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## Energy reform: moving from administration to regulation

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SOEs should be taken from the executive and given to the congress. The higher levels of power should be reformed at a “constitutional level” (宪政层面, *xianzheng cengmian*), and the management of the SOEs must revert to the people. Sheng’s idea here, it should be noted, is definitely intended to be applied beyond the sphere of public companies.

All the writers think SOEs should be reformed as quickly as possible. Some are more forceful than others both in criticising and in recommending action. But they all agree that the subject should be thoroughly debated, and that the process of reform should get under way after the 18<sup>th</sup> Congress.

#### 4. Energy reform: moving from administration to regulation

by Marie-Hélène Schwoob

Sources:

Yang Fuqiang, “The energy system is in urgent need of new reforms”, *Caixin-Zhongguo Gaige*, 1 September 2012.<sup>17</sup>

Yang Mingzhou, “Yang Mingzhou: five key points to ensure our country’s energy security”, *Zhongguo Gaige Wang*, 17 July 2012.<sup>18</sup>

#### Towards “sustainable development” of energy

China’s model of rapid economic development has had plenty of successes since the start of this century. But rapid growth has caused the country’s energy needs to increase, and China’s energy security is now at significant risk. Yang Fuqiang says that by 2009, China had become the world’s leading consumer of energy. By 2011, it accounted for more than 20 percent of global primary energy consumption.

China has faced challenges related to growing energy consumption before. Yang Fuqiang says that at various points between 1950 and 1980, the country experienced serious energy shortages. Post-Maoist reforms enabled a dramatic increase in production, but they did not permanently solve China’s energy problems. So, in the early 2000s, growth in the country’s power needs meant that China again found itself with insufficient energy. Since then, China has invested significant amounts in energy. Yang Fuqiang says that between 2001 and 2010, China invested 14,500 billion yuan in the energy sector, which enabled capacity to be doubled. The energy market has been reformed, and along with trying to improve supply, the country is also seeking to slow down growth in domestic demand. To do this, China is promoting energy efficiency, which is now a mainstay of the country’s energy strategy.

Both Yang Fuqiang and Yang Mingzhou point out that China has other energy challenges besides security of supply. Climate change, environmental degradation, and resource depletion are also factors in the energy equation, which the authors formulate as the “question of sustainable development of energy” (能源可持续发展的问题, *nengyuan kechixufazhan de wenti*).<sup>19</sup> In recent years, the central

<sup>17</sup> Yang Fuqiang is a senior advisor on environment, energy, and climate change at the NRDC (Natural Resource Defense Council), which is a US-based NGO specialized in environmental protection.

<sup>18</sup> Professor Yang Mingzhou is a senior engineer specialising in energy at the State Electricity Regulatory Commission.

<sup>19</sup> Yang Fuqiang notes that although the growth rate of China’s carbon emissions remains unchanged, the country will by 2020 be responsible for between 25 percent and 28 percent of global emissions. This would

government has been trying to alter policy to meet these new challenges, and these issues were taken into account in drafting the 12<sup>th</sup> Five-Year Plan (which covers the period 2011-2015). The government set targets of a 16 percent reduction in energy intensity and a 17 percent reduction in carbon intensity (consumption/emission per unit of GDP). And it laid down various goals for integrating carbon-free energy into the energy mix. But the writers say that serious problems remain.

Yang Fuqiang says that the reforms carried out in the past 30 years cannot ensure environmental protection. He thinks the goals of the 12<sup>th</sup> Five-Year Plan will be difficult to achieve. In 2011, there was only a 2.01 percent improvement in energy savings – not particularly hopeful in light of the goal of a 17 percent reduction within five years. Even if the energy intensity and carbon intensity reductions in the 12<sup>th</sup> Five-Year Plan were reached by 2015, Yang Fuqiang says that energy consumption would still have increased by 26.2 percent over 2010 levels, and CO<sub>2</sub> emissions would have grown by 17.7 percent.

### **Market and institutional reforms**

The writers agree that China must urgently develop a new energy resource structure that is “clean and low in carbon” (能源结构的低碳化清洁化, *nengyuan jiegou de ditanhua qingjiehua*). They make several proposals for ways to bring this change about. Yang Mingzhou says the slowdown in the economy should reduce pressure on energy consumption. The government should take advantage of this temporary downturn to adjust the country’s energy mix and reach the goals of 11.4 percent of non-fossil energies by 2015 and 15 percent by 2020.<sup>20</sup> Both writers suggest that the Chinese economic model should itself be reevaluated. Yang Fuqiang thinks the energy and carbon intensity reduction efforts could be good starting points for the transformation of China’s economic model. Yang Mingzhou thinks the Chinese government should coordinate its economic and energy development. It needs to set a “reasonable” pace of development and work to promote appropriate modifications to the Chinese economic model.

#### Yang Mingzhou recommends restarting the market

put it in a difficult situation in international negotiations on climate change. China’s energy mix is particularly to blame in emitting pollutants and causing atmospheric pollution. In 2011, according to Yang Fuqiang, 70 percent of energy came from coal, and less than 8 percent from renewable energies.

