

The Audit of Conventional Wisdom

In this series of essays, MIT's Center for International Studies tours the horizon of conventional wisdoms that animate U.S. foreign policy, and put them to the test of data and history. By subjecting particularly well-accepted ideas to close scrutiny, our aim is to re-engage policy and opinion leaders on topics that are too easily passing such scrutiny. We hope that this will lead to further debate and inquiries, with a result we can all agree on: better foreign policies that lead to a more peaceful and prosperous world. Authors in this series are available to the press and policy community. Contact: Michelle Nhuch (NHUCH@MIT.EDU, 617.253.1965)

Center for International Studies Massachusetts Institute of Technology Building E38-200 292 Main Street Cambridge, MA 02139

T: 617.253.8093 F: 617.253.9330 cis-info@mit.edu

web.mit.edu/cis/ web.mit.edu/cis/acw.html

China's Energy Governance: Perception and Reality

Edward A. Cunningham MIT Political Science

A s observers outside of China warn of a looming Chinese endgame in global energy assets, manipulated by Beijing, leading policymakers inside of China are facing considerable challenges governing major energy companies—especially those that the state owns. Chinese President Hu Jintao's recent tour of African states and rumors of the first Chinese takeover of an overseas listed company have attracted critical attention and spurred much discussion. Most analysis of China's energy governance has placed the central government in the driver's seat. The reality is that this perspective is grossly misleading.

Critics of Beijing should take a collective step back and re-examine the historical and contemporary dynamics shaping energy policy in China. First, government actors—even at the central level—are plagued with vague and conflicting interests, resulting in stillborn energy institutions that historically have failed to produce focused energy policy. Second, successful measures by the central government in state-owned enterprise (SOE) reform have created newly empowered corporate actors whose operations are largely obscured from official view, and who selectively tap state resources as they see fit. Third, the traditional levers of "top-down" vertical authority by the Chinese state, such as direct financing, permit approval, and penalty enforcement have been greatly weakened by domestic reform. Energy decisions in China do not conform to the state-dominant view suggested by both pundits and government officials. At best, this lens leads to ineffective US policies. At worst, it encourages the dismissal of competing evidence, greatly weaken-ing the ability of policymakers to identify emerging trends and to forecast future trends.¹

Rhetoric vs. Reality

Despite the far-reaching political salience of the issue, the public debate over state involvement in public firms reveals a surprising lack of balance. For the vast majority



Edward A. Cunningham is a PhD candidate in the Department of Political Science at MIT, and a research fellow both at MIT's Industrial Performance Center and Harvard's Asia Pacific Policy Program.

citation

Edward Cunningham. "China's Energy Governance: Perception and Reality." MIT Center for International Studies Audit of the Conventional Wisdom, 07-04 (March 2007). of analysts the term "state-owned" equates to "state-controlled," fueling a perception that the "hidden hand of the socialist state lurks behind many Chinese companies."² The June 2005 bid by China National Offshore Oil Corporation's to acquire Unocal, an established midsized American petroleum firm, captured well the rising sense in the US that Beijing is "going global," and doing so through the tentacles of state-owned enterprises. A few weeks after the bid, a range of publications, including the *New York Times* and the *Economist*, published articles addressing the "China, Inc." argument. Borrowing from the work of scholars such as Chalmers Johnson, whose label "Japan, Inc." powerfully reconceptualized the success of Japan's industrial policy of the late 1970s and 1980s, US government officials and a multitude of pundits have employed the variant "China, Inc." to frame industrial policy in China's energy sector. Such analysis posits that Chinese firms are "mere tools of an expansionist policy propagated by Beijing's leadership."³ The reality suggests otherwise.

It is clear that Chinese energy SOEs are utilizing a degree of state financing and a host of diplomatic resources through Beijing. Respected observers have written about the offsets of balance of payment deficits created by large oil purchases, well-timed military sales to energy clients such as Iran, and of course the subsidized financing provided to Chinese firms by Beijing.⁴ Indeed, the October 2006 Forum of China-Africa Cooperation clearly signalled the importance of state diplomacy in winning business contracts. However, this relationship does not confirm that the causal arrow of influence points from Beijing to the firms. The evidence supports a less monolithic view.

In the energy downstream markets, Chinese government sources estimate that approximately 120,000 MW of electric capacity currently in the process of installation has not received approval from Beijing and is, therefore, illegal. This illegal capacity alone is greater than that of Germany's national grid, the largest in the European Union.⁵ China's energy upstream markets reveal similar trends. In the summer of 2005, analysts blamed "artificial" and "man-made" shortages for the miles-long lines plaguing south China's major cities, the result of Sinopec and other major petroleum firms illegally exporting crude in an effort to profit from the estimated \$10-20 gap between low domestic and high international oil prices.⁶ The country's largest coal producers and power producers repeatedly failed to agree on negotiated coal pricing for eight months between 2005 and 2006, despite repeated government attempts to mediate. Local actors are now shaping China's energy markets at an unprecedented pace and scale, engaging in long term investment decisions in fuel choice and technology that will remain in place for decades. Moreover, these actors are regulated by a fractured and diminished central bureaucracy.

