

## Dozens Die in North Asia Heat Wave as Power Supply Strained

By Sungwoo Park and Chisaki Watanabe - Aug 13, 2013

Record temperatures across North Asia have killed dozens and pushed electricity grids to near breaking point, forcing governments to introduce emergency measures as more of the same heat is forecast.

Air-conditioning in [South Korea](#)'s public buildings has been shut off as the government yesterday warned of power shortages. China has opened air-raid shelters as makeshift cooling stations, while thousands in [Japan](#) have been hospitalized for heatstroke.

"We are in a critical situation where, if any single power generator goes wrong, we will have to resort to rolling blackouts just like we did in 2011," Yoon Sang Jick, South Korea's minister of trade, industry and energy, said in a speech on Aug. 11.

Shanghai hit a record 40.8 degrees Celsius (105 degrees Fahrenheit) on Aug. 7, according to the meteorological bureau, as the city endured its hottest summer in 140 years. In southern Japan, temperatures in Shimanto city peaked at 41 degrees Celsius yesterday, the highest ever recorded in the country, according to the meteorological agency.

Eight people have died of heatstroke across South [Korea](#) as of Aug. 11, while 867 people have been hospitalized, according to the Central Disaster and Safety Countermeasures Headquarters. Seventeen people in Japan were killed by heatstroke between Aug. 7 and Aug. 11, according to the Fire and Disaster Management Agency, with more than 9,800 in the hospital for treatment.

### Critical Period

In China, at least 11 people have died from heatstroke since July, the Shanghai Daily reported Aug. 1, citing local authorities.

"The hot summer this year is not a result of human activities, but it is true we have increasingly hotter summers and global warming is in the background," said Takehiko Mikami, a climatology professor at Teikyo University in [Tokyo](#).

The record temperatures are a result of multilayered high pressure systems extending over much of the region, including Japan, South Korea and China, Kenji Okada, a forecaster at the [Japan Meteorological Agency](#), said today.

"Descending air currents get heated when compressed by many layers of high pressure," Okada said by phone from Tokyo. "A lack of low pressure between the layers makes it difficult to create clouds, preventing temperatures from falling even at night. Normally, temperatures are reset by the next morning, but that isn't happening now." The pattern will remain for some time, Okada said.

### Pressure on Utilities

In South Korea's case, the three days through Aug. 14 are considered to be the most critical. Demand may peak at 80,500 megawatts on Aug. 13, while supply is forecast at 77,130 megawatts, leaving the country 3,370 megawatts short, the energy ministry said yesterday in an e-mailed statement.

South Korea's Yoon on Sunday urged public institutions, companies and households to cut power usage as much as possible from 10 a.m. through 6 p.m. during those three days.

The heat wave heightens pressure on utilities, particularly in Japan and Korea where safety concerns have prompted the shuttering of nuclear power stations.

Two of South Korea's 23 reactors were halted earlier this year and the restart of another was delayed when safety certificates for components used at the facilities were found to be faked. In Japan, all but two of the nation's reactors are shut following the March 2011 earthquake and

tsunami.

## Electricity Demand Rises

In Japan, the absence of nuclear power has forced utilities to turn to conventional fossil fuels. [Tokyo Electric Power Co. \(9501\)](#), the operator of the wrecked Fukushima Dai-Ichi atomic plant, almost doubled coal consumption in July after turning to coal-fired plants to meet customer needs.

Demand for electricity in Tokyo Electric's service areas reached 50,930 megawatts on Aug. 9, the highest this fiscal year, according to data on the utility's website. Tepco, as the utility is known, estimates power demand may reach 90 percent of capacity in the two weeks through Aug. 23, it said Aug. 9 on its website.

Tepco, which has about 29 million customers in Metropolitan Tokyo, will seek electricity supplies from other companies and postpone maintenance at thermal and hydro power plants should demand spike, spokeswoman Kaoru Suzuki said by phone today.

## Reserve Margins

Japan's utilities have so far been able to keep their reserve margins -- generating capacity not used to satisfy demand -- at higher than 3 percent, which is considered the lower limit for a stable electricity supply, said Takehiro Kawahara, an analyst with Bloomberg New Energy Finance.

"If the heat wave continues and the reserve margin becomes less than 3 percent, the national government and utilities will probably need to commit to more energy-saving efforts, asking businesses and consumers to save electricity," Kawahara said.

The heat wave hit in force as millions of Tokyo residents left the city for home towns and villages for the o-bon summer holidays, when many companies and businesses shut for the week.

In [Onjuku](#), a town on the east coast of Chiba prefecture about 100 kilometers (62 miles) from Tokyo, thousands of visitors have packed the town's beaches to cool off.

In Tokyo's Otemachi financial district, the mercury reached 38.3 degrees Celsius on Aug. 11, the fourth-highest on record for the area, according to agency data.

## Power Production

An increase in [Shanghai's](#) residential water tariffs has been postponed by a month to Sept. 1 as high temperatures are expected to continue, the government said in a statement on its website. Some residents of the city have turned to social media to call for the government to lower electricity prices.

Elsewhere in China, Hefei, Hangzhou, Xi'an and Chongqing cities have opened local air-raid shelters for citizens to keep cool, the Xinhua News Agency reported July 2, citing people it didn't identify.

Seven provinces in China had record-high power production in July due to heat waves in east and southwest China, according to a July 29 statement on the website of State Grid Corp. of [China](#), the nation's dominant power distributor.

China's power production increased to an all-time high in July. Electricity generation climbed 8.1 percent to 479.5 billion kilowatt-hours last month, data from the National Bureau of Statistics in Beijing showed Aug. 9, the highest monthly figure on record.

Temperatures are expected to rise to 35 degrees Celsius or higher again today in much of Japan including the Kyushu and Shikoku islands, according to Japan's meteorological agency.

"We expect both maximum and minimum temperature will be higher than average or much higher in some locations," the agency said today in its weekly forecast.

The agency began issuing heat advisories two years ago to warn of heatstroke amid a push across Japan to save energy following the Fukushima nuclear accident.

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