<sup>20</sup> Yang Mingzhou makes a number of recommendations on specific ways to adjust the energy mix. In hydropower, he thinks standards should be unified and construction coordinated to improve ecological protection. To deal with population resettlement, mechanisms for public participation and compensation should be set up and land laws reformulated. In renewable energies, the government should create policy to support technological innovation rather than large-scale manufacturing. Infrastructure should be developed for the transformation, transport, and stockpiling of natural gas, and shale and coal seam gas should be developed. In nuclear energy, security and control standards should be tightened and China should advance into the future as one of the leading countries in the world for innovation.

reforms that got under way a few years ago. Breaking up the monopolies of the major state-owned enterprises, separating transport and distribution of electricity, and liberalising (electricity) markets should enable the creation of transparent price-setting mechanisms. This would help to ensure resources are allocated efficiently and would improve the country’s energy system. He points to market reforms carried out in Europe and the United States, which have provided for “green” and carbon emission quotas trading. He says that this system has already proven its effectiveness by changing the energy structures of some countries.

For these reforms to take place, several institutional problems need to be resolved. The National Energy Bureau is the administrative authority in charge of the national energy programme. But Yang Fuqiang says that the bureau’s functions, including setting prices, overlap with those of other administrative entities under the authority of the National Development and Reform Commission (NDRC). He points to a lack of coordination, duplication of effort, and an absence of clarity in allocating responsibilities. He says that institutional reform would not only help institute an energy security strategy, but would also cut administrative costs.

Yang Mingzhou thinks the main obstacle facing the regulatory system is the fact that regulators carry out political tasks as well as their monitoring duties. This diminishes both the availability and the integrity of the people in charge of regulation. To fix this, the writer says China must radically reform its institutional system.

Yang Fuqiang says the energy bureau does not have the authority to limit the power of the state-owned oil and electricity companies or to control the erratic behaviour of local actors. Yang Mingzhou says construction and investment in the energy sector is chaotic. In some parts of the country, investors and producers are expanding too quickly, and in other regions, energy sector actors are just not interested in developing capacity. He thinks local practices are still project-driven and opportunistic and do not follow central government policies. This makes coordination difficult, particularly in implementing the central government’s policies on environmental protection.

### **The shape of a new institutional energy system**

Yang Mingzhou says some people are recommending the creation of an energy department, just as they did before the creation of the National Administration of Energy in 2008. He says the key question is not when the institution will be established, but instead, what form it will take. One possible option would be to create an independent commission for regulating energy alongside an energy ministry. Yang Mingzhou says successes abroad prove that having a body responsible for coordination and supervision ensures sustainable development of energy, improvements

in service delivery, regulation of the economy, and optimal allocation of resources. In order to avoid conflicts of interest, the experts on the regulatory commission should not be chosen from government agencies, nor should they exercise any political function or have any political power. Their only concern should be driving the modernisation of the institutional framework, with the long-term goal of providing sustainable development of energy and ensuring energy security consistent with market-driven logic. Institutional reform should streamline the overlapping functions that have existed for decades between different departments. And it should solve the problems of shared responsibilities and recurring institutional squabbles.

Yang Fuqiang also recommends the creation of independent bodies for regulation and monitoring. Along with the regulators, a national department of energy (国家能源部, *guojia nengyuan bu*) should be constituted under the authority of the State Council, to take

Successes abroad prove that having a body responsible for coordination and supervision ensures sustainable development of energy, improvements in service delivery, regulation of the economy, and optimal allocation of resources.

responsibility for energy supply, carbon emission reduction, and the management of state enterprises. He thinks the independent regulatory bodies should eventually be able to self-audit. Until then,

Yang Fuqiang says the existing regulatory bodies should be freed from oversight. As it stands, the State Electricity Regulatory Commission is under the authority of the NDRC and the National Nuclear Safety Administration comes under the remit of the Ministry of Environmental Protection. Instead, Yang Fuqiang says, they should be directly supervised by the State Council.

Yang Fuqiang suggests that another commission, distinct from the one in charge of regulating electricity, should regulate the gas and carbon markets. He also thinks the legal framework for energy needs to be reformulated. The lack of a solid legal framework has led in the past to a proliferation of administrative decrees and, whether by promoting law breaking or by passivity, has encouraged people to bypass the law.<sup>21</sup> So, China should enact an “Energy Law” (能源法, *nengyuanfa*) that would guide activities in the sector until 2020. The writer says that every province and large city should set up a department in charge of dealing with climate change issues.

There are few articles in the Chinese press that lay out such unambiguous positions on the reform of the energy system as these. But it seems clear that the major issue in the energy debate at the 18<sup>th</sup> Party Congress will be institutional reform.

The current system is beset by incomplete market reforms, state enterprise monopolies, lack of transparency in price setting, and lack of clarity in allocating administrative functions and responsibilities. These arguments seem to point to a necessity for comprehensive reform and the creation of regulating institutions that are more powerful than existing administrative channels and their vested interests.

**Translation: Peter Brown**  
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<sup>21</sup> For instance, it has turned a blind eye to the establishment of polluting companies that contribute to an increase in GDP.