



THE TICKER

BLUER SKIES FOR CHINA

China is making moves to clean up its act.

Air pollution in the country contributes to an estimated 1.6 million deaths each year, according to a recent study by Berkeley Earth. But a spate of new clean energy projects aims to improve public health and help China build stronger economic and diplomatic ties.

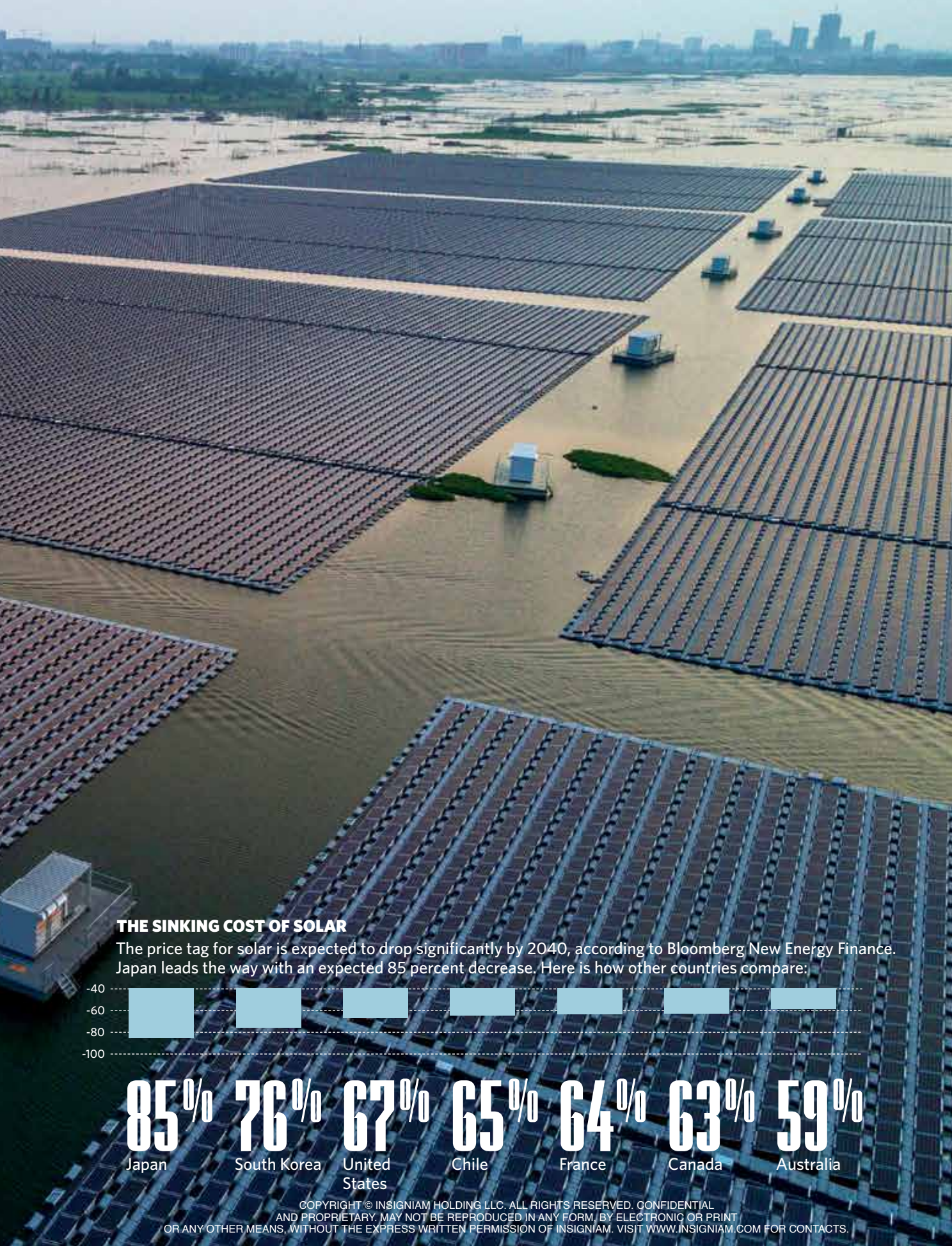
One major effort is a solar field installed by the government in May that will create enough energy to “provide light and air conditioning to much of a nearby city,” reports *The New York Times*. “The provincial government wants to expand the effort to more than a dozen sites, which collectively would produce the same amount of power as a full-size commercial nuclear reactor.”

The installation, built atop a lake formed by the collapse of abandoned coal mines, is part of China’s larger effort to become a global leader in clean energy. The country aims to get 20 percent of its energy from renewable sources by 2030, reports *National Geographic*. To that end, China has increased its investment in renewables by 17 percent, which now reflects more than a third of the world total, according to *Global Trends in Renewable Energy Investment 2016*, published by the United Nations Environment Programme and Bloomberg.

China’s clean energy investment does not end at its borders. As part of President Xi Jinping’s “One Belt, One Road” plan—a \$1 trillion initiative to cultivate economic and diplomatic ties through infrastructure building—China will fund and help implement clean energy projects across Asia, East Africa and Eastern Europe.

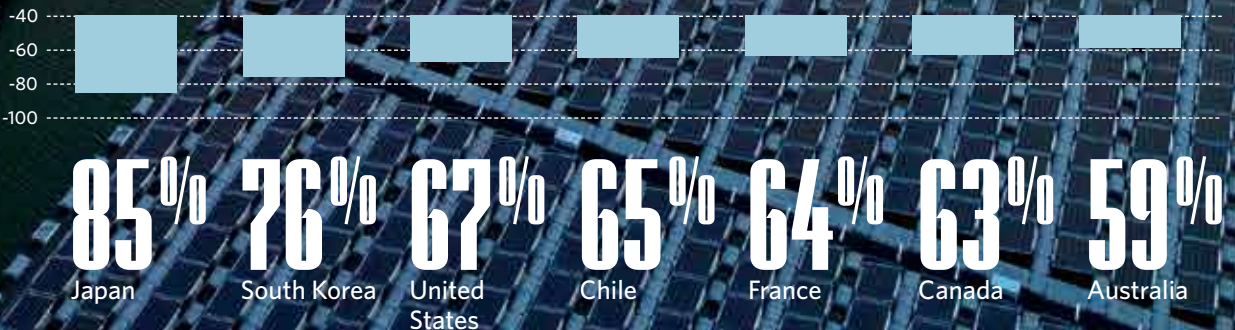
Despite these glowing prospects, China has also seen several clean energy setbacks. According to Greenpeace, 19 percent of the country’s wind power was wasted in the first three quarters of 2016 due to grid operators’ bias toward coal production. And China’s National Development and Reform Commission cautioned earlier this year that the country’s electricity distribution system is not flexible enough to handle renewable power. Technological obstacles related to connecting wind and solar assets to the grid also left some renewable energy stranded.

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THE SINKING COST OF SOLAR

The price tag for solar is expected to drop significantly by 2040, according to Bloomberg New Energy Finance. Japan leads the way with an expected 85 percent decrease. Here is how other countries compare:





“The only way to be ready is to train the people.”

—Mounir Mahjoubi

HACK THE VOTE

The ripple effects of Russia’s cyberattacks during the 2016 U.S. presidential election are still being processed. Ultimately, however, the hacks, which saw the release of thousands of documents from the U.S. Democratic National Committee (DNC) and presidential candidate Hillary Clinton’s personal email, is being blamed by some, at least in part, for her loss.

In France, however, a similar hack on now President Emmanuel Macron’s campaign just prior to the election by a yet to be confirmed source has garnered an entirely different narrative. The hack, which saw the release of various memos, emails and contracts, had seemingly no major effect on the outcome. This was helped in large part by the government-imposed media blackout, which bans any campaigning and media coverage seen as influential to the election in the 44 hours before polls close.

At the same time, however, this positive narrative was driven by the mundaneness of the information leaked, some of which even included fake documents planted by the campaign for potential hackers to find. Instead of leading to the downfall of a candidate, those responsible for the cybersecurity of President Macron’s campaign are receiving praise in various outlets for their preparation and response. Here are three lessons to be learned:

1 Anticipate. While the DNC failed to heed warnings in 2015 from the U.S. Federal Bureau of Investigation that its computers had been compromised by “a cyberespionage team linked to the Russian government,” according to *The New York Times*, President Macron and his team braced for breaches from the start. “We knew we were going to be attacked and targeted,” Mounir Mahjoubi, head of digital for President Macron’s campaign and now the secretary of state in charge of digital affairs under President Macron, told *The Guardian*. In response, Secretary Mahjoubi and his team “focused on reducing the risk if anyone managed to break into the system,” *The Guardian* reported. “His digital team put in place traps for hackers, cyber-blurring with false email accounts and false documents, mainly to waste their time and slow them down—which also prevented hackers getting near [President] Macron’s own account or his top aides.”

2 Counterattack. When President Macron’s campaign staffers received emails directing them to fake landing and login pages hackers could use to record keystrokes—a technique called tabnabbing—Secretary Mahjoubi and his digital team flooded those pages with fake passwords and data, making it harder for hackers to gain access to the campaign’s emails and basically wasting their time. “You can flood these addresses with multiple passwords and logins, true ones, false ones, so the people behind them use up a lot of time trying to figure them out,” Secretary Mahjoubi told *Newsweek*.

3 Educate. Every week Secretary Mahjoubi and his team sent new phishing addresses they found to the election team, he told *The Daily Beast*. He also trained staffers to be on alert for various cyberattack techniques, such as tabnabbing. “The only way to be ready is to train the people,” Secretary Mahjoubi told *The Daily Beast*. “Because what happened during the Hillary Clinton campaign is that one man, the most powerful, [campaign chairman] John Podesta, logged on to his [fake] page.”



PHOTO BY FREDERIC VIELCANET / ALAMY STOCK



A Whole Foods store in Clapham Junction, London

AMAZON MOVES UP THE FOOD CHAIN

Amazon is eating the world. Next up, grocery stores.

The company announced in June that it was purchasing grocer Whole Foods for \$13.7 billion. The aftershock was immediate on the NASDAQ: Whole Foods' stock price went up almost 30 percent by the end of the day that the deal was revealed, and it is expected to keep rising. Moreover, other grocery chain stocks lost \$22 billion in market value on the day of the announcement.

Why all the upheaval? Combined, Amazon and Whole Foods can offer unique value that will draw new customers—which Amazon proved on its first full day of ownership in August by cutting Whole Food prices by as much as 43 percent. “Price was the largest barrier to Whole Foods’ customers,” said Mark Baum, a senior vice president at the Food Marketing Institute, an industry group, according to Bloomberg. “Amazon has demonstrated that it is willing to invest to dominate the categories that it decides to compete in. Food retailers of all

sizes need to look really hard at their pricing strategies, and maybe find some funding sources to build a war chest.”

The big question is whether grocery chains like U.S. industry leader Kroger could suffer the same fate as Borders and Circuit City, which both failed to survive Amazon’s encroachment on their respective brick-and-mortar realms. But big grocery incumbents may have reason to remain relaxed, as the industry remains profitable—roughly \$675 billion is spent on groceries annually in the U.S. alone. Additionally, Whole Foods stores are found mostly in urban areas, which may ensure the supremacy of companies like Walmart in rural parts of the country.

All the same, David Tawil, president of hedge fund Maglan Capital, expects momentous change. “At least as it relates to groceries, we now have an answer that Amazon is serious,” he said in an interview with *Reuters*. “And when Amazon is serious, frankly there is no limit to what they can do in terms of disrupting the space.”

DRUG DISCOVERY

Prostate cancer is the second-most common cancer found in men, with more than 1 million new cases recorded around the globe each year. And while treatments are getting better, the disease remains deadly.

But Johnson & Johnson could soon change the trajectory of prostate cancer treatment, according to officials from the American Society of Clinical Oncology (ASCO). The company’s new drug, Zytiga, cut the mortality risk for newly diagnosed, advanced prostate cancer patients by 38 percent, according to data published in June.

In one recent study, Zytiga improved survival rates and slowed cancer growth for 18 months when added to standard care in a study of 1,200 men with advanced prostate cancer, according to the Associated Press. In a second study, which included 1,900 men newly diagnosed with advanced prostate cancer, Zytiga also increased survival rates when combined with conventional treatments. According to the data, 83 percent of patients who received the drug were alive after three years versus 76 percent of men not given the drug.

Richard Schilsky, chief medical officer, ASCO, says the studies are “likely to change clinical practice pretty much overnight.” And Jonathan Simons, CEO of the Prostate Cancer Foundation, called the results of one recent Zytiga study “historic.”

“It’s the largest survival benefit in the history of medical oncology or prostate cancer,” according to *BioWorld Today*.