China's Energy Rise and the Future of U.S.-China Energy Relations

Mikkal Herberg, Research Director, Energy Security Program
The National Bureau of Asian Research

June 2011

China is gradually emerging as a new superpower in global energy markets and energy geopolitics. This reflects the enormous scale of China's current and future energy and oil consumption, Beijing's growing energy investments abroad and expanding energy diplomacy, its rising carbon emissions, and China's emergence as a global leader in clean energy technology development.

The scale of China's energy expansion is quite breathtaking. For example, in the decade to 2010, the increase in China's energy consumption added the equivalent of two Latin Americas to global energy demand.[1] China is now the world's largest energy consumer exceeding U.S. energy consumption which had led the world for over half a century. China's oil consumption doubled in the decade of the 1990s and doubled again in the decade to 2010, making it the second largest oil consumer and importer after the U.S. In 2000, China represented only 6% of global oil demand but it has accounted for nearly one-half of global oil demand growth over this past decade and is now the largest vehicle market by annual sales. It is by far the largest coal-based economy, in 2009 consuming three times as much coal annually as the U.S., the second largest coal user. The increase in China's coal consumption over just the past five years added the equivalent of another U.S. to world coal demand. Not surprisingly China recently surpassed the U.S. as the largest greenhouse gas emitter. On a more positive note, China also is now by far the leader in investment in clean energy and renewables, in 2010 accounting for roughly one-half of global investment in clean energy.[2]

Hence, China is on a trajectory to potentially reshape the global energy and oil landscape in the same way its broader "peaceful development" seems likely to transform the global economic and strategic landscape. This growing energy importance is a product of the convergence of the scale of its expanding impact on global energy markets with its broader economic and political rise. Growing dependence on imported energy and Beijing's efforts to secure those supplies and transportation routes to deliver them are accelerating China's international political and economic engagement and influence and, at the same time, are reshaping Beijing's vital global economic and energy interests. The last time this happened was in the early postwar period when the rise of American oil demand and import dependence converged with America's growing strategic power to thrust the U.S to the forefront of global energy markets and geopolitics.

China's "energy rise" poses similar dilemmas for the U.S. and the established Western-dominated energy institutions and market structures as its broader economic rise poses for global strategic and economic relations. In energy terms, will China emerge as a status quo or as a "revisionist" power? And what does this mean for long-term U.S. energy security and global energy interests? The U.S. has been the superpower of global energy just as it has been in strategic and economic affairs. The U.S. consumes nearly one-quarter of daily world oil production, is the third largest oil producer, the largest electricity and total vehicle market. The U.S. is home to many of the largest, most powerful and sophisticated global oil companies. The U.S. has been the dominant strategic power in the key petroleum exporting regions, most importantly, the Persian Gulf and the U.S. Navy and military dominate the sea lanes and airspace that are vital to global oil production and transportation. The current structure of global energy institutions and energy security arrangements have been established under the U.S.-led post-war liberal order and energy "Pax Americana".

China's growing global energy clout will evolve in the context of these existing global oil and energy market structures, institutions of multilateral energy cooperation, and U.S. strategic power created under U.S. leadership over the past 50 years. So the question is will China use its growing market power and diplomatic influence to support the existing open and flexible global oil and energy market arrangements, support western efforts to stabilize key exporting regions, and join in multilateral energy governance institutions like the IEA established under U.S. leadership? Or will it continue along its "go-it-alone" path of seeking privileged access to energy supplies through close collaboration with its national oil companies (NOCs), bilateral rather than multilateral energy and financial diplomacy, and a politicized approach to securing oil supplies? In short, will Beijing's energy path be through markets or mercantilism?

Broadly speaking, energy decisions made in Beijing will be influential along five important dimensions of the global energy outlook. First, China has replaced the U.S. as the engine of global oil demand growth and, therefore, Beijing's decisions on future oil use, vehicle efficiency, the growth of its mushrooming vehicle industry, and managing its growing oil import dependence are now deeply consequential for world oil prices and the energy security of the U.S. and other major oil importing countries. Second, Beijing's strong instinct for a statist and political approach to ensuring its energy security and oil import needs through national ownership of "equity oil" and promotion of its national oil companies (NOCs) is strongly at odds with the west's focus since the oil shocks of the 1970s on increased oil investment globally and a more flexible and integrated global oil market as the basis for energy security rather than a national competition to control supplies. Third, China's global energy geopolitical footprint and potential influence is expanding with its large petroleum investments, long-term supply deals and huge state bank loans, and active energy and pipeline diplomacy. China has become or is likely to become a key diplomatic player in most major oil and gas exporting regions of the world. How will China use its growing capability to influence developments in these critical regions? Fourth, China has become a central player in carbon emissions and global climate negotiations. Beijing's choices on its future coal use, on finding a successor to the Kyoto Protocol or instead to pursue a strictly national approach to carbon and climate is central to future climate change outcomes. Finally, China has emerged as the global leader in future renewable energy technologies through its huge investments and development incentives. Beijing's decisions on cooperation in developing these industries, control of those technologies, and their potential role as a new "strategic industry" will have important renewable energy trade and technology implications.

U.S. Energy Primacy is Coming to an End

As the dominant oil market driving force, rule-maker, institution-builder, strategic power, and technology leader in global energy, the U.S. has major stakes along all these dimensions of rising Chinese energy power and influence. As noted energy expert John Mitchell has written, "For every issue on the energy geopolitical agenda, there is at least one telephone line to Washington." However, China's growing role in global energy affairs, particularly oil markets and governance, means that the U.S. will no longer be the unipolar energy power.

At the same time, the power of the U.S. to shape global energy affairs is eroding. Other powers besides China, including Russia, Saudi Arabia, India, Brazil, and Kazakhstan are moving towards a more statist and bilateral approach to energy investment and are creating new alliances among themselves and with China to exploit energy resources and to trade energy on much more "dirigiste", political terms. National oil companies (NOCs) from large producer countries and NOCs among the oil-consuming Asian powers, especially China, increasingly are working together and bypassing the large, technologically sophisticated U.S.-based international oil companies (IOCs) that have dominated global oil and gas investment and technology for the past 50 years. This trend is accelerating as the source of global petroleum demand shifts to Asia and China and as their supplies come from an increasingly concentrated group of Persian Gulf oil and gas producers.[3] While the IEA remains the key institution in framing multilateral cooperation among the rich OECD countries to manage potential global oil supply disruptions, the relevance of the IEA is being weakened by the absence of rising oil importers such as China and India.

Moreover, the domestic underpinnings of support for the global strategic role for the U.S. in the Middle East and key energy exporting regions are weakening under the pressure of the domestic budget and debt crisis and political fatigue from two major wars. The "lead from behind" U.S. approach to the Libya crisis demonstrates quite clearly that the U.S. no longer has the domestic political support or the seemingly unlimited military resources for new adventures in the Middle East energy exporting region. Also, the recent political upheaval among a number of key Middle East oil producers suggests that the entire historic underpinnings of America's regional alliances, friendly governments, and political arrangements largely established under U.S. strategic and economic power in the region is also eroding. Even the pivotal U.S.-Saudi strategic alliance is looking deeply strained as the U.S. neglects this key long term relationship and as the Saudis look east to China and Asia for their future market growth. On climate change, the inability of the U.S. and the Obama administration to forge a domestic consensus on carbon and climate policy has dramatically weakened the ability of the U.S. to shape future global climate negotiations. Finally, severe budget constraints and domestic political gridlock are hampering the ability of the U.S. to promote new clean and renewable energy technologies even as China moves forward to capture much of that technological high ground.

The Changing Shape of Global Energy Geopolitics

If the era of U.S. primacy in global energy affairs is receding, then in what direction are we headed? One is tempted to suggest that we could be moving toward a U.S.-China "E-2". Certainly in raw energy terms this is true. The U.S. and China are by far the two largest oil markets and oil importers and account for 60% of annual world oil demand growth; two of the four largest oil producers; the two largest vehicle markets accounting for over 40% of global vehicle sales; the two largest global oil investors; by far the two largest coal consumers; the two largest electricity consumers; the two largest carbon emitters; and the two largest innovators of clean and renewable technologies. No other country comes even close. The U.S. remains the strategic superpower, security provider, and balancer in some of the key petroleum producing regions,

most importantly the Persian Gulf, but China seems likely to eventually become an important factor in these regions, either by necessity or design. The U.S. has led the development of today's multilateral energy institutions and free energy markets while Beijing and its NOCs have become the leaders in a more national "China Energy, Inc." approach to seeking its energy security.

So if the U.S. and China clearly are the world's raw physical E-2, what does this mean for U.S.-China energy cooperation, and for global oil markets, energy diplomacy, climate negotiations, and clean energy development? In a previous analysis, this author argued that a strong U.S.-China energy partnership will be needed if we are to address many of our key global energy challenges.[4] Despite strong bilateral distrust over a range of global energy challenges, the fact is that China and the U.S. have enormous common interests in more stable, affordable, reliable, and cleaner global and domestic energy supplies. This is particularly true in oil markets. These are goals that cannot be achieved unilaterally. Disruptions in oil supplies and price spikes impact every economy regardless of where their particular oil supplies originate. China gets roughly one-quarter of its total oil needs from Persian Gulf suppliers and this share is rising, while the U.S. gets barely 10% of its oil from the region and this share is declining. Yet both countries have equally important common strategic and economic interests in preventing a major supply disruption from the Gulf that would drive world oil prices dramatically upward and damage global economic growth. The recent disruption in Libyan oil supplies and political turmoil on the margins of the Gulf producing region and resulting rise in prices demonstrates that in terms of energy security it doesn't really matter where you source your oil, what matters is whether there is enough oil being produced globally to meet world demand. The tighter the global supply and demand balance, the higher prices will go. The critical challenge is finding ways to encourage greater investment in new supplies, reduce the chances of supply shortfalls and major political disruptions, and preventing damaging price spikes.

Put somewhat differently, given the scale of the U.S. and China along all the key dimensions of global energy use and power, can we meet these global energy challenges without strong cooperation between the U.S. and China? It seems unlikely. The Copenhagen Climate Change meeting provides a crisp example. The single dispute that did more to prevent greater progress on moving climate negotiations forward was the fundamental disagreement between the U.S. and China over each other's commitments and responsibilities. Without that agreement there was virtually no chance of reaching a global or major power consensus on the issues.

Despite strong bilateral distrust over a range of global energy challenges, the fact is that China and the U.S. have enormous common interests in more stable, affordable, reliable, and cleaner global and domestic energy supplies.

Therefore, much will depend on the character of the energy relationship between China and the U.S. Nevertheless, despite its desirability, establishing something resembling an E-2 seems likely to be elusive. China and the U.S. continue to have fundamentally different world views about energy security and how to achieve it. Beijing's political leaders see energy security in distinctly national terms of establishing national control over energy resources and transportation routes. It is a decidedly "19th Century", mercantilist agenda. Maintaining adequate, reliable, and growing supplies of energy is viewed as indispensible for ensuring rapid economic growth, job creation, and social and political stability; i.e. the continued claim to legitimacy to rule by the Communist Party. Beijing's political leaders have little faith in global energy markets to ensure adequate, reliable, and affordable energy to China: energy is simply too important to be left to the markets. Despite

gradual market reforms, state control and intervention remain central to China's approach to energy security. Alternatively, the U.S. has built its conception of energy security over the past 40 years on an international energy structure based on integrated and transparent global markets, competitive pricing, private investment, private technological innovation, and multilateral cooperation. To paraphrase former President Bill Clinton, "it's the market, stupid". So each country views energy security through very different prisms.

Moreover, the potential to view our energy security problems as shared challenges continues to be undermined by the chronic overlay of distrust at a strategic level. Beijing's leaders suspect that the U.S. seeks to use its energy vulnerabilities as part of a broader effort to contain China. Criticism of the impact of China's overseas oil investments in pariah states and elsewhere is seen as a cynical ploy to weaken China's access to vital oil supplies. Pressure from Washington to reduce carbon emissions is seen as a thinly veiled attempt to slow China's economic growth and frustrate it from achieving its rightful economic role in the world. Washington, on the other hand, sees China's energy expansion globally as built on predatory collaboration between Beijing and its national oil champions to carve out privileged access to petroleum supplies, an approach that many believe undermines future U.S. access to needed supplies. This strategic suspicion casts a pall of a "zero-sum" atmosphere of national competition over energy access and security that is repeatedly reinforced by rhetoric on both sides. The 2005 episode when China's CNOOC sought to acquire Unocal and was forced to withdraw its bid due to a firestorm of criticism of China's strategic energy intentions epitomized the toxic mix of bilateral energy suspicions and mirror-imaging.

Further, to the extent that the U.S. might encourage China to take a stronger leadership role on global energy security cooperation, it is still very unclear what role Beijing would want to take on the world energy stage. This is a corollary to the broader lack of clarity over what role Beijing wants to play in other global issues, from currencies to nuclear proliferation. Beijing remains largely inwardly focused and driven by its domestic search for stability, economic development, and territorial integrity. Consistent with its traditional broader foreign policy of "keeping a low profile", Beijing has shown relatively little serious interest in multilateral energy cooperation.[5] Conversely, assuming China were to show interest in a strategic energy partnership, it is not clear to what extent Washington is truly ready for a "shared global energy partnership". This would require accommodating very different Chinese views on the role of energy markets and pricing, policies toward key petroleum producers and regions, the role of the IEA and multilateral cooperation, and responsibility for reducing carbon emissions. Washington tends to view a partnership as China simply joining in and becoming enmeshed and integrated into a set of U.S.-sponsored and led energy institutions and policy agendas established by the west. This is highly unlikely to be acceptable to Beijing's leadership.[6]

Another underestimated constraint is the limited institutional capacity in either Washington or Beijing to carry out a strategic discussion on energy. It's not clear who would be talking to whom. Beijing's energy policymaking agencies, the National Energy Administration and the NDRC, are extraordinarily thinly spread and are not really at the center of decisions on China's overseas oil and gas acquisition and investment strategy, its regional foreign policy, or decisions that drive oil demand and security. China's NOCs and the State Council are at the center of the major policies in those areas. Energy policymaking in China is deeply fragmented and horizontal coordination is very weak. In Washington, much of the same description applies. While there is the huge Department of Energy this is largely geared to work at the expert and technical level regarding clean energy, renewables, and other new energy issues rather than strategic concerns. The State Department has established several new middle level positions to focus on energy security concerns but still has

very limited ability to support such a strategic energy dialogue. Policymaking is diffuse and fragmented. Edward Morse, one of the most trenchant energy analysts today, has described the U.S. international energy policy as "mostly brawn, not much brain".

What seems more plausible, then, is something more like an approaching "E-Zero" era of energy geopolitics, to borrow from Eurasia Group's Ian Bremmer.[7] China's raw global energy impact, the gravitational force of its booming energy and oil demand, and its global energy footprint are growing rapidly. In energy, as in a growing number of other policy arenas, China is simply too big to stand on the sidelines any longer. Yet there is little evidence Beijing is ready to take on broader international responsibilities to help strengthen multilateral energy cooperation, working to maintain the open energy markets that have helped fuel Chinese economic prosperity, and working collaboratively towards stability in key energy exporting regions, most importantly the Persian Gulf. Beijing remains intent on a decidedly national and narrow view of its energy security. But U.S. power to shape and sustain an open and stable global energy environment is clearly on the wane and, in any event, it isn't clear the U.S. is ready to share leadership in a way that would be sufficiently meaningful to Beijing.

In the meantime, global oil markets are tightening sharply again: supply growth is slow and structurally constrained, oil demand growth has resumed, and oil prices are rising dramatically threatening the fragile global economic recovery. Other rising petroleum powers and big importers, including Saudi Arabia, Russia, Brazil, Kazakhstan, Iran, Venezuela, and India, are driving the development of an increasingly statist, politicized, and balkanized global oil market.

Seeking Common Ground While Managing Competition

In this context the future energy relationship between Washington and Beijing seems more likely to reflect a continuing mix of cooperation and efforts to seek common ground coexisting with arenas of competition, distrust, and tension. Our energy relations seem destined to parallel the path of broader Sino-American relations.

In energy, as in a growing number of other policy arenas, China is simply too big to stand on the sidelines any longer. Yet there is little evidence Beijing is ready to take on broader international responsibilities.

The most constructive arena of U.S.-China energy relations has been cooperation on jointly developing cleaner energy sources, new renewable energy technologies, and new ways to improve energy efficiency. But even in the area of clean energy technology, there is a mix of cooperation and hard-nosed competition. The push toward renewable and cleaner energy technologies fits well with the inclinations and institutions of leadership in both Washington and Beijing and responds to their common challenges of heavy dependence on carbon, coal, and oil-intensive energy sources. For Beijing's leadership, renewables and electric vehicle development promise to create new, incremental supplies to respond to their growing fears over their basic ability to provide enough energy to meet booming energy demand while also reducing air pollution from China's heavily coal-based economy. Improved efficiency will be critical to slowing the need to mobilize enormous, ever increasing supplies of energy to fuel economic growth. Moreover, improved efficiency and renewable energy give Beijing a pathway to reducing the carbon intensity of their economy that makes it possible for Beijing to show it is responsive to global pressure to do something about China's rising carbon emissions. Finally, Beijing sees renewable and clean energy technologies as major future potential export and growth drivers for China's economy. The Obama administration is driven by many of the same concerns. It also sees electric vehicle technology as a way to

reduce long-term oil import dependence and strengthen energy security, as does Beijing.

So collaboration and joint development has been seen as a potential "win-win" scenario for both. This collaboration began under the Republican Bush Administration in 2008 with the United States-China Ten Year Framework for Cooperation on Energy and Environment that emerged from that administration's Strategic Economic Dialogue (SED) and has expanded under the Obama administration and the new Strategic and Economic Dialogue (SAED). Recent U.S.-China summit meetings have resulted in the creation of a broad range of cooperative initiatives to develop and spread new energy technology. The most significant has been the creation of the United States-China Clean Energy Research Center (CERC) jointly funded at $150 million and with headquarters in both countries. Other initiatives cover building efficiency, carbon capture and storage, new vehicle technologies, collaboration on developing shale natural gas deposits, and a wide range of other "green" initiatives.

However, this constructive aspect of our energy relationship has more recently taken on an increasingly competitive atmosphere that pitches Chinese and U.S. clean energy interests in much more competitive terms. There has been widespread concern expressed in Congress and elsewhere that China is "winning the race" to develop clean technologies and that much of the trade advantage and manufacturing growth from these technologies is ending up in China. China has aggressively targeted gaining a strategic trade advantage in these technologies and the higher value employment they create through a series of questionable trade and industrial practices. The scale of China's clean energy subsidies and protection of their domestic industry has been a growing source of bilateral tension with the U.S. as well as Europe. At the sharpest point of these concerns, after complaints from the United Steelworkers Union that China was unfairly subsidizing its wind and solar equipment producers, the Obama administration filed a WTO case against China in December 2010. So even where bilateral cooperation on energy is blessed at the highest level, efforts to sustain that collaboration will be needed in an increasingly competitive global trade environment.

Managing Future Energy Tensions

Strong cooperation on clean energy has not yet done much to instill confidence more broadly into the strategic energy relationship or about each other's long-term energy intentions and interests. On the issues of energy security, energy diplomacy, and climate policy, deep differences remain unbridged and the path of energy relations going forward seems likely to be much more challenging.

Competing Visions of Energy Security

On the vexing challenge of energy security there remains a major contradiction between the common energy security challenge that the U.S. and China both face and the deeply divergent approach that each takes toward the challenge. The inability to work together on this common problem concedes the advantage to producer governments who can take advantage of the fractious and uncoordinated response of the two largest oil importers to their anxieties over reliable supplies of crude oil. The common problem is clear: as the two largest oil consumers and importers China and the U.S. have a fundamental common interest in working together to find ways to boost global oil production, strengthen investment in new oil supplies, to encourage an increasingly diversified geographic spread of new oil suppliers, to strengthen the security of sea lanes and critical transport bottlenecks around the globe, and to collaborate in building strategic oil stocks and coordination mechanisms in the case of major oil supply disruptions which are virtually inevitable over time. Global oil markets are tightening and prices are rising well above $100 a barrel and are likely to continue rising as demand increasingly bumps up against a structurally weak global oil supply picture. Both countries are by far the most exposed to the increasing costs and worsening reliability of global oil supplies. These mutual interests are so profoundly obvious

that the lack of collaboration on this between the two governments is frankly stunning. The lack of coordination between the two leviathans of the oil market leaves their energy security to the tender mercies of a chronically unstable global oil market and a group of politically unstable, often corrupt, economically mismanaged, and increasingly geographically concentrated group of oil exporters that are quite happy to exploit this to increase revenues.

Beyond the different prisms through which each leadership sees energy security, other aspects of each's current approach to energy security further reduce the potential for working together. The U.S. Obama administration lacks any serious, near or medium-term strategy on oil and energy security and isn't philosophically or organizationally inclined to seek a more active global energy security strategy that would engage China and other major importers at a high level. The Obama administration came to office with a laudable "green" energy agenda of accelerating renewable energy development and, relevant to the oil side of the equation, accelerating development of electric vehicles and battery technology. Its vision of energy security is to move away from oil, coal, and traditional fossil fuels toward more reliable, domestically-produced green energy technologies. It launched the Major Economies Forum for Energy and Climate in mid-2009 which tackles climate change and clean energy cooperation multilaterally in a group of 17 major economies. Unfortunately, the green revolution will take at least 20 years to make any serious difference in the need for oil and reduce the importance of global oil market stability. When the administration does talk about more near and medium-term energy and oil security, it remains mired in the domestic dialogue of "energy independence" and professes an aim of reducing dependence on imported oil and completely eliminating imports of Middle East and Venezuelan oil. In the next 20 years, this is simply not a serious strategy given how central imported oil will remain to U.S. transportation needs and economic prosperity. But there doesn't seem to be an appetite in the Obama administration for an activist global energy security strategy at the leadership level that could potentially enlist a stronger sense of common purpose and collaboration with China.

The lack of coordination between the two leviathans of the oil market leaves their energy security to the tender mercies of a chronically unstable global oil market and a group of politically unstable, often corrupt, economically mismanaged, and increasingly geographically concentrated group of oil exporters.

On Beijing's side, there are also added constraints on the potential to collaborate. Beijing's political leadership sees energy security in terms of national, physical control of overseas oil supplies owned or controlled by China's NOCs and control of pipeline infrastructure and sea lanes bringing supplies directly to China. But China's approach is mercantilist in deeper ways that help explain the persistence of an energy security policy that is inadequate to meet China's real global energy security dilemma. China's oil import needs are rising at three times the rate that its NOCs can acquire or develop new overseas producing assets.[8] Most of their overseas production is not exported back to China rather it is sold into local and regional markets to benefit from the best available netback value of their production, just like other international oil companies. For a whole range of reasons the benefit of nationally controlled oil supplies perceived by China's leadership as a form of energy security isn't really effective in the real global oil industry of today.

This raises the question of how to explain the persistence of leadership beliefs in the NOC-based energy security strategy? The answer is that what appears to be a

mercantilist energy security strategy has gradually evolved into what is, in reality, a mercantilist industrial policy aimed at building oil industry "national champions". This is a key distinction between leadership perception and oil industry reality. The Chinese political leadership seems to believe that its state support for the expansion of its NOCs abroad is ensuring or "locking up" more secure future oil supplies for China. However, in practice China's NOCs are investing and operating largely driven by the same commercial, competitive, and global oil market imperatives as the IOCs.[9] Ironically, this is linking China's oil security ever more closely to global oil market supply, demand, and price conditions rather than directly ensuring national physical control of sufficient future oil supplies to meet rising demand.

Beijing's political leadership sees energy security in terms of national, physical control of overseas oil supplies owned or controlled by China's NOCs and control of pipeline infrastructure and sea lanes bringing supplies directly to China.

Where the leadership's perceptions and the commercial interests of the NOCs do converge is the extensive direct political and financial support Beijing provides their NOCs to get ahead, i.e. to "catch-up", in the highly competitive global oil industry. To outside observers and oil company competitors this collaboration, whether state or NOC-led, has all the markings of "China Energy, Inc." Nevertheless, what the leadership perceives as an energy security policy is, in practice, more an outcome of Beijing's reflexive reliance on industrial policies and strong state support to build global national champions, as it does in other industrial sectors, from vehicles to the electronics industry to clean energy to the nuclear industry.

The persistence of this approach is reinforced by other industries and bureaucracies which have learned to use the language of energy security to promote state support for their own global competitive advantage. For example, the Chinese tanker/shipbuilding industry has convinced the leadership that Chinese oil and natural gas imports will be more secure if carried on Chinese tankers, therefore justifying subsidies and cheap loans.[10] As Erica Downs suggests in an excellent recent Brookings report, the China Development Bank (CDB) has strong converging interests with China's NOCs insofar as large loans to support NOC overseas investments and loans to secure long-term oil and gas supply arrangements from key exporters like Russia, Brazil, Kazakhstan, Turkmenistan, Venezuela, and others, all handled through China's NOCs, provides the CDB with badly needed credit-worthy opportunities to lend out its huge hoard of Chinese state foreign assets.[11] The PLA Navy (PLAN) has also begun to cast security of China's energy sea lanes as an increasingly vital PLAN mission helping to promote growing budgets. In some cases even provincial governments have employed the language of energy security to help promote provincial economic development, such as Yunnan's promotion of an oil import pipeline across Myanmar, which in reality was mainly aimed at boosting Yunnan's provincial economy.[12]

This suggests that the prevailing NOC-based, mercantilist character of China's energy security policies is more deeply rooted than commonly understood. It is industrial policy masquerading as an energy security strategy. And a wide range of important industrial, financial, and bureaucratic interests have a stake in continuing along this path.

Consequently, it's not surprising that even as Beijing builds its own strategic oil stocks for national use, it has shown little interest in joining in the International Energy Agency's emergency oil stocks program and becoming entangled in the IEA's rather tortuous multilateral consultation process over releases of strategic oil stocks. Combined with the lack of engagement on global energy security strategic diplomacy in the Obama administration

this suggests that forging a common U.S.-China working consensus at the leadership level on their common multilateral energy security challenges is likely to remain elusive.

Despite these divergent interests and poor atmospherics, there have been at least a few signs that progress on a more cooperative, "win-win" approach to energy security and investment is possible. For example, the toxic outcome of the CNOOC-Unocal debacle in 2005 strongly reinforced Beijing's suspicions that the U.S. viewed oil security and investment as an arena of strategic competition between the U.S. and China and convinced Chinese NOCs that they were not welcome in the U.S. oil patch. China's NOCs have since avoided seeking any new investments here. Recently, however, CNOOC invested in two large tracts of U.S. shale gas properties in a joint venture with Chesapeake Energy. Shale gas development is a huge and booming sector of the U.S. energy industry and CNOOC clearly would like to acquire the know-how of shale gas development to take back to China. CNOOC was able to make those investments with virtually no reaction in Washington DC which suggests that some of the political hysteria on Capitol Hill and elsewhere in Washington DC about investments by Chinese state-owned NOCs may be easing. It would not be surprising to see other Chinese NOCs following CNOOC's lead in the U.S. which could help further ease nationalistic concerns over the aims of the Chinese companies. The Challenge of Energy and Regional Diplomacy: Beijing's energy security drive is accelerating its emergence as a regional and global power. With expanding investments, oil import and LNG supply deals, and active pipeline diplomacy, China will inevitably become a key diplomatic and economic player in virtually every major oil and gas-exporting region of the world. Historian Niall Ferguson talks about this as China's evolution towards an "inadvertent" empire.[13] As its presence and interests in these areas expands China also will increasingly begin to occupy strategic space that has traditionally been dominated by the U.S. From the Persian Gulf to Central Asia to Southeast Asia and Latin America, U.S. and Chinese energy and strategic interests will more and more often bump up against one another. Also, Beijing's concerns about its growing dependence on seaborne oil and gas imports through the Indian Ocean, Malacca Straits, and South China Sea are contributing to its rapid and substantial naval modernization which also raises new issues in the face of the traditional dominance of the U.S. navy in the Pacific.

Ultimately, as the two largest oil importers in the world, the U.S. and China have a strong mutual interest in stability in key energy exporting regions and in the free transit of energy resources. However, this has generally been insufficient to galvanize much agreement on regional policies and influence and, in fact China's growing presence in these areas of traditional U.S. strategic, energy, and maritime power has aggravated the sense of strategic rivalry on both sides. This growing potential for conflict needs to be acknowledged and will need to be managed carefully. Iran is an example of how China's widening energy footprint can complicate bilateral relations. Iran has become a key oil supplier to China and also a potential source of major new oil and gas investments for China's NOCs. The U.S. believes that China's long-running reluctance to support tightening U.S.-led UN sanctions on Iran reflect its growing energy relationship with Iran. Indeed, at each step of tightening sanctions China has worked to limit the sanctions in a way that China's NOCs can continue to invest in the oil industry and can also continue to supply oil products to Iran which is heavily dependent on imported oil products. Many in Beijing, alternatively, believe that the U.S. is cynically trying to deny China access to vital oil supplies that it needs to fuel economic growth. Although China has gradually come along on increasing sanctions on Iran, it remains the key opponent on the Security Council of more effective sanctions and, moreover, its NOCs are positioned for potentially much larger oil and gas investments in Iran. This issue remains a key irritant in U.S.-China relations.[14]

Nevertheless, even in the case of Iran, creative diplomacy can potentially help reduce friction and reinforce our

common energy security interests in stabilizing oil and gas exports from the region. During 2010, as oil prices continued to rise, the U.S. sought Saudi and Gulf Cooperation Council (GCC) support in an effort to convince Beijing that the Saudis and GCC producers could supply China's oil needs, a move to encourage China to limit its crude oil purchases from Iran.[15] This suggests a more nuanced U.S. recognition of China's energy security concerns and a search for a more integrated and common approach to our mutual energy security interests in the region.

As China's energy footprint grows, distrust over energy intentions and investments are likely to increasingly affect new areas where both the U.S. and China have vital strategic interests. In Southeast Asia and the South China Sea region access to energy resources and control of the increasingly vital energy sea lanes of the Malacca Straits and South China Sea China have become important dimensions of U.S.-China regional diplomacy. China's NOCs have growing energy investments in Indonesia, Australia, Myanmar, and elsewhere in the region and Beijing also has staked historic claims to sovereign control of a vast and contested maritime space across the South China Sea that it believes holds large oil and gas resources. Also, 80% of China's imported oil and a growing share of its natural gas imports are transported by tanker through these sea lanes and these volumes are destined to rise dramatically over the next decade. Hence, energy security has become another dimension of China's regional strategic calculus of strengthening its influence in the region, enforcing its sovereignty claims in disputed areas like the Spratly and Paracel Islands, and exerting greater strategic influence over shipping and the sea lanes. This has contributed to significantly more assertive actions recently by Beijing in the region in pressing its sovereignty claims. The Chinese also reacted with a virtual diplomatic tantrum when U.S. Secretary of State Hillary Clinton said at a recent ASEAN meeting that the U.S. was interested in helping broker a resolution of regional maritime claims. The Chinese have also become increasing active in harassing U.S. naval activities along China's coast, such as the recent episode of harassing the U.S. Impeccable naval vessel. In Northeast Asia, as well, energy has become an important irritant in China's relations with Japan as they joust over a natural gas field in the East China Sea.

Further from China's regional heartland, in Central Asia China's large and growing energy investments and oil and gas supply pipelines are key elements of its rapidly growing strategic and economic presence in the region. China now accounts for 25% of Kazakhstan's oil production, has built a large oil pipeline from Kazakhstan to China, has built a large natural gas pipeline from Turkmenistan to China, and is developing another gas pipeline from Kazakhstan. At the same time, the U.S. has been a key player since the fall of the Soviet Union in the energy geopolitics of the Caspian region and has invested much political capital and diplomatic effort to encourage the construction of oil and gas pipelines toward the west and free of Russian influence. This creates an increasingly delicate balance. On the one hand, to the extent China's growing access to Central Asian energy undermines Russia's traditional dominance there, this suits U.S. interests. Nevertheless, China's growing influence is also coming at the expense of U.S. influence over future energy flows and investments in the region. For example, China's growing access to Turkmenistan's natural gas supplies to move them east to China effectively weakens the rationale for a large gas pipeline from Turkmenistan to the west and on to Europe, the so-called Nabucco Pipeline project, which the U.S. strongly supports. Even potentially more problematic, Iran's oil and gas supplies could at some future point move by pipeline across Central Asia to China if China were to promote such a plan. Hence, energy is now an important factor in how the U.S. and China view each other's role in the region, a factor that geographically and economically increasingly favors China. China's energy engagement is leading to a range of concerns for the U.S. over its regional influence in a number of key places. In the Persian Gulf, the traditional heart of U.S. energy and strategic presence, China is rapidly becoming a key player beyond its ongoing involvement in

Iran. The U.S.-Saudi strategic alliance has been the cornerstone of U.S. energy security strategy for decades. However, China-Saudi relations are booming as the Saudis have become the largest single oil import supplier to China, now regularly accounting for 20% of China's oil imports. In a highly symbolic sign of the changing times, in early 2010 for some months the Saudis exported more oil to China than to the U.S. something that would have been thought nearly impossible just a few years earlier. China's NOCs were the largest investors in Iraq's massive oil field development auctions snagging three very large deals. In Africa much has been written about U.S. concerns over China's enormous new energy and resource investments and the expansion in Chinese diplomatic and economic influence. This is growing as China's NOCs become increasingly active in West Africa's prolific offshore oil fields in Nigeria, Angola, Ghana, and Equatorial Guinea traditionally dominated by U.S. and western oil companies. In Latin America, China's booming energy ties with Venezuela and more recently Brazil's offshore oil bonanza have created new concerns in Washington over the potential erosion of U.S. influence in the region. Even in Canada, China's NOCs are becoming significant investors in western Canada's heavy oil and natural gas business. There is growing conversation in Washington that China's efforts to develop oil and gas pipelines to Canada's west coast for shipping to China could undermine a key, secure energy supply source to the U.S.

Hence, while official U.S. policy tends to focus on our common energy interests in secure oil and gas supplies, under the surface U.S. apprehension is growing over the long-term implications of China's growing energy footprint. U.S. Secretary of State Clinton let on to this growing anxiety inadvertently in recent Congressional testimony. In defending the need for more funding to defend U.S. interests abroad she blurted out the example of China's efforts to undermine ExxonMobil's large liquefied natural gas (LNG) project in Papua New Guinea and its widening energy and diplomatic impact. "We are in a competition with China.....ExxonMobil is producing it. China is in there every day, in every way trying to figure out how it's going to come in behind us, come in under us.....if anybody thinks that our retreating on these issues is somehow going to be irrelevant to the maintenance of our leadership in a world where we are competing with China, where we are competing with Iran, that is a mistaken notion." [16]

China's energy reach will inevitably continue to expand and with it the potential for increasing tensions and competition for influence in the key oil and gas producing regions of the world. This has only just begun. It will take strong leadership in both Beijing and Washington to avoid energy becoming a major source of tension in an already complex bilateral relationship.

The Carbon, Climate Change Divide

Another area where U.S.-China cooperation is central to addressing a critical global energy challenge is in the arena of climate change and carbon emissions. It is perhaps the best example of how the U.S. and China are reluctantly but increasingly joined-at-the-hip as the two indispensible energy powers necessary to meet these global challenges. Unfortunately, the prospects for reaching common ground remain poor.

In the wake of the disappointing outcome of the UN Copenhagen climate meetings in December 2009 which clearly exposed the deep rift between China and the U.S., progress on re-energizing the UN climate process has been glacially slow. While the complexity of the UN climate negotiating process itself makes progress very difficult, the core problem remains the same, namely the inability of the two largest emitters to come to any consensus on their respective responsibilities for the future. The recent follow-up meeting in Cancun at the end of 2010 was barely able to forge a reaffirmation of the basic agenda set by the Copenhagen Accord, itself a vague and incomplete outline.

China continues to lead the developing countries in seeking a new pact that continues the existing Kyoto Protocol approach of "common but differentiated responsibilities"

and places the onus for solutions largely on the rich countries, most importantly the U.S. The U.S., along with most of the other rich countries are seeking a whole new pact that would broaden responsibility and require the developing countries to agree to specific national commitments for carbon emission reductions, taking into account national circumstances. Beneath the dispute lies the fundamental divide which remains largely unbridged between the two groups of countries over historic and future responsibilities.

What is clear is that if there were to be any chance for more progress on global climate negotiations, it will require a stronger consensus between the U.S. and China over their respective responsibilities. Without that, real progress remains impossible.

As by far the two largest emitters, the U.S. and China are central to future progress. But there remains little common ground between the two and their national approaches are increasingly at odds. The U.S. is unable to forge any domestic consensus on its responsibilities. The Obama administration's ambitious approach to climate change suffered from the debacle at Copenhagen, but in any event the lack of domestic support for a more active U.S. climate policy was already clear and has only intensified with the rightward shift in U.S. politics in the wake of the financial crisis and the November 2010 Congressional elections. Even the Obama effort to employ the Environmental Protection Agency (EPA) to impose emission reductions is under assault politically. The lack of consensus domestically fatally undermines U.S. credibility in global talks and, in particular, undermines U.S. hectoring of China over its emissions. The lack of U.S. credibility allows China, which is moving nationally on a much more significant scale to slow the rise in its emissions, to take the moral high ground.

Some may argue that a global agreement is unlikely because of the complexity of the negotiations globally, the multitude of conflicting interests and voices, and the continuing questions about the science. That may be. But what is clear is that if there were to be any chance for more progress on global climate negotiations, it will require a stronger consensus between the U.S. and China over their respective responsibilities. Without that, real progress remains impossible.

Conclusion

Stronger cooperation between China and the U.S. on global energy issues is vital to addressing our key global energy challenges, most importantly our common energy security dilemma. Without a greater willingness to work together on these issues, we are likely to face more unstable and high-priced oil markets, weaker global institutions to address energy market instability, an increasingly competitive and conflict-prone strategic environment in key energy exporting regions, and frightening carbon and climate outcomes. The issue is not cooperation on better U.S.-China relations for its own sake but cooperation that addresses our vital and common interests in energy security on a global basis.

Is this possible? There is a long list of possible efforts to improve the scale and quality of U.S.-China energy cooperation. First, there is no serious strategic energy bilateral dialogue and one is desperately needed. The SAED is not up to the task, it is too burdened with a multitude of economic and other issues. The U.S. and China need to begin a semi-annual strategic discussion on common energy interests and develop new rules of the road and understandings about their respective interests in and views on key energy exporting regions. There is a desperate need for a confidence-building process. Part of this is to agree that we will disagree on many issues and try to

prevent them from becoming toxic in the larger relationship. An important part of this dialogue is to work to contain the atmosphere of national competition over energy supplies and reshape it towards an acceptance of aggressive commercial competition in a broader context of national cooperation where we have broader mutual energy security interests.

In order to fashion an effective dialogue, the Obama administration needs to craft a serious and actionable energy security strategy that focuses on near and medium term realities. The green agenda is a 20 year journey in terms of oil and energy security, the U.S. needs a strategy for the next 5-10 years of continuing vulnerability to a chronically unreliable and unstable global oil market. This should involve a "full-court-press", together with China, on the producer states to open up oil resources to greater access from international companies and faster development of easily-accessed, low-cost reserves. On China's part, Beijing needs to abandon its ineffective and counter-productive equity ownership driven model of energy security and cut its NOCs loose to let them compete and prosper. Supporting their oil field acquisitions does not strengthen China's energy security and these companies no longer need the help given high oil prices and their growing competitive and technological sophistication. State support of their NOCs is increasingly a crude industrial policy of promoting "national champions" while at the same time aggravating energy security fears and distrust of key nearby powers.

Moreover, new multilateral institutions for energy security are needed; the IEA no longer represents the interests or the distribution of power among all the major oil importers. A modest start could be to start a Northeast Asian Energy Forum that would bring together the major oil and gas importers in the region. Regional cooperation on establishing emergency oil stocks would be an excellent approach to promote a more cooperative atmosphere. There was a forum to focus on energy security convened in 2006 by China that included all they key regional players including the U.S., Japan, South Korea, Russia, and India. This needs to be revived and reinvigorated.

It will take strong and visionary leadership in both Washington and Beijing to break the cycle of distrust over energy security and climate. It must capitalize on Premier Wen Jiabao's statement last year that "our common interests far outweigh or differences." The U.S. must use it waning energy leadership in order to craft a transition toward an oncoming era where it must share responsibilities with China and others.

Notes

[1] All historical figures this paragraph from BP Annual Statistical Review of Energy 2010, London.

[2] Renewables 2010: Global Status Report, Renewable Energy Policy Network for the 21st Century, September 2010.

[3] See John Mitchell, More Oil for Asia: Rebalancing World Oil and Gas, Chatham House, London (2010): "These shifts are likely to alter the character of the global oil market, as Asian markets grow in importance, and investment in increasing supplies from the Middle East, Russia and the 'pivotal' areas is dominated by state-controlled exporting and importing companies in these markets. The strategies of governments and businesses will therefore have to incorporate these new realities." pp. vii.

[4] Mikkal E. Herberg, China's 'Energy Rise', the U.S., and the New Geopolitics of Energy, Special Study, Pacific Council on International Policy, Los Angeles (March 2010).

[5] There is a growing debate amongst the leadership over pursuing a more active global diplomatic posture that has yet to substantially change the traditional "lying low" approach. See for example Jisi, "China's Search for a Grand Strategy", Foreign Affairs (March-April 2011); David M. Lampton, Testimony before the U.S.-China Economic and Security Review Commission (March 10, 2011).

[6] Wang Jisi, "China's Search for a Grand Strategy", "If the international community appears not to understand China's aspirations, its anxieties, and its difficulties in feeding itself and modernizing, the Chinese people may ask themselves why China should be bound by rules that were essentially established by the Western powers. China can rightfully be expected to take on more international responsibilities. But then the international community should take on the responsibility of helping the world's largest member support itself."

[7] Ian Bremmer, Nouriel Roubini, "A G-Zero World: The New Economic Club Will Produce Conflict, Not Cooperation", Foreign Affairs (March-April 2011).

[8] Oil production capacity acquired or developed by China's NOCs over the past decade has risen to roughly 1.3 million barrels per day in 2010 while China's oil imports rose by over 4 million barrels per day during the same period. BP Statistical Review of World Energy 2010.

[9] See Julie Jiang and Jonathan Sinton, Overseas Investments by Chinese National Oil Companies: Assessing the Drivers and Impacts, Information Paper, International Energy Agency, Paris (February 2011).

[10] Gabe Collins, "China Seeks Oil Security with New Tanker Fleet", Oil and Gas Journal, (October 9, 2006); Collins, "China Making Bid to Lead LNG Carrier Building", LNG Observer, Vol. 4, No. 3 (July-September 2007).

[11] Erica Downs, Inside China, Inc.:China Development Bank's Cross-Border Energy Deals, John L. Thornton China Center Monograph Series, No. 3 (March 2011).

[12] Bo Kong, "The Geopolitics of the Myanmar-China Oil and Gas Pipelines", in Pipeline Politics in Asia: The Intersection of Demand, Energy Markets, and Supply Routes, The National Bureau of Asian Research, NBR Special Report #23 (September 2010).

[13] Niall Ferguson, "The West and the Rest", Chatham House Presentation, London (May 9, 2011).

[14] For a recent discussion, see Erica Downs and Suzanne Maloney, "Getting China to Sanction Iran", Foreign Affairs (March-April 2011).

[15] In fact, Chinese imports of Iranian crude have declined since then but this could be for a variety of market reasons and it is impossible to know whether the U.S. effort played any role.

[16] "Clinton Says China Seeks to Outflank Exxon in Papua New Guinea", Reuters (March 2, 2011).

Main Office
1899 L Street, NW
Suite 400
Washington, DC 20036
Phone 202 986 2700
Fax 202 986 3696

California Office
921 11th Street
Suite 901
Sacramento, CA 95814
Phone 916 448 5189

New America Foundation
WWW.NEWAMERICA.NET