Competing Interests

Energy policy in China today is a battleground of negotiation among powerful actors with conflicting interests that are evident everywhere. Within the central government itself, regulatory bodies such as the State Electricity Regulatory Commission and the pricing bureau of the National Development Reform Commission seek to strengthen competition by maintaining high numbers of energy firms in industries such as power generation. In contrast, other central agencies, such as the State-Owned Assets Supervision and Administration Commission, aim to maximize returns on assets by encouraging the consolidation of existing firms.

Conflicts of interest between central and local governments are perhaps more obvious. Subnational government leaders, eager to maintain or increase economic output and thus advance their political careers, often aid in the financing and underreporting of power production capacity expressly forbidden by the central government. Lastly, interests between local government actors diverge as well. More efficient, large scale networked power producers are often stymied by dispatch discrimination by grid companies; local governments continue to build and protect smaller, highly polluting plants to support higher tax revenue; and many localities remain unwilling to depend on other localities for sources of energy. These conflicting interests have fueled an institutional evolution of energy oversight that has become an alphabet soup of line ministries built and destroyed and supra-institutions effectively still-born.

Splintered Institutions

Current institutional dynamics are shaped by two underlying aspects of Chinese energy governance. First, energy institutions have followed a tortuous path in China, characterized by overlapping jurisdictions and inconsistent waves of centralization and decentralization.⁷ Significantly, Beijing's first attempt to centralize energy oversight proved short-lived. Between 1953 and 1955, the Ministry of Fossil Fuels combined the coal, electricity and petroleum industries into one organ for energy policymaking, allocation, and planning. Fifty years of reform has not resulted in a lasting structure. By 1998, China's energy policy structure had undergone four periods of decentralization and recentralization. In March 2003, the State Economic Trade Commission was abolished and the majority of its functions transferred to the National Development and Reform Commission, as it was eventually renamed. Immediately prior to this major realignment, the nation's first independent regulator for the power industry was established: the State Electricity Regulatory Commission.

Despite the seeming victory of final consolidation, however, parallel energy structures proliferated. At the central level, the State-Owned Assets Supervision and Administration Commission claims nominal ownership rights over, and bears responsibility for, the management and disposal of certain state-owned assets (including merger and acquisition approval and other energy asset restructuring). Energy research currently falls under the auspices of the Energy Bureau, part of the newly created umbrella organization named the State Energy Administration, while energy pricing authority is exercised by the Pricing Bureau, both housed within the reconstituted strategic and long term economic planning agency, the National Development and Reform Commission. The State Environmental Protection Agency enforces environmental standards and compliance by energy firms, while resource extraction rights, operation management, and conflict resolution responsibilities are largely shared by the Ministry of Land and Resources, the Ministry of Water Resources, and the State Administration of Coal Mine Safety.

Rise of the Corporation

Second, while several waves of separation and merger affected the energy sector throughout the 1970s, the 1980s ushered in the process of removing government from enterprise work and from the business of controlling energy production. Decentralization and partial deregulation led to the creation of a new class of legally independent corporate actors able to pursue a range of choices regarding energy provision-actors often unknown and unguided by central regulators. The energy corporation initially served as a vehicle to resolve increasingly blurred rights and claims between central and local government control over energy assets, and also to attract foreign technology and financing to develop domestic resources under tight credit market conditions. These firms are now rapidly proliferating, owned by a host of local public and private entities, and building capacity at a frenzied pace. Chinese coal production doubled between 1990 and 2005, and grew by 17 percent in 2004.8 Downstream, China generated approximately 1,106 TWh of incremental electricity between 1999 and 2004, nearly equal to the total world increase in 2003 and 2004 combined.9 At this rate, China is adding well more than one 1,000 MW plant a week, and the equivalent of nearly the entire Spanish national power grid annually. An incredible 102,000 MW were built last year alone and China will probably maintain a 70-80,000 MW annual increase through 2008.

The mobilization of corporate resources coincided with a massive reduction in the state's capacity to monitor the activities of these new actors. Central government personnel, dedicated funding, and institutional structure shrunk considerably during this critical reform period. In 1998, the 40 ministries overseeing China's growth were reduced to 29, with many employees transferred to SOEs, research institutes, quasi-private firms, or simply laid off. The reforms affected over

33,000 central government personnel and in total laid off more than four million government employees.¹⁰ Moreover, the state did not redeploy its resources to guide energy investments at the firm level.

The Wizard, Revealed

China's energy portfolio has now passed from Zhang Guobao to Chen Deming, who was recently appointed vice chairman of the National Development and Reform Commission and is an individual known for his experience navigating the sub-national level of government and negotiating with sophisticated foreign corporate interests. Despite such a promising professional background, Chen will be attempting to execute far-reaching energy reforms with, at most, a mere 750 individuals within the central government whose responsibilities in some way relate to energy policy.¹¹ The vast majority of these people devote only a small fraction of their attention to energy issues.

In contrast, the US Energy Information Agency alone—an organization dedicated mainly to data gathering, analysis, and education—employed 620 people in fiscal year 2004. The US Department of Energy employed 14,713 individuals in the same period.¹² While one may debate how many employees are involved in part-time energy work at these institutions, the disparity in personnel is striking, particularly in the context of the processes of decentralization, ownership diversification, corporatization, and rapid capacity expansion that characterize China's current energy market.

As China's economic growth begins to transform international markets as vital as energy, getting China policy "right" has never been more important. The U.S. must discard the "China, Inc." perception and deal with reality. First, effective US policy towards China requires identifying and interacting with powerful sub-national governments, not focusing exclusively on policy makers in Beijing. Second, strategic policy thinking will require serious consideration of the interests of the quasi-public, quasi-private enterprises SOEs that make many of the ground level decisions in energy and other key sectors. Third, encouraging state capacity in China, rather than fearing and demonizing it, will prove paramount. While accusations of neo-mercantilism and an over-bearing state dominate discussions of Chinese energy policy today, it is Beijing's lack of authority in this critical sector that should be most concerning to careful observers of China's long term governance.

article footnotes

¹ This top-down approach has been advanced in the academic realm as well; see Yang Dali *Remaking the Chinese Leviathan*, (Stanford: Stanford University Press), 2004; and David Zweig and Jianhai Bi, "China's Global Hunt for Energy," *Foreign Affairs*, vol. 84:5 (September 2005). For counter views on this topic, see chapter by Richard Lester and Edward Steinfeld in John Deutch, et. al., "Future of Coal," Massachusetts Institute of Technology, forthcoming.

² Paul Mooney, "Undue Fears of China, Inc.?" Yale Global, September 29, 2005.

³ Economist, "The Myth of China, Inc.," September 3, 2005, p.63

⁴ Amy Myers Jaffe and Steven Lewis, "China's Oil Diplomacy," *Survival*, vol. 44:1, Spring 2002, p. 124. Combatant Group, Ansar al-Islam and Abu Musab al Zarqawi's Tawhid and Jihad, now called Al Qaeda Iraq or Al-Qaeda in the Land between the Two Rivers.

⁵ NDRC, 2006; Merrill Lynch, "Beijing To Get Tough on Illegal Power Supply." February 14, 2005, p.3.

⁶ Wang Yichao, "Who is to Blame in South China's Oil Shortage?" *Caijing*, August 25, 2005 (Chinese); Keith Bradsher, " Are fuel shortages in China man-made?" *International Herald Tribune*, August 18, 2005, p.15.

⁷ For a more detailed institutional review of power reform, refer to E.J.W. van Sambeek, "Institutional Framework of the Chinese Power Sector," (ECN-C--01-071), Energy Research Centre of the Netherlands, October, 2001.

⁸ Zhongguo jingji jingqi jiance zhongxin (ed.), *China's Industrial Map—Energy*. Beijing: Social Sciences Academic Press (Zhongguo chanye ditu – nengyuan 2004-5, Beiijing: Shehui kexue wenxian chubanshe), 2004, p.64.⁹ Jack S. Levy, "An Introduction to Prospect Theory," *Political Psychology*, Vol. 13, No. 2, (June 1992), pp. 171–86.

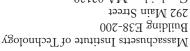
⁹International Energy Agency, World Energy Outlook 2004 (Paris: IEA), 2004, p.193.
10Luo Gan, "Explanation of Plan for Institutional Restructuring of the State Council," Ta Kung Pao, March 7, 1998 (in FBIS, DR/CHI, March 10, 1998, 98-068); Cheng Li, "China in 1999: Seeking Common Ground at a Time of Tension and Conflict," Asian Survey, 40:1 (2000), p.122.

¹¹ Interview, Beijing, July 21, 2006.¹² Steve Clemons, "Land of the Free?" *New York Times*, March 31, 2004.

¹² Email communication with US EIA staff, December 20, 2005; US DOE website.



MIT CENTER FOR INTERNATIONAL STUDIES



Cambridge, MA 02139

PSB 07-04-0172

Edward A. Cunningham MIT Political Science



ONAL CENTER



STUDIES C

C O

March 2007

0 G

O

of the Conventional Wisdom