

The End of Japan's Nuclear Power Mirage? Tokyo's Green Olympics in 2020

Andrew DeWit

The September 7 decision by the International Olympic Committee (IOC) to award the 2020 games to Tokyo is potentially of monumental importance. That significance is not merely due to the fraught geopolitics of the so-called pivot to the Asia-Pacific or the collective angst of all those analysts waiting for Abenomics arrows.¹



Celebrating the IOC decision in Tokyo

Rather, the big deal is energy. And energy is the biggest deal there is, composing roughly 10% of the USD 70 trillion global economy. This short article aims to assess the IOC decision from the perspective of its impact on the contest between centralized versus distributed energy.² The unsustainable, centralized energy paradigm illustrated by the nuclear reactors at Fukushima

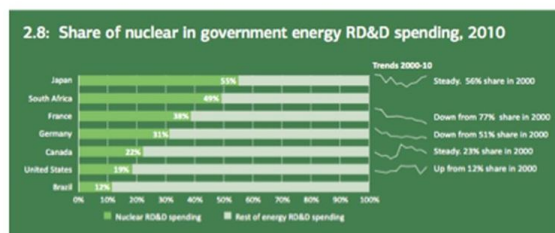
Daiichi, was the very audible elephant in the room during IOC decision-making. The upstart alternative, distributed power generation, is the route that many are now aiming at. Hence, the 2020 games could usher in a "new Japan," a very different country from the one PM Abe Shinzo described in his book "Towards a New Country"³ and has sought to realize via pressing for reactor restarts and overseas sales. Tokyo is on course to offer by 2020 a rapidly urbanizing and increasingly desperate world multiple models of sustainable, smart city technology.

The only significant spoiler lurking in the wings is the degree to which the nuclear village can rally and close the door to green via nuclear power restarts.⁴ But even as it angrily demands the Abe government write a nuclear target into the new basic energy plan,⁵ the village may be in the midst of a political meltdown. Abe evidently felt subsidence shift the terrain of interests beneath his own feet: as of yesterday, he argues that Japan must lower its reliance on nuclear power and – over the next three years – accelerate the diffusion of renewable power and efficiency to the maximum.⁶

The International Spotlight

In the short run, the IOC's decision will help keep several spotlights⁷ probing the still-potentially catastrophic problems at Fukushima Daiichi. This sustained attention is virtually guaranteed, just as Beijing went to such lengths as banning cars in the city in the runup to its Olympic Games to assure air quality sufficient for athletic performance. Consider how much the global common-sense has changed over the past few weeks: The narrative that had emerged in the wake of last year's December 16 Abe regime victory in the Lower House elections, and particularly after the July 21 Upper House elections, was that Fukushima was under control and that Japan had no other economically rational or environmentally responsible choice but to restart as much nuclear capacity as soon as possible. This particular narrative now has about as much credibility as a Tepco press release, even in the ranks of Abe's close associates.

Nuclear in Energy RD&D



Source: Energy Technology Perspectives 2012 Pathways to a Clean Energy System

Figure 1.

And the reality at the reactor site is worse than

many people think. As we have explored in these pages in detail through the summer, and as many others have written, the challenges at Fukushima Daiichi do not stop at the daily leakages of significant amounts of contaminated water. The myriad difficulties include the subsidence of the site itself, making November's planned removal of spent fuel by Tepco a very dangerous procedure.⁸ The flurry of revelations throughout the summer piled up into a startling picture of precarious governance, not only at Fukushima Daiichi itself but throughout the Japanese nuclear village.⁹ Abe continued the party line of prevarication and obfuscation right down to the wire. In the final September 7 presentation to the IOC, he insisted that contamination was confined to a small part of Fukushima's inner harbor and blamed media hype for raising concerns.¹⁰

Yet facts are facts. The editors of the journal *Nature* took a very public stand against precisely that faith-based line of "nothing to see here" argument in an unusually blunt September 3 editorial. The editors warned that the "most important impacts of the leaks will be those on the sea off Fukushima and the larger Pacific Ocean, which must be closely monitored."¹¹ Indeed, also on September 3, the US military's "Stars and Stripes" newspaper not only backed up this reality-based account, but delivered one of the best recent short analytical pieces on the Fukushima Daiichi crisis.¹²

All of these agencies and organizations are now

alert to the need for close and sustained scrutiny. Observers here in Japan and overseas learned from this episode that, concerning Fukushima Daiichi, no statement from the industry, the regulators, or even the Japanese government can be taken at face value. There are too many players -- on site and in Tokyo -- pretending to be getting a grip on the crisis, while actually seeking to pass the costs and responsibility off to others. Moreover, the nuclear village's frantic efforts to dismiss and deride concerns about contaminated water, spent fuel pools, damage to the marine environment, and the variety of other items of legitimate concern offer a startling display of an industry on the precipice. They and their allies will continue trying to deflect attention from the myriad problems that became evident in the course of the summer. In the domestic public debate, these items include such pressing matters as the proper compensation of individuals and industries affected by the nuclear disaster, the allocation of the cost of the cleanup and decommissioning, and the urgent need to reform Japan's power economy faster than the leisurely pace currently envisioned.¹³

Moreover, the IOC decision in the midst of such an intense focus on the facts at Fukushima Daiichi clearly was not a declaration of trust in the narrative offered by Team Abe. Rather, it was a decision that Tokyo was the best of three comparatively weak bids. Abe and successive Japanese governments, both national and Tokyo

Metro, will now be held to Abe's desperate promises to get things in order. The IOC will certainly be watching, concerned at the risk of more mayhem seven years hence. In addition to that, uncountable numbers of agencies, analysts and reporters now have multiple incentives to continue following developments. In other words, the lights are on, and they seem unlikely to go off again.

Power Politics

This attention from overseas in turn bolsters the many forces within Japanese government circles, civil society, and the business community that had been trying to weaken the stranglehold of the nuclear village.¹⁴ One of the most prominent actors in this effort to undermine the iron grip of the nuclear village is the governor of Tokyo, Inose Naoki. He has long been a proponent of a green Tokyo, being the green force within the Metropolitan Government (TMG) during the years of Ishihara Shintaro. Inose himself is not antinuclear per se, but he is deeply antimonopoly, which is the fuel of the nuclear village, and clearly understands the benefits of green growth. His antimonopoly initiatives are evident in the TMG decision to stop selling its hydropower to Tepco, to shift as many of its facilities' contracts as possible from Tepco to emerging "new power" (PPS) firms, to invest in distributed power, and to undertake other deliberate efforts to "blow a hole" in the monopoly's business model.¹⁵

Alongside TMG Governor Inose are the expanding antinuclear forces within the LDP itself, who were greatly invigorated on August 25 by former Prime Minister Koizumi's public declaration of Abe's need to make the decision to get out of nuclear. Koizumi's determined stance followed an overseas fact-finding mission earlier in August, a mission composed of himself as well as four executives from the nuclear power technology sections of the Toshiba, Hitachi and Mitsubishi Heavy Industries. These are the top firms of the nuclear village's power-unit construction. The informal mission inspected renewable projects in Germany as well as the planned repository for nuclear waste in Finland's Onkalo. Throughout the trip, apparently, the executives implored Koizumi to side with them. But as Koizumi argues, the evidence points to nuclear being unsustainable. He also warns Abe that "[i]f no plan to get to zero nuclear power is produced now, eliminating atomic power will become all the more difficult in the future. All the opposition parties agree that Japan should abandon nuclear power. If the prime minister decided to do it, he could do it."¹⁶

More broadly, big capital and small and medium enterprises (SMEs) are increasingly entering the power business as competitors to the nuclear-holding monopolies, with Japan's ranks of new power producers likely to exceed 100 this year. One of the newest entrants, starting from this month, is the heavyweight Mitsui, which will be

cooperating with Softbank on renewable and other projects.¹⁷

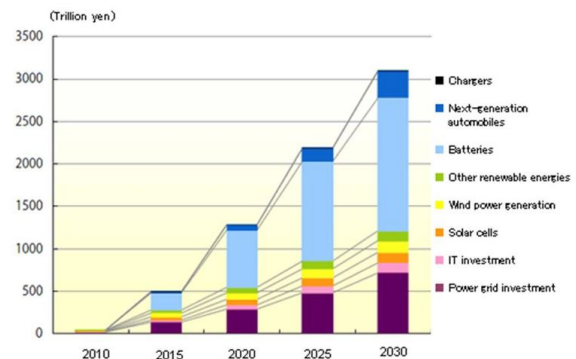


Figure 2.

Out beyond these forces gathered in the capital city are the subnational governments. A majority of Japan's subnational governments not only want the growth offered by renewable and distributed generation, but are increasingly dubious about nuclear energy, particularly the restart of any reactor facilities in their districts. These governments' willingness to oppose nuclear restarts has gained great impetus from developments at Fukushima. It will gain additional impetus through the ongoing expansion of awareness that renewable energy, efficiency, and its associated infrastructure (e.g. smart grids) offer the robust and sustainable growth that they and their voters desire.

As these forces organize more coherently, they press on regulatory, fiscal and other mechanisms that have kept the nuclear village in place for so long. The huge chunk of Japan's energy R&D controlled by the nuclear village, up to 50% as late as 2010, is one area where the village is

losing clout (figure 1). Another among myriad examples is seen in attention to the “smart community” regulations that raise unnecessarily high barriers to entry for localized power production, especially for renewable power production. Illustrative of the new narratives gaining momentum is the fact that the main business daily, the Nikkei Shimbun, addressed these particular regulations in an August 26 editorial,¹⁸ arguing that changes should be included in the ambit of Abenomics deregulation.¹⁹

The Nikkei is hardly an antinuclear newspaper, in contrast to the Communist Party’s Akahata, but like TMG Governor Inose, the newspaper evidently understands the need to put the country and its economy into the mainstream of power and energy developments lest it become further handicapped in intensifying global competition.

It happens that the most dynamic area of growth in energy is distributed renewable power, as the International Energy Agency (IEA) and other observers have been highlighting for the past couple of years. The IEA, hardly as enthusiastic about green as say, Greenpeace, has itself projected renewables to outpace even gas by 2016. Its projections for the growth of nuclear are considerably less favorable.²⁰

The Green Olympics

So how big is the smart city and distributed

power market that TMG appears well positioned to brand with its own mark? Estimates vary, but a Nikkei BP survey showed that in early 2010 its cumulative value to 2030 was assessed as ¥3100 trillion (Figure 2). This assessment was based on extrapolations from examining 100 of 300-400 smart city projects then underway. The assessment centred on the energy storage opportunities that are a critical element of balancing supply and demand in distributed power systems. In short order, however, smart city projects more than doubled in China alone, being recalculated from roughly 165 in late 2011 to over 400 by the end of 2012.²¹ The Nikkei BP now projects the total smart city market to be YEN 4000 trillion cumulative by 2030.²²

Whether TMG gets there and pulls the rest of Japan along depends on politics. The nuclear village is skilled at blowing fog and fighting to protect or expand fiscal and regulatory turf. Like their counterparts in high finance, who nearly melted down the global economy via the Lehman Shock but continue to stymie reform of “too big to fail,” Japan’s vested power interests will almost certainly fight to eviscerate reform over the ensuing years. But the attentive public’s perception of costs and benefits from the status quo pre-Fukushima, versus other options, now seems irrevocably changed. So Abe has his chance to jump from a political vehicle on the skids and get into one that is growing.

If Abe is sincere in his recent remarks about the

need to go for green, now that he has Fukushima all over his shoes, that is wonderful. As former PM Koizumi advises, he is the only political agent at the centre who can make the key decision. While holding him to his promises about Fukushima Daiichi, let us hope that he sees where TMG and the world are headed and makes the decision to get out of nuclear power and truly go for the green energy alternative.

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Notes

¹ The Financial Times of September 6 quoted a Daiwa analyst as exclaiming that the Olympics would be a “‘fourth arrow’ of Abenomics, complementing Mr. Abe’s three-pronged strategy of increased government spending, looser monetary policy and structural reforms.” See Jonathan Soble, “Japanese rediscover optimism and hope for Olympic bid success (<http://www.ft.com/intl/cms/s/0/b1faaa46-16e4-11e3-9ec2-00144feabdc0.html>),” Financial Times, September 6.

² For more details on these contending energy paradigms, see Andrew DeWit, “Distributed Power and Incentives in Post-Fukushima Japan (<http://www.japanfocus.org/-Andrew-DeWit/3861>),” The Asia-Pacific Journal, Vol 10, Issue 49, No. 2, December 3, 2012.

³ Considering where we collectively are on energy, plus the whole Sturm und Drang following Japan’s Fukushima Shock, the book is incredibly myopic with only 4 spots where energy and ICT are even mentioned.

⁴ Japan is no longer growing, so “all of the above” is not an option.

⁵ The Denki Shimbun (in Japanese) describes members of the working group of the basic Energy policy committee as being livid in a September 4 meeting due to the lack of government commitment to targets. See “Nuclear Power Policy: Discontent Pours Forth From the Members of Working Group of Advisory

Committee on Energy and Natural Resources,” Denki Shimbun, September 6, 2013:

⁶ See (in Japanese) “The Full Transcript of Prime Minister Abe’s Press Conference at Buenos Aires (<http://www.asahi.com/politics/update/0908/TKY201309080045.html>),” Asahi Shimbun, September 8, 2013.

⁷ The IAEA will surely be watching closely, having been embarrassed by the extent of the crisis at Fukushima.

⁸ On this, see Andrew DeWit and Christopher Hobson, “Abe at Ground Zero: the consequences of inaction at Fukushima Daiichi (<http://www.japanfocus.org/-Christopher-Hobson/3991>),” The Asia-Pacific Journal, The Asia-Pacific Journal, Volume 11, Issue 35, No. 1, September 2, 2013.

⁹ Jeff Kingston offers a wonderfully dry and fact-packed overview of the mayhem, in “Don’t worry: team Abe is tackling the nuclear crisis at Fukushima (<http://www.japantimes.co.jp/opinion/2013/09/07/commentary/dont-worry-team-abe-is-tackling-the-nuclear-crisis-at-fukushima/>),” Japan Times, September 7, 2013.

¹⁰ The Financial Times initially reported Abe as insisting “that the radiation is isolated to an area of 0.3 square km” of Fukushima Harbour,” and then edited out the claim.

¹¹ See “Nuclear error (<http://www.nature.com/news/nuclear-error-1.13667>),” Nature Editorial, September 3, 2013.

¹² See Eric Slavin, “Scientists say Fukushima danger limited, -- for now (<http://www.stripes.com/news/pacific/earthquake-disaster-in-japan/scientists-say-fukushima-danger-limited-for-now-1.238928>),” Stars and Stripes, September 3, 2013.

¹³ A short overview of the policy items under deliberation is available in “Editorial: Concrete measures needed to implement true electricity reforms (<http://mainichi.jp/english/english/perspectives/news/20130218p2a00m0na011000c.html>),” Mainichi Shimbun, February 18, 2013.

¹⁴ Andrew DeWit, “Green Shoot: Abenomics and the 3rd Arrow (<http://www.japanfocus.org/-Andrew-DeWit/3965>),” The Asia-Pacific Journal, Vol 11, Issue 27, No. 3, July 8, 2013.

¹⁵ On this see (in Japanese) “TMG Power Idea is Aimed at Blowing a Hole in Tepco (<http://ceron.jp/url/www.zakzak.co.jp/society/politics/news/20120703/plt1207030745005-n1.htm>),” ZakZak, July 3, 2012.

¹⁶ See “Former PM Koizumi’s anti-nuclear case makes sense (<http://mainichi.jp/english/english/perspectives/news/20130826p2a00m0na008000c.html>),”

Mainichi Shimbun, August 26, 2013.

¹⁷ See (in Japanese) “The Number of New Power Firms Continues Apace, and Will Exceed 100 This Year: 1 to 15% Cheaper [than the monopoly utilities] (<http://bizgate.nikkei.co.jp/smartcity/kanren/201308021427.html>),” Nikkei Shimbun, July 28, 2013.

¹⁸ See (in Japanese) “Reforming power market’s with the users’ wisdom (http://gisyo-104.blogspot.jp/2013/08/2013826_4768.html),” Nikkei Shimbun, August 26, 2013.

¹⁹ Note that much of Abenomics “third arrow” is actually energy reform being sought by central agencies and other interests that want more rapid diffusion of renewables and efficiency. Abe himself had to know what was in the arrow because he chairs many of the committees central to this content. Moreover, his own wife is an outspoken advocate of green growth versus nuclear power.

²⁰ See “Renewables to surpass gas by 2016 in the global power mix, (<http://www.iea.org/newsroomandevents/presreleases/2013/june/name,39156,en.html>)” International Energy Agency, June 26, 2013.

²¹ See (in Japanese) Takesue Teruyoshi, “In Order to Participate in China’s Smart City Market (<http://www.nri.co.jp/opinion/chitekishisan/2012/pdf/cs20121109.pdf>),” Nomura Research

Institute, November, 2012. On "Green Growth in Cities (http://www.oecd-ilibrary.org/urban-rural-and-regional-development/green-growth-in-cities_9789264195325-en)," see the OECD Study from May 23, 2013.

²² See the data in Andrew DeWit, "Japan: Building a Galapagos of Power? (<http://www.japanfocus.org/-Andrew-DeWit/3856>)" The Asia-Pacific Journal, Vol 10, Issue 47, No. 3, November 19, 2012.