



**Week ending Friday, November 12, 2021**

### **Naturally Abundant**

Wind and solar could provide enough electricity to meet most of the current demand in the U.S., according to an international study. Writing in "Nature Communications," researchers say batteries and other storage methods could provide even more reliable round-the-clock power. "Wind and solar could meet more than 80 percent of demand in many places without crazy amounts of storage or excess generating capacity, which is the critical point," co-author Steve Davis of the University of California, Irvine said. "But depending on the country, there may be many multi-day periods throughout the year when some demand will need to be met by energy storage and other non-fossil energy sources in a zero-carbon future."

### **Earthquakes**

Much of central New Zealand was jolted by a magnitude 5.5 temblor. • Earth movements were also felt in India's Andaman and Nicobar Islands and Sikkim state, southwestern Turkey and western Nicaragua.

### **Wild Bee Bonanza**

The last descendants of England's wