political logic" of succession competition and consensus-building in the economic reform process.<sup>15</sup>

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top-level corruption. See Bin Qi, "Yuan guodian gongsi dao zhi guo zi liuchan 45 yi" (SPCC Caused a 4.5 Billion Yuan Loss of State Assets), *Zhongguo qingnian bao* (China Youth), 24 June 2004. For local-level corruption, see Tun-jen Cheng and Chung-min Tsai, "Powering Rent Seeking in the Electricity Industry", in Tak-Wing Ngo and Yongping Wu (eds), *Rent Seeking in China* (Abingdon: Routledge, 2009), pp. 117-44.

<sup>13</sup> Bingling Wang, "Zhang Guobao: bixu jiakuai dianli gaige bufa" (Zhang Guobao: We Must Accelerate the Pace of the Power Sector Reform), *Xinjing bao* (Xingjing News), 15 April 2004; Yumin Wang, "Rang shichang zhi shou tuidong dianli gaige" (Let the Hand of the Market Push for the Power Sector Reform), *Zhongguo dianli bao* (China Electric Power News), 10 March 2005; Yu Peng, "Yang Mingzhou: dianli tizhi gaige buke nizhuan" (Yang Mingzhou: The Power Sector Reform Is Irreversible), *Beijing chenbao* (Beijing Morning Post), 20 December 2005; Xiaoqin Ruan, "Dianjianhui fu zhuxi: bixu jin yibu tuijin dianli shichanghua gaige" (The Vice President of SERC: The Market Reform of the Power Sector Must Be Further Pushed Forward), *Shanghai zhengquan* (Shanghai Securities), 20 September 2006.

<sup>14</sup> Harry Harding, "Competing Models of the Chinese Communist Policy Process: Toward a Sorting and Evaluation", *Issues and Studies*, Vol. 20, No. 2 (February 1984), pp. 13-36.

<sup>15</sup> Andrew Nathan, "A Factionalism Model for CCP Politics", *China Quarterly*, No. 53 (1973), pp. 33-66; Tang Tsou, *Culture Revolution and Post-Mao Reforms: A Historical Perspective* (Chicago: University of Chicago Press, 1986); Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China*; Joseph Fewsmith, *Dilemmas of Reform in China: Political Conflict and Economic Debate* (Armonk: M. E. Sharpe, 1994); Richard Baum, *Burying Mao: Chinese Politics in the Age of Deng Xiaoping* (Princeton: Princeton

In all these studies, the battles that took place in the 1970s and 1980s over the issue of market reform largely revolved around whether market or planning should be the main feature of the economic system. Since the early 1990s, the market has been established as the dominant mechanism. Political struggles and jockeying between reformists and conservatives, however, have remained salient, but they have taken on new characteristics which were not addressed adequately in previous studies.

The institutional basis of the political struggles has come to reflect a hybrid pattern of the bureaucratic and the factional model.<sup>16</sup> On the one hand, bureaucratic organizations have been the major constituents for both the reformist and conservative groups, and the cleavage between the two camps has remained relatively clear and stable throughout the three rounds of reform. The reformist side is mainly composed of pro-reform agencies, such as the SEC and the State Development and Planning Commission (SDPC), which have consistently pushed for radical reform measures. Sitting on the conservative side are the governing body of the sector at the state level, joined by other influential state agencies such as the SPC, SETC and the National Development and Reform Commission (NDRC). The composition of the two groups also shows considerable organizational continuity over time. While the bureaucratic agencies may be disbanded, renamed or reorganized, the position of a particular organization remains the same unless there is significant reshuffling of personnel (such as from SPC to SDPC).

On the other hand, both groups have displayed factional elements in their struggles as, at different stages, they have gained firm support from individual leaders such as Zhao Ziyang, Zhu Rongji, Li Peng and Gao Yan. There were patronage ties in both groups, such as between Li Peng and Gao Yan and Zou Jiahua, or between Zhu Rongji and Zeng Peiyan. This factionalism does not contradict the bureaucratic model, and in fact is reinforced by it. The protégé of a central leader is often also the head of a bureaucratic agency, which provides the faction with further organizational support.<sup>17</sup> This hybrid form of political struggle in the power sector reflects the complex changes of organizations at the central level since the 1990s. With a higher level of political institutionalization and a diminishing role for individual charisma, the bureaucratic model has played an increasingly important role in decision-making.<sup>18</sup> Yet, at the same time, building factions remains an important tactic in political struggles at the top level.<sup>19</sup>

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University Press, 1996); Susan Shirk, *The Political Logic of Economic Reform in China* (Berkeley: University of California Press, 1993). See also the symposium, "The Nature of Chinese Politics", *The China Journal*, No. 34 (July 1995), pp. 1-205.

<sup>16</sup> Due to this hybrid form, this article uses the term "groups" rather than "factions" when referring to the reformist and conservative camps.

<sup>17</sup> Examples include Zou Jiahua, director of SPC, Zeng Peiyan, director of the SDPC, and Gao Yan, general manager of the SPCC.

<sup>18</sup> Harry Harding, "Competing Models", p. 31.

<sup>19</sup> For a more recent contribution on factional politics in elite politics, see Victor Shih, *Factions and Finance in China: Elite Conflict and Inflation* (New York: Cambridge University Press, 2008).

More importantly, previous studies of elite politics have also failed to devote adequate attention to the dynamics of political struggle, that is, how changes in institutional contexts over time affect the strategies which actors choose. A salient characteristic of struggles over power sector reform has been the conservatives' shift from directly opposing the reform to "playing the market reform card". During the late 1970s and early 1980s, conservatives led by Chen Yun seized every chance to argue against, criticize and attack the reform coalition led by Deng Xiaoping so as to delegitimize the role of market forces and to defend the central role of the planning system. The context was largely viewed as one "to win all or lose all".<sup>20</sup> "Market" and "planning" were ideological tags used by the two groups to distinguish themselves, as well as the objectives that they stood for. However, by the second and third rounds, "market reform" had become a weapon used by both groups to strengthen political power and achieve control over the policy-making process.<sup>21</sup>

This change in the pattern of political struggle has taken place as market forces have gained increasing legitimacy both domestically and internationally. Domestically, Deng's Southern Tour in 1992 revitalized pro-market forces both in practice and in the central state's discourse. Internationally, many developing countries have experimented with neoliberal electricity reform over the past one-and-a-half decades. Under such circumstances, conservatives in the power sector reform switched their strategy. Instead of simply blocking reform initiatives, they jumped at reform opportunities, controlled reform initiatives and launched their own changes under the banner of "market reform". Now, one can hardly distinguish between reformists and conservatives through their official discourses and announcements without carefully investigating the detailed reform measures that each group has proposed and carried out.

What enabled conservatives to join in the game of market reform without compromising their interests and changing their anti-reform stance? First, the ambiguity involved in introducing markets to the power sector has aided the conservatives. Unlike markets for commercial products that can easily be stored, transported and sold among numerous producers and buyers, electricity "markets" are extremely complex and vague. The measures required to achieve market competition in the sector remain very controversial among experts, both in China and abroad. Like most developing countries, China borrowed a reform model adopted in England and Wales in 1990, which involved two main steps: dismantling the sector into multiple parts, and introducing market competition into each part. Ideally, this means that multiple power generators

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<sup>20</sup> Joseph Fewsmith, *Elite Politics in Contemporary China* (Armonk: M. E. Sharpe, 2001), pp. 99-100.

<sup>21</sup> A discussion of the formation and development of group interests is beyond the scope of this article. State agencies such as the SPC, SEC, SETC, SDPC and NDRC all have broad mandates in regulating economic and industrial affairs. Power sector reform is only one issue which these agencies manage. Explaining the interests of each group thus requires going beyond power sector reform. However, the reform process suggests that power and control over policies have become far more important than ideologies, with the latter largely becoming the tools for the former.

compete with one another to trade power with distributors by bidding in a common pool or through contracts.<sup>22</sup> In practice, however, the questions of how to dismantle the sector and where to introduce market competition are subject to extraordinary debate. Should the sector be broken up into individual companies, each responsible for their own generation and T&D, or should it be unbundled into multiple generators, transmitters and distributors? Should market competition be introduced simultaneously into every part of the sector, or should it be introduced into certain parts first? How should market relations be coordinated between sectors, and how should prices be set? These unresolved questions provide conservatives with considerable space to maneuver in designing and implementing reform measures.

For example, conservatives chose to support the vertical dismantling of generation from transmission and distribution, rather than the horizontal division of the sector into different regional corporations. The plan allowed the conservatives to divert emphasis from introducing competition into the electricity-generation market and focus only on the expansion of cross-provincial transmission networks. This eventually consolidated the conservatives' monopoly over transmission in the country. Another example is SG's seemingly market-friendly initiative to create an electricity exchange center, but with headquarters and sub-level divisions all located in the power grid companies. This measure in effect strengthened the domination of the SG over the electricity producers in the price-setting process, and blocked further market competition. Despite the possibility of large-scale changes at the beginning of each round of reform, conservatives were always able to find maneuvering space without overtly violating the norm of pursuing market reform.

Another factor contributing directly to the success of the conservatives' strategy lies in the sector's direct influence on the policy-making process. In China, most industries have little impact over reform policies made at central level. Although firms since the mid-1990s have begun to voice policy preferences indirectly through trade associations or to engage in direct lobbying of regulators, their influence over central policy-making remains limited.<sup>23</sup> In contrast, the power sector is both a vast industry, crucial to the whole national economy, and a political base for China's ministries and bureaucracies. It has therefore been historically important in central policy-making. Even after the MEP was corporatized in 1997, the sector acted much like a quasi-ministry with almost the same rank as central state commissions. The general manager of the SPCC or SG has the same ministerial-level ranking as the chairman of SDPC or SERC. This special status provided the industry, the supposed target of reform and the potential loser from the breaking down of its monopoly, with incomparable bargaining leverage over the policy-making process. The control over data, resources and technical knowledge pertaining to the industry

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<sup>22</sup> David Victor and Thomas Heller, "Introduction", p. 5.

<sup>23</sup> Scott Kennedy, *The Business of Lobbying in China* (Cambridge MA: Harvard University Press, 2005); Guosheng Deng and Scott Kennedy, "Big Business and Industry Association Lobbying in China: The Paradox of Contrasting Styles", *The China Journal*, No. 63 (January 2010), pp. 101-25.

further helped their fight for a leading position in the reform process. Bolstered by the maneuvering space created by market reform, the power sector and its conservative allies were in a good position to play the market reform game against their reformist adversaries without harming their own vested interests.

### **The Changing Pattern of Political Struggle in Three Rounds of Reform**

Reformists and conservatives came into conflict in all three rounds of the power sector reform. The conflicts originating from tensions between the MEP, the SPC and the SEC in the 1980s played out further in political battles between the SPCC, the SETC and the SDPC in the 1990s, and then extended to the current competition among the SG, the generation groups, the NDRC and the SERC (see Table 1). The first round of reform reflected the traditional political battles between pro-market and anti-market groups, during which the reformists' initiatives were openly criticized and attacked by the conservatives. Starting from the second round, however, a new pattern of political struggle emerged when conservatives switched their strategy. This pattern has been reinforced in the third round, when the conservative side designed and implemented aggressive reform measures unexpected by the reformists.

#### ***The First Round: Fighting Battles over Market Reform***

The first round of reform largely reflected the traditional political struggles between reformists backed by Deng Xiaoping and conservatives backed by Chen Yun in the early and mid-1980s. On the reformist side, Zhao Ziyang became the pivotal figure of the reformist camp and boldly pushed ahead a series of market reforms in urban industries. The main state agency supporting Zhao's initiative was the SEC. As a high-level commission responsible for coordinating and improving enterprise management, the SEC had always been an enthusiastic advocate for enterprise autonomy and market-oriented reforms.<sup>24</sup> While conservatives launched several assaults on reformists' policies during this period, both the decisions taken at central-level conferences and the support of the mass media indicate that reformists gained the upper hand. In particular, the Third Plenary Session of the Twelfth Central Committee in 1984 adopted the "Decision on Economic Structural Reform", which marked the turning point towards building a socialist commodity economy. The session called for a reduction in the scope of central planning and an expansion of operational autonomy and profit incentives for enterprises. It also called for delegation of responsibilities from the central government to provincial and local governments.<sup>25</sup>

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<sup>24</sup> Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China*, p. 76.

<sup>25</sup> Joseph Fewsmith, *Dilemmas of Reform*, p. 133.

**Table 1: Struggles in the Three Rounds of Power Sector Reform\***

Time Period	Reformist Side		Conservative Side	
	Organizations	Major Reform Measures	Organizations	Major Reform Measures
First Round (1985–93)	SEC	Decentralize investment authority and diversify investment channels to include local governments, enterprises and foreign companies (1985)	MEP; SPC	Re-centralize investment authority and re-impose central planning (1989)
Second Round (1997–2002)	SDPC	Separate government administration from business operation and corporatize the MEP into the SPCC (1997); push for separation of generation and distribution from transmission (2000)	SPCC; SETC	Convert provincial power bureaus and regional power groups to subsidiaries of SPCC (1998–2000); expand cross-provincial T&D networks (1998); experiment with market competition in six provinces (1999)
Third Round (2002–Present)	NDRC, SERC (since 2005), five generation groups	Dismantle the SPCC into five generation groups, two power grids and four auxiliary companies (2002); establish the SERC as a regulator (2002)	SG, SERC (before 2005)	Build high-voltage transmission network (2005); create an electricity exchange center (2006)

\* MEP = Ministry of Electric Power; NDRC = National Development and Reform Commission; SDPC = State Development and Planning Commission; SEC = State Economic Commission; SERC = State Electricity Regulatory Commission; SETC = State Economic and Trade Commission; SG = State Grid; SPC = State Planning Commission; SPCC = State Power Corporation of China

It was within this favorable pro-reform and pro-local-initiative context that reformists launched the first round of power sector reform to encourage diversified investment at local levels. In 1985, in order to broaden sources of financing and allow local governments and large enterprises to invest in power project constructions, the State Council issued the policy of “who invests, who uses the electricity, and who benefits” (*shei touzi, shei yongdian, shei shouyi* 谁投资, 谁用电, 谁受益) and the Provisional Regulation on Encouraging Fund-raising for Power Construction and Allowing Multiple Electricity Prices (*guanyu guli jizi bandian, shixing duozhong dianjia de*

*zanshi guiding* 关于鼓励集资办电, 实行多种电价的暂时规定).<sup>26</sup> While the reform was officially proposed by the MEP in 1984 as a means to alleviate the mounting power shortages, the real supporter behind the scenes for the adoption of the reform was the reformist group. The group was led by the SEC, which had significant influence over power policy, and played a key role in introducing pricing and managerial reforms into the sector at local levels.<sup>27</sup> Since new local power plants did not enjoy the benefits of plants built by the central government, such as cheaper fuel supplies, the SEC pushed for the introduction of a special dual-track pricing system into the industry. New plants established after 1985 were entitled to charge different tariffs based on actual costs. They were also allowed an accelerated capital repayment schedule and were granted greater control over labor and wages. Meanwhile, provincial governments gained the authority to approve generation projects smaller than 50 MW (US\$30 million), and were allowed to collect an additional 0.02 yuan per kWh for developing and improving T&D capacity and building power plants.<sup>28</sup>

During this period, local governments, large enterprises and foreign companies actively engaged in building generation facilities, creating a group of semi-IPPs in the form of joint ventures or with shares listed on the stock exchange. Examples include the Longkou Power Plant in Shandong Province, Huaneng Enterprise Group, the Yantan Power Station in Guangxi Province and the Ertan Power Station in Sichuan Province.<sup>29</sup> The reform lowered entry barriers for investors and attracted a variety of new sources of capital, reducing the exclusive reliance on central budgetary allocations. The level of investment from the central government decreased from 78 per cent in 1985 to 52 per cent in 1988. In the same period, power generation capacity grew at an average of 5,000 MW, or 7 per cent per year, with about 40 per cent of generation capacity financed by new sources of capital.<sup>30</sup>

The reformists and the SEC aroused increasing opposition from conservatives in the MEP and the SPC, whose power was on the rise from the mid- to late-1980s. Li Peng, a Soviet-trained electric engineer who had been working for the sector since 1946, maintained control of the sector as Minister of Electric Power before his promotion to premier in 1988.<sup>31</sup> He was widely regarded as a cautious conservative who viewed central planning as of “primary importance” and did not support the view

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<sup>26</sup> “Zhongguo dianli gongye de xiandaihua licheng” (The History of the Modernization of China Electric Power Industry), at [http://www.china.com.cn/news/zhuanti/09gyh/2009-05/09/content\\_17749285.htm](http://www.china.com.cn/news/zhuanti/09gyh/2009-05/09/content_17749285.htm), last accessed 1 March 2010.

<sup>27</sup> Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China*, pp. 75-78.

<sup>28</sup> Chi Zhang and Thomas Heller, “Reform of the Chinese Electric Power Market”, pp. 93-96.

<sup>29</sup> They were not classical IPPs, since they could not make entirely independent decisions and were affiliated with central or local governments. Nevertheless, they were seen as more autonomous than previous plants, as they needed to be responsible to their investors.

<sup>30</sup> Yingzhong Lu, *Fueling One Billion: An Insider's Story of Chinese Energy Policy Development* (Washington: Washington Institute Press, 1993), p. 53.

<sup>31</sup> Kenneth Lieberthal and Michel Oksenberg, *Policy Making in China*, p. 56.

that market reform would improve the efficiency of the power sector.<sup>32</sup> Li gained support not only from his own MEP but also, more importantly, from the SPC, the central planning body and the most powerful institution in the Chinese economic system at the time. Headed by another well-known conservative, Yao Yilin, the SPC sought to defend the authority of the plan and often clashed with the interests of the pro-reform SEC over economic and energy policies.<sup>33</sup> From the mid-to-late 1980s, the conservatives fought strenuously to recentralize investment authority and to re-impose central planning on the power sector.

The best opportunity for conservatives to fight back occurred during the overheating and eventual meltdown of China's economy in the late 1980s. With inflation reaching 18.5 per cent, a rising velocity of hot money and overinvestment in capital construction, the Chinese economy spun out of control in 1987 and 1988.<sup>34</sup> Similar problems occurred in the power sector. The opening of various investment channels at localities led to the proliferation of small thermal power plants, which were easy to approve and required little capital and a short construction time. However, these plants were less efficient and caused more environmental pollution and energy waste than the large ones. As of 1987, 86 per cent of the nation's power generation was produced by plants smaller than 100 MW.<sup>35</sup> Moreover, as in other industries, the increase of local governments' control over investment resources led to their growing autonomy from the central government and diminished the role of the MEP.<sup>36</sup>

These problems provided good reasons for conservatives to criticize reformist policies and to advocate recentralization of the economic authority. The SPC and the MEP claimed that reforms of the power sector had led inefficient small firms to compete with large and medium-sized plants for scarce resources, and they blamed reformists for delegating too much authority to localities.<sup>37</sup> In 1988, with Li's rise to the position of premier and Zhao's loss of Deng's support at the Beidaihe meeting, the conservatives increasingly gained the upper hand. The purge of Zhao as the scapegoat for the 1989 Tiananmen movement heralded the final victory of the conservatives. The SEC was broken up into a set of bureaus under the SPC. The function and power of the SPC was expanded and strengthened, with Li's close ally Zou Jiahua appointed as its chair. As reformists lost support from both the highest-ranking bureaucracy in the group and the central leader of their faction, reforms in the power sector stalled, together with other industrial reforms, and the sector was largely

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<sup>32</sup> Yi-chong Xu, *Electricity Reform*, p. 119.

<sup>33</sup> Susan Shirk, *The Political Logic of China's Economic Reform*, p. 95.

<sup>34</sup> Athar Hussain and Nicholas Stern, "Effective Demand, Enterprise Reforms and Public Finance in China", *Economic Policy*, Vol. 6, No. 12 (April 1991), pp. 141-86.

<sup>35</sup> Allen Blackman and Xun Wu, "Foreign Direct Investment in China's Power Sector: Trends, Benefits and Barriers", *Energy Policy*, Vol. 27, No. 12 (November 1999), p. 698.

<sup>36</sup> Laura Dodge, "The Political Effects of Ideas and Markets on China's Economic Reforms: The Case of Electric Power", PhD dissertation, University of California at Santa Barbara (2003), p. 97.

<sup>37</sup> Yi-chong Xu, *Powering China*, p. 90.

restored to the previous central planning system. The first round of reform was thus characterized by traditional clear-cut struggles between reformists and conservatives.

### ***The Second Round: Seizing Reform Opportunities***

Although China was still drifting between the central planning and the market economy during the first round of the reform, the situation changed decisively during the early 1990s. Domestically, Deng's Southern Tour in 1992 revitalized pro-market forces and set a new course for China's economic development. The Fourteenth Party Congress, which marked China's historical shift from a *socialist commodity economy* to a *socialist market economy*, legitimized the abolition of central planning in favor of regulated market competition and called for the separation of government functions from business operations. By the mid-1990s, it became evident to conservatives that continuing to use planning as their main weapon would mean fighting a losing battle. Worried about their diminished political prospects, conservative leaders like Li Peng, Jiang Zemin and Zou Jiahua jumped on the bandwagon of market reform and started openly to endorse the productivity and efficiency brought by market competition.<sup>38</sup>

Internationally, a wave of neoliberal reforms in power sectors was sweeping developing countries. Due to governments' declining ability to finance generation capacity, countries such as India, Thailand and South Korea all changed the sector's vertical organization and experimented with the market reforms promoted or compelled by the World Bank, IMF and ADB. Although China's power sector was able to exercise greater latitude *vis-à-vis* these organizations, there has nonetheless been growing involvement of them in the reform process.<sup>39</sup>

The second round of reform was thus launched in a vastly different domestic and international context. In 1993, the SEC became the most important economic policy body and was headed by Zhu Rongji, a tough reformer known as China's economic "czar". Viewing the SOE problem as a priority, reformists in the State Council pushed forward the separation of government functions from business operations and the restructuring of the power industry. To specify reform objectives and plans, a workshop on "Strategic Options for Power Sector Reform" was held jointly by China and the Institutional Development Fund of the World Bank in 1993, with experts from six nations. This was followed by a series of seminars in Beijing, Xi'an and Huangshan, meant to facilitate dialogue between China, the World Bank and foreign experts. Meanwhile, various independent studies were carried out by the World Bank, the ADB and other international consultants to explore regulatory and legal frameworks for the power sector. These activities helped to formulate the primary blueprint of the second round of reform.<sup>40</sup>

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<sup>38</sup> Richard Baum, *Burying Mao*, pp. 351-52.

<sup>39</sup> Emily Yeh and Joanna Lewis, "State Power and the Logic of Reform in China's Electricity Sector", *Pacific Affairs*, Vol. 77, No. 3 (Fall 2004), p. 448.

<sup>40</sup> Shiwei Shao, Zhengyong Lu, Nouredine Berrah, Bernard Tenenbaum and Jianping Zhao (eds), *China Power Sector Regulation in a Socialist Market Economy*, World Bank Discussion Paper No. 361 (Washington: World Bank, 1997).

The plan was initiated in 1996, when Zhu formally proposed to corporatize the power industry. By replacing the MEP with the SPCC in 1997, the central government claimed to have taken a “significant step for the electric power industry management system to change from a central planning system to the socialist market economy”.<sup>41</sup> The SPCC was created as a state utility corporation with independent legal status and state-appointed executives. The SPCC took over business management functions from the MEP, while transferring the regulatory and administrative functions to the newly created SETC in 1998. Meanwhile, the SDPC, which was reorganized from the SPC in the same year, gained the authority to approve major power project investments and the setting of electricity tariffs. The SPCC, SETC and SDPC thus became the major players in the struggle over power sector reform, with the SPCC and SETC dominating the conservative side and the SDPC on the reformist side.

While the SPCC was supposed in principle to be an independent state corporation, it nevertheless acted like a central ministry of the same rank as the SETC and SDPC, by participating in central policy-making. Meanwhile, Li Peng still maintained strong control over the power sector through wide patronage networks, despite his replacement by Zhu as premier in 1998. In particular, his son, Li Xiaopeng, became the head of the Huaneng Power Corporation, the largest IPP, funded directly by the State Council.<sup>42</sup> His long-term protégé, Gao Yan, was appointed general manager of the SPCC, guaranteeing Li Xiaopeng’s later position as SPCC’s deputy general manager. Standing firmly on the SPCC side was the SETC. Although the SETC assumed regulatory responsibilities, it had little real independence from the power sector. During the 1998 government restructuring, the employees of the MEP transferred either to the SPCC or the Electric Power Department of the SETC, producing a tightly connected coalition between the two. Moreover, as the latter was often understaffed (initially employing just 16 people), it often recruited staff directly from the SPCC, which further blurred the line between the regulator and the enterprise. Finally, since the SETC had to depend on the powerful SPCC in carrying out reforms, the SPCC often succeeded in persuading its regulator that the SPCC not only understood the correct direction of reform better but was also capable of launching its own restructuring.<sup>43</sup> The conservative camp thus coalesced around the SPCC and the SETC, which attempted to keep any radical reforms off the agenda of the State Council.

The SDPC, by contrast, took a radical stance and insisted on introducing competition into the sector. Unlike its predecessor, the SPC, the SDPC no longer focused on micro-level planning to meet specific industrial targets but was

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<sup>41</sup> “Guojia dianli gongsi chengli” (The State Power Corporation of China Has Been Established), *Renmin ribao* (People’s Daily), 18 January 1997.

<sup>42</sup> His daughter and wife became respectively the CEO of the China Power Investment Corporation and the manager of the Daya Bay nuclear plant.

<sup>43</sup> Philip Andrews-Speed, *Energy Policy and Regulation in the People’s Republic of China* (The Hague: Kluwer Law International, 2004), p. 180; Laura Dodge, “The Political Effects”, p. 126; Yi-chong Xu, *Powering China*, p. 153.

responsible for macro-level regulations such as approving major investment projects and cooperating with international financial institutions on developing domestic industrial projects. With a significant reshuffling of personnel, Zeng Peiyan, a reformist and a close colleague of Zhu, became the director of the commission in 1998. As a result, the SDPC went against its predecessor and became an eager pupil of Western reform experiences, showing strong interest in the models adopted in England and Wales, where the power sector was unbundled to introduce competition. Thus it was not the SETC, the direct regulator of the SPCC, but the SDPC that proposed to the State Council a series of radical reform plans. Shortly after the birth of the SPCC, the temporary occurrence of power surplus in 1998 opened a window of opportunity for the SDPC and the World Bank to push the reform process forward. Reformists pointed out that corporatization was only the preliminary stage of transforming the central planning system. Establishing a fully competitive sector invariably entails the dismantling of the monopolistic sector and the introduction of market mechanisms to power generation, transmission and distribution.

#### *The Shift of the Conservatives' Strategy*

The SDPC's radical attitude towards power sector reform aroused the enmity of the SPCC and SETC.<sup>44</sup> However, in contrast to their predecessors, the SPCC and SETC did not fight back by directly opposing the reform agenda but by actively promoting their own reforms. On various public occasions, the SPCC emphasized the importance of deepening the reform of the power sector and expressed its firm determination to "follow the trend of the world" and the "spirit of reform and innovation", to "push forward market competition step by step" and raise the sector's efficiency.<sup>45</sup> In order to seize the reform initiative, conservatives also strengthened their connections with international organizations such as the United Nations Development Project and the World Bank. They hired a number of international consultants, such as the ADB, PriceWaterhouseCoopers, the Regulatory Assistant Project and the Mirant Corporation to provide advice on how to carry out reform experiments with different models.<sup>46</sup> Meanwhile, they vied with the SDPC to send delegates to the US, Australia and Europe to undertake substantial studies of foreign reform experiences. Indeed, a glance of the activities of the SPCC and SETC in the late 1990s seemed to suggest that they, rather than the conservatives, were the serious reformers.

Claiming that they were in the best position to lead the reform process, the SPCC and the SETC took pre-emptive action by proposing their own reform plans to the State Council in 1998.<sup>47</sup> In the name of pushing forward corporatization of the sector

<sup>44</sup> Yi-chong Xu, *Powering China*, pp. 152-53.

<sup>45</sup> See Gao Yan's speech in 1999 on "The Four Steps of Powers Sector Reform", *Zhongguo dianli* (China Electric Power), Vol. 36, No. 2 (2000), pp. 2-5; Also see Gao Yan and Liu Zhenya's speech in 2000 on "The Future Direction of the Power Sector Reform", *Zhongguo dianli bao*, 20 April 2000.

<sup>46</sup> Laura Dodge, "The Political Effects", pp. 123, 133.

<sup>47</sup> Yi-chong Xu, *Electricity Reform*, p. 198.

at the provincial and regional levels, the SPCC and SETC jointly supervised the conversion of provincial power bureaus to power companies, as well as the dissolution of previous regional power groups and the creation of new regional divisions (*fen gongsi* 分公司). By 2000, all five regional groups were replaced by the regional divisions of the SPCC, and all 27 provincial power companies were incorporated into the SPCC as its direct subsidiaries. As some international analysts commented, in terms of commercializing the provincial power bureaus these measures were only “paper fictions”. Moreover, through them the SPCC strengthened its vertical integration at the national level and gained control of 60 per cent of China’s generation assets and 90 per cent of T&D networks.<sup>48</sup>

At almost the same time, conservatives started to deal with the issue of disaggregating the sector, which had been put on the table by the reformists. International experience suggested two methods to introduce market competition in the power sector (Figure 1). The first was to break the sector up horizontally into regional corporations, each with its own generation, transmission and distribution facility, competing with one another on the market to sell electricity to consumers. The other was to dismantle the sector “vertically” into generation, transmission and distribution, and then introduce market competition into generation and distribution while keeping an integrated transmission grid at the national level. The second method implies multiple generators and distributors conducting market transactions in the electricity market.<sup>49</sup>

Fearing that the first method would compromise the sector’s national integration, conservatives supported the vertical method. Yet, instead of focusing on introducing competition into generation and distribution, they diverted attention to maintaining the national integration of power transmission. Thus, shortly after corporatization, the SPCC and SETC proposed a second plan, a multimillion-dollar project to construct and improve cross-provincial T&D networks. In order to create an enabling environment for introducing competition, the SPCC argued, a market large enough to contain a sufficient number of competitors must be established, and the individual provinces could not apparently provide such a market. Creating well-connected interprovincial grids thus became the precondition for talking about any effective market competition.<sup>50</sup> Among top officials, Li Peng was one of the most vocal advocates of this “national integration” thesis. In a public speech, he insisted that “a united power grid and distribution network should be established across the country”

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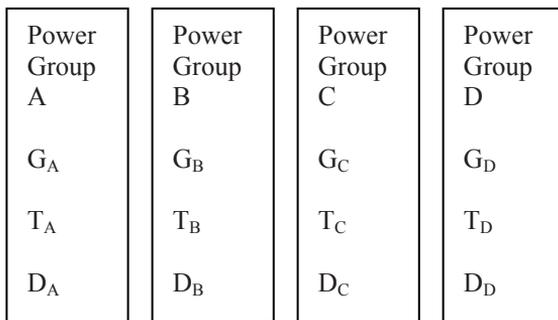
<sup>48</sup> The World Bank Sector and Thematic Evaluations Group, “The Bank’s Assistance to China’s Energy Sector: An OECD Country Sector Evaluation”, at [www.worldbank.org](http://www.worldbank.org), 28 February 2001, last accessed 2 September 2005.

<sup>49</sup> Mingzhou Yang, “Dianli gaige ruhe fan longduan” (How to Counter Monopoly in Power Sector Reform), *Jingji ribao* (Economic News), 18 May 2001.

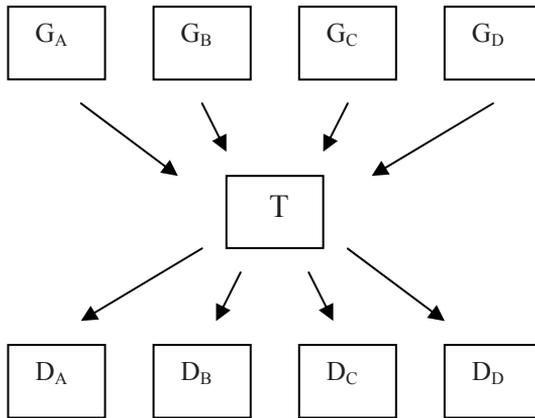
<sup>50</sup> See Gao Yan’s speech in 1998 on “The Plan to Build a Nationwide Grid”, published in *Zhongguo dianli*, Vol. 32, No. 1 (1999).

so that “market mechanisms can be introduced at a later stage”.<sup>51</sup> The SPCC and SETC succeeded in persuading the State Council to approve this project. Yet, as observers pointed out, the SPCC and SETC showed no real intention of introducing competition. The expansion of cross-provincial networks became another exercise of top-down re-consolidation of SPCC power over its provincial subsidiaries, which helped the SPCC and SETC to occupy the leading position in the reform process.<sup>52</sup>

**Figure 1: Illustration of the Two Models of Market Competition**



**Horizontal Competition**



**Vertical Competition\***

G = Generation, T = Transmission, D = Distribution

\* The model supported by conservatives

<sup>51</sup> “Li Peng zai quanguo dianli gongzuo huiyi shang de jianghua” (Li Peng’s Speech at the National Conference of the Electric Power Industry), *Renmin ribao*, 30 December 1997.

<sup>52</sup> Author’s interview with officials from the Associations of the Power Industry in January 2004 in Beijing and Sichuan.

The SDPC criticized the SPCC and SETC for obstructing real market reforms. It argued that the so-called “market reforms” which the SPCC carried out were in fact a return to a centrally planned economy and strengthened their already too-powerful position. If the SPCC and SETC truly supported the “vertical” model, the SDPC pointed out, they should not stop at building power grids but should also separate power generation and distribution from transmission in order to extend competition.<sup>53</sup> It further contended that, since the SETC had almost no independence from the SPCC, the reform should instead be led and supervised by the SDPC.

To maintain their position, the SPCC and SETC quickly put forward a third proposal, to carry out unbundling experiments in six provinces (Liaoning, Jilin, Heilongjiang, Zhejiang, Shanghai and Shandong) in 1999. Contrary to its previous argument regarding the inadequate size of the provincial market, the SPCC this time emphasized the provincial market and designed a reform plan for each province. The idea was to separate local generation enterprises from provincial power companies so that the former became IPPs that could compete in an electricity pooling system. However, the SPCC and SETC were far more interested in putting out this proposal as an expedient way to deal with the pressure to reform than in seriously carrying out the plan. Of the six provinces, Zhejiang was the only one where some changes were observed.<sup>54</sup> In other provinces, power generation groups continued to remain under the protection of the provincial companies, without market pressure from IPPs. Concluding that “these experiments were largely disappointing and failed to set successful examples for other provinces”, the State Council officially suspended them in 2000.<sup>55</sup>

Unlike the first round of power sector reform, the second was characterized by an environment favoring market forces. In response to reform pressures, the SPCC and the SETC did not directly oppose the pro-reform SDPC but put forward their own “blueprints” for market reform so as to seize reform opportunities. The complexity involved in this round also provided considerable maneuvering space for the conservatives. It enabled them to launch a number of reforms, such as the corporatization of the regional subsidiaries and the expansion of nationwide power networks, that were both instrumental in advancing their own interests and in accordance with the spirit of “market reform”. This new strategy made it increasingly difficult for the reformists to criticize them.

### ***The Third Round: Manipulating the Market***

In late 2000, the problem of deepening reform reached the top of the agenda. In response to the failure of the SPCC-led reforms, the State Council took the reform initiative out of the hands of the SPCC and SETC and authorized the SDPC to lead

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<sup>53</sup> Liu Jipeng, “Dianli de tizhixing sikao” (Thoughts on the Institutional Problems of the Power Sector), *Jingji cankao* (Economic Reference), 13 July 2000.

<sup>54</sup> “Streamlining and Advancing Power Sector Reforms in China”, World Bank Working Paper No. 76023, Washington DC (24 August 2001).

<sup>55</sup> “Notice on the Question of Power Industry System Reform by General Office of the State Council”, available at [www.sp.com.cn/english/publications](http://www.sp.com.cn/english/publications), last accessed 20 December 2008.

the reform. Openly criticizing the SPCC and SETC for delaying the introduction of market mechanisms to the power sector, the SDPC sponsored another workshop with the assistance of the World Bank and the Energy Foundation, and submitted several drafts of plans to the State Council. The plans called for both vertical and horizontal disaggregation of the power sector so that power generation and distribution would be separated from transmission and regional power groups and provincial power companies would gain considerable autonomy from the SPCC.<sup>56</sup> A number of factors helped the reformists gain momentum in this period. Domestically, frequent electricity shortages and the rise of electricity rates drew criticism from experts, investors, IPPs, NGOs, industries and consumers.<sup>57</sup> Internationally, the monopolist image of the power sector was inconsistent with China's entry into the WTO, presenting a good chance for the SDPC to combat vertical integration in the power sector.<sup>58</sup>

In anticipation of being disaggregated, the SPCC and SETC decided to fight their last battle by falling back on their previous "variety of investment channels" thesis. The SPCC general manager Gao Yan argued that the monopoly could be changed by encouraging other investors to hold a small proportion of stocks, thereby providing multiple investors. Meanwhile, the SPCC also pointed to the California electricity crisis as an example of the potential danger of power sector restructuring.<sup>59</sup> However, a series of severe corruption scandals from 2000 to 2002 soon crippled the conservatives. In 2000, reports of corruption within the SPCC and the Huaneng group began to surface, involving both Li Peng and his son Li Xiaopeng. This caused more than a hundred protesters to publicly demand further investigation of the Li family.<sup>60</sup> This was followed by Gao Yan's sudden disappearance in April 2002. After embezzling and misallocating an estimated 3.28 billion yuan worth of state funds, Gao fled to Australia as a fugitive, ironically only two months after he gave a final public speech on fighting corruption.<sup>61</sup> The scandals strengthened the reformists' call to tame the power sector by radical reforms. Coinciding with the growing pressure for change was

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<sup>56</sup> Yi-chong Xu, *Electricity Reform*, p.199.

<sup>57</sup> Jizhong Zhao, "Dianli shichanghua gaige ji dianli keji chuangxin" (The Power Sector Structure Reform and Technological Innovation), *Qiye guanli* (Business Management), Vol. 42 (2001).

<sup>58</sup> Yi-chong Xu, *Electricity Reform*, p. 199.

<sup>59</sup> During the electricity crisis of 2000 and 2001, California experienced a severe electric shortage and rapid increase in electricity prices (as high as \$750 dollars per megawatt hour). The cause of the crisis is generally attributed to deregulation of public utilities and manipulation of the market.

<sup>60</sup> Antoaneta Bezlova, "China corruption probes signal power plays", 1 November 2002, at <http://www.atimes.com/atimes/China/DK01Ad05.html>, last accessed 22 April 2009.

<sup>61</sup> His son Gao Xinyuan was sentenced the following year for bribing power sector officials for his own power investment company. See Hongqing Duan, "Son of Ex-Power Czar Gets Five Years", 20 September 2004, at <http://english.caijing.com.cn/2004-09-20/100043279.html>, last accessed 22 April 2009.

Premier Zhu Rongji's own support for disaggregating the sector. Without having achieved much progress in SOE restructuring and responding to the danger that the central government would be perceived as passive or inert, Zhu was "playing a game of catch up" at the end of this premiership. Supporting the unbundling of the sector was one of the crucial measures he decided to take before stepping down.<sup>62</sup>

On 29 December 2002, following the issuance of the Electric Power Sector Reform Plan by the State Council, Zeng Peiyan announced the dismantling of the gigantic SPCC into five power generation groups, two power-grid companies and four auxiliary companies. Each of the five generation groups gained about 20 per cent of the market. The SG gradually spun off its previous generation assets to the groups and took over most of the SPCC's T&D assets, while leaving a small parcel of assets to the Southern Power Grid. In addition to the "vertical" logic of separating generation from transmission and distribution, the SDPC-led reform simultaneously emphasized the "horizontal" logic: it established five regional power grid companies (Huabei 华北, Dongbei 东北, Xibei 西北, Huadong 华东 and Huazhong 华中) so as to prevent the SG from becoming a monopoly. Furthermore, after consultation with the World Bank experts, the State Council also created the SERC as an independent regulatory agency.

The change in the power sector was accompanied by changes in other state organizations during this period. In 2003, during the reorganization of the Chinese government, the SETC was abolished and its functions partly incorporated into the Ministry of Commerce and partly transferred to the NDRC, a new commission created out of the SDPC. The NDRC not only became the most authoritative body for China's macro-economic policy but also took over from the SETC the functions of making industry policy and leading industrial reforms.

Although losing its ally, the SETC, in this round of reform, the SG still controlled most of the T&D assets in China and remained the most powerful agency in the sector. Theoretically, the five generation groups were supposed to compete for profits in the electricity market by selling electricity to the SG at the market price. However, since the SG was the sole buyer of their electricity, the actual price did not float. This enabled the SG to obtain electricity from generation plants at much lower rates than market prices, while selling the electricity to consumers at the highest possible price. The generation groups thus complained about the implausibility of enforcing market competition with the presence of a powerful SG and were often in conflict with the SG over the setting of power prices.<sup>63</sup>

The NDRC, which gained much more authority over industrial development and reform than had its predecessor, was an active supporter of market competition in generation and distribution. It advocated the development of five regional power grids so as to change the SG-dominant situation, and saw the SG as the main obstacle to smooth market transactions between producers and consumers. Like the

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<sup>62</sup> Barry Naughton, "Evening Glow: The Final Maneuvers of Zhu Rongji", *China Leadership Monitor*, No. 4 (November 2002).

<sup>63</sup> Author's interview in June 2006 in Beijing.

SDPC and SPCC, the NDRC and SG fought over electricity price-setting. The NDRC sought to curtail inflationary pressures by keeping end-user prices low, and thus often criticized the SG for charging excessively high electricity rates. The SG was concerned about its own profits, and often pointed to the high cost of T&D as justification for the high prices. The NDRC in turn criticized the SG for deliberately raising their official cost by including the cost of auxiliary companies and illegal business within the cost of T&D.<sup>64</sup>

The SERC, according to the Electric Power Sector Reform Plan and the “roadmap” designed by the World Bank, was supposed to function as an independent regulator, to be separate from the industry that it was regulating and to maintain substantial autonomy from the political influence of other government agencies.<sup>65</sup> Its responsibilities included setting the rules for electricity markets, overseeing market operations, supervising the establishment of transaction institutions and arbitrating disputes within the sector.<sup>66</sup> In reality, both the independence and authority of the SERC remained questionable.<sup>67</sup> The SERC not only shared the same office building as the SG but was also partially financially dependent on it. Moreover, many of its staff were ex-SPCC employees. Although the president of the SERC, Chai Songyue, was considered neutral towards the industry, he had 20 years of experience working in the power sector and was a long-time associate of Li Peng, casting doubt on the SERC’s independence.<sup>68</sup> Moreover, the SERC’s authority was substantially overshadowed by the NDRC, which ranked first among all regulatory agencies for the power sector.<sup>69</sup> With the NDRC having the decisive authority over the approval of power projects and regulation of power prices, the SERC only had the right to make suggestions, and was viewed by many as mere “decoration” to the policy-making process.<sup>70</sup>

The situation seems to have changed in 2005, when the State Council granted the SERC more authority over market reforms.<sup>71</sup> Since then the SERC has proposed

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<sup>64</sup> Haidong Cao, “Gaibugai chaifen guojia dianwang? Zhuanjia pinglun” (Should the SG be Dismantled? Opinions From Three Experts), *Nanfang jingji pinglun* (Southern Economic Review), 17 August 2005.

<sup>65</sup> Margaret M. Pearson, “The Business of Governing Business in China: Institutions and Norms of the Emerging Regulatory State”, *World Politics*, Vol. 57, No. 2 (January 2005), pp. 299.

<sup>66</sup> Chi Zhang and Thomas Heller, “Reform of the Chinese Electric Power Market”, p. 103; The World Bank, *Establishment of A State Electricity Regulatory Commission in China: A Suggested “Roadmap”* (Washington: The World Bank, 2002).

<sup>67</sup> Author’s interview in December, 2004 in Beijing. Also see Robert Gee, Songbin Zhu and Xiaolin Li, “China’s Power Sector: Global Economic and Environmental Implications”, *Energy Law Journal*, Vol. 28, No. 2 (2007), p. 434.

<sup>68</sup> Margaret M. Pearson, “The Business of Governing Business”, p. 308; Emily Yeh and Joanna Lewis, “State Power”, p. 460.

<sup>69</sup> Tun-jen Cheng and Chung-min Tsai, “Powering Rent Seeking”, p. 122.

<sup>70</sup> Chi Zhang and Thomas Heller, “Reform of the Chinese Electric Power Market”, p. 105; Philip Andrews-Speed, *Energy Policy*, p. 214.

<sup>71</sup> Robert Gee, Songbin Zhu and Xiaolin Li, “China’s Power Sector”, p. 434.

to the State Council a series of aggressive measures to break the monopoly of the SG, and has even taken a more radical reformist position than the NDRC.<sup>72</sup>

*The Strategies of the State Grid Corporation*

Since the birth of the SG in 2002, reformists have repeatedly demanded its dismantling in favor of an electricity market with multiple “buyers” for generation plants and multiple “sellers” for end users. Officials and experts from both domestic and international institutions, such as the SERC, the NDRC and the ADB, have voiced this position. Their call for unbundling the SG has revolved around two themes: first, the horizontal development of several regional power grids in order to avoid the monopoly of the SG; second, the continued vertical separation of power distribution from transmission so that distribution companies could participate directly in market transactions with the generation plants. In response to, or probably in anticipation of, these pressures, the SG developed two important strategies.

The first was the building of an 800-billion-yuan high-voltage transmission network. In 2005, the *People's Daily* published an article by Liu Zhenya, the general manager of the SG, who emphasized the important role of a nationwide cross-regional high-voltage transmission network. If the ultimate goal of reform is to optimize the allocation of resources based on market forces, he argued, only the high-voltage grid could provide the basic condition and carrier for such allocation. Furthermore, since a high-voltage grid had many advantages for security and transmission speed, developing the grid was the “inevitable choice” and the “objective law” for restructuring the industry.<sup>73</sup> The plan, which was later submitted to the central state, immediately aroused wide opposition and criticism from the reformists. They pointed out that constructing such a network would not only need *three to four times* the capital used for constructing the Three Gorges Dam but would also directly strengthen the monopoly of the SG. Since the high-voltage transmission standard was 1,000 Volts while the regional power grids were generally only 500 Volts, construction of the former would lead to the elimination of the latter. In fact, in the name of building the high-voltage network, the SG stopped the development of regional electricity markets and instructed all regional grids to transfer the management of their operations to the SG; for those regions that failed to do so, the SG would block their generation plants from accessing the SG's transmission network. By doing so, the SG would remain the sole buyer and distributor in the electricity market. This behavior was viewed by reformists as “maximizing its own interests” instead of “optimizing resource allocations”, and the SG was accused of “patently going against the spirit of the 2002 Power Sector Reform Plan”.<sup>74</sup>

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<sup>72</sup> The reason for this change in the attitude of the SERC needs further research.

<sup>73</sup> Zhenya Liu, “Quanmian jianshe xiaokang shehui xuyao jianqiang de guojia dianwang” (The Building of *Xiaokang* Society Calls for Strong National Power Grid), *Renmin ribao*, 11 May 2005.

<sup>74</sup> Ying Peng, “Te gaoya zhizheng” (The Debate Over the Construction of a High-Voltage Transmission Network), *Caijing kexue* (Finance and Economics), 15 December 2006;

Nevertheless, after more than one year of struggle, the SG seemed to have won and the project was finally launched in 2007.<sup>75</sup>

While the building of a high-voltage network resembled the previous strategy of expanding cross-province grids used by the SPCC, the SG also created a new strategy to deal with the reform pressure. In 2006, following the State Council's issuance of the "Suggestions on Deepening the Reform of the Electricity Sector in the Eleventh Five Year Plan", the SG formally established a "triple-level" electricity exchange center. The center was located within the SG office in Beijing and its sub-levels were located in regional and provincial power grid companies. In July 2007, all thirty transaction locations started formal operation. The SG claimed that the establishment of the exchange center marked the introduction of market mechanisms to the power sector and the separation of power transmission from power market transactions. This meant that electricity producers and buyers could conduct market exchanges on a daily, monthly or longer-term basis while the power grid companies would only be responsible for electricity transmission. It further emphasized that the center provided a convenient, efficient and free platform for sellers and buyers with little additional transaction cost.<sup>76</sup>

The SG's strategy was a preemptive bid which took the NDRC and SERC by surprise. Immediately after the establishment of the center, the NDRC and SERC openly required the SG to "explain" its intentions and the reasons that, as regulators of the power sector, the NDRC and SERC were "uninformed" of such a plan. As some officials and experts from these two institutions pointed out, the transaction center was yet another measure adopted by the SG to strengthen its leading position in the reform. The center deprived the regional electric grids of power over market reform, and the transaction center itself became another tool directly controlled by the SG. In fact, since late 2006, the SG has already started to refuse or delay providing transaction data to regional offices of the SERC. Many generation plants also complained that the center was completely controlled by the SG without introducing any change to the sector; the SG still dominated the price-setting process and maintained direct control over transmission and distribution.<sup>77</sup> The creation of the center thus represented another victory of the conservative side, as the SG successfully gained the right to set the rules for the whole electricity market.

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Mingzhou Yang, "Dianwang gongsi longduan" (The Monopoly of the SG), *Zhongguo jingyingbao* (China Business Management), 12 November 2006.

<sup>75</sup> The reason that the central state passed this project remains unclear.

<sup>76</sup> "Dianli jiaoyi zhongxin xinxing" (The Electric Transaction Center Has Started Operation), *Shanghai zhengquan*, 20 July 2007.

<sup>77</sup> "Dianli jiaoyi zhongxin nanpo dianwang longduan" (The Electric Transaction Center Hardly Changed the Monopoly of the SG), *Xinjing bao* (New Beijing News), 7 September 2006; Feng Yao, "Dianli jiaoyi zhongxin zao zhiyi" (Electric Transaction Center Questioned), *Jingji baodao* (Economic Report), 12 December 2006.

*Power Sector Reform at the Cross Roads*

Currently, the reformists face a dilemma. On the one hand, reform has been largely put on hold, with the SG having strengthened its leading position in the sector. Among the reformists, divisions and conflicts have begun to emerge regarding reform priorities. The NDRC is primarily concerned with the stability of the entire economy and devotes most of its attention to keeping electricity prices low. The SERC worries more about establishing its own regulatory authority and keeps a watchful eye on both the SG and the NDRC. The five generation groups are mainly concerned with realizing floating electricity prices and curtailing the dominant role of the SG in price setting, but their requests are often restricted by NDRC's cautionary price policy. Thus, although these agencies were all reform supporters, each of them has its own concerns, and there is no coherent force that consistently pushes forward the reform agenda.

On the other hand, since the reform has already been launched, abandoning the reform project is not an option. The disappointing results and societal criticism of the sector have pressured the central government to keep its promise and continue with reform. Since 2002, most provinces have experienced severe power shortages and frequent power cuts. Electricity rates were raised in 2005, 2006 and 2007. Reports of serious corruption continue. These problems have aroused wide public discontent and social indignation, culminating in the summer of 2006, when the "power sector high income" event coincided with a notorious blackout scandal.<sup>78</sup> Faced with rising calls to further break up the monopoly of the sector, the state once again announced its determination to pursue reform. In 2006, the State Council approved the "Suggestions on Deepening the Reform of the Electricity Sector from 2006 to 2010", which largely repeated the goals of market reform set in the 2002 reform plan.<sup>79</sup>

Like the second round of reform, the third round was also launched in a pro-market context and was characterized by the conservatives' harnessing of reform opportunities for their own use. However, the strategies of the conservative group were even more aggressive. The SG not only responded to reform pressure by strengthening its vertical integration, as in the second round, but also created a seemingly market-friendly measure, establishing the electricity exchange center, which was unanticipated by reformists. Further adding to the complexity and difficulty of the reform was the emergence of multiple players on the reformist side,

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<sup>78</sup> The chain of events was triggered by a news report on 26 June 2006, uncovering the excessively high income of 100 thousand yuan per year of a bottom-level staffer in a power plant on the verge of bankruptcy, which, together with the earlier report that the sector was making a total loss of 12.7 billion yuan in 2005, aroused public indignation. In August, the Vice Secretary General of the China Electric Council, Fan Jixiang, gave an open defense of the legitimacy of such high income levels in the power sector to the media. This, however, only intensified public anger, which exploded when the scandal of an arbitrary power cut by local power bureau officials in Hunan was exposed in August 2006.

<sup>79</sup> "State Council Approves Suggestions on Electricity Industry Reform", 2 November 2006, at [http://english.gov.cn/2006-11/02/content\\_431156.htm](http://english.gov.cn/2006-11/02/content_431156.htm), last accessed 12 May 2008.

each with different reform priorities. This weakened the solidarity of the pro-reform group and provided the anti-reform group with a better opportunity to manipulate the so called “electricity market”. Consequently, it becomes increasingly unclear how to proceed with future reforms.

### **Conclusion: Learning from China’s Trapped Reform**

By examining conflict over three rounds of China’s power sector reform, this paper reveals the fundamental difficulties of introducing market mechanisms into an established monopoly. The pendulum of reform, after swinging between the reformist and the conservative sides through three rounds, seems to have eventually stabilized in a partial equilibrium. Minxin Pei has attributed this type of “trapped transition” to China’s lack of political reform despite economic progress, which enables the ruling élites to reap benefits and gives rise to a predatory autocracy that is in the long run self-destructive.<sup>80</sup> The goal of this article is more modest, but shows, through an important example, how political interests and struggles at the élite level can substantially influence the quality and sustainability of economic reform. Such a trapped reform is particularly likely to occur when the potential losers learn to adapt their strategies to changing institutional contexts. In the case of the power sector, as market forces have gradually established legitimacy in China, conservatives have shifted to support reform measures that can both appeal to pro-market forces and preserve their sector’s monopoly. This change in strategy, in turn, affects the pace of institutional change by making it increasingly difficult for the reformist group to oppose the conservatives’ reform agenda.

Power sector reform thus bears important lessons for reform in China’s other state-dominated sectors, which are subject to the same danger of being trapped in partial equilibria. Industries such as telecommunications, aviation and railways were all ranked as the priority targets of reform in the Eleventh Five-Year Plan. China has been trying to introduce market mechanisms into these industries since the late 1990s, but has achieved little success in changing the monopoly structure.<sup>81</sup> Telecommunications reform, for example, resembles power sector reform in many aspects. The government reorganized and dismantled the industry into multiple entities in order to introduce competition, but the sector continued to be dominated by non-efficient SOEs that had previously been affiliated with the Ministry of Information Industry, the supposed regulator of the sector. Studies have suggested

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<sup>80</sup> Minxin Pei, *China’s Trapped Transition: The Limits of Developmental Autocracy* (Cambridge MA: Harvard University Press, 2006).

<sup>81</sup> Kenneth DeWoskin, “The WTO and the Telecommunications Sector in China”, *The China Quarterly*, No. 167 (September 2001), pp. 630-54; Rong Zhang and Dominique Bouf, “How Can Competition Be Introduced into Chinese Railways?” *Transport Policy*, Vol. 12, No. 4 (July 2005), pp. 345-52; Pamela Mar and Michael Young, “Corporate Governance in Transition Economies: A Case Study of Two Chinese Airlines”, *Journal of World Business*, Vol 36, No. 3 (August 2001), pp. 280-302; Jae Ho Chung, “The Political Economy of Industrial Restructuring in China: The Case of Civil Aviation”, *The China Journal*, No. 50 (July 2003), pp. 61-82.

that, similar to the power sector, an important cause of the slow progress of telecommunications reform lies in the political interests controlling this vital industry and the strength of reform opponents to protect their monopoly.<sup>82</sup>

In a broader perspective, this study challenges the teleological view commonly associated with market reform. Instead of simply leading to liberal market competition, market reform is often filled with complexity and ambiguity, and the objective of a competitive market can be used as a powerful weapon by different groups in the policy process. In fact, studies of power sector reforms in other countries—including India, South Korea, Russia and Latin American countries—have shown that, beneath the veneer of market friendly policies, there has always been complex political competition among policy coalitions and incumbent interest groups, which often prevent substantial changes.<sup>83</sup> To avoid idealizing market reform in the power sector, a careful examination of the policy-making process is of vital importance for diagnosing the roots of the problem. Simply proposing more radical reform policies, as some experts and observers of the power sector in China have done, may be counterproductive. It is the way in which actors manipulate these policies, rather than the policies themselves, that eventually shapes the path of reform.

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<sup>82</sup> Minxin Pei, *China's Trapped Transition*, pp. 102-09; Margaret M. Pearson, "The Business of Governing Business".

<sup>83</sup> Sunila S. Kale, "Current Reforms: The Politics of Policy Change in India's Electricity Sector", *Pacific Affairs*, Vol. 77, No. 3 (Fall 2004), pp. 467-91; John Byrne, Leigh Glover, Hoesung Lee, Young-Doo Wang and Jung-Min Yu, "Electricity Reform at a Crossroads: Problems in South Korea's Power Liberalization Strategy", *Pacific Affairs*, Vol. 77, No. 3 (Fall 2004), pp. 493-516. For a comparison between China, India and Russia, see Yi-chong Xu, *Electricity Reform*; for reform experiences in five developing countries, see David Victor and Thomas Heller (eds), *The Political Economy of Power Sector Reform*; for reforms in Latin America, see Victoria Murillo, *Political Competition, Partisanship, and Policy Making in Latin American Public Utilities* (New York: Cambridge University Press, 2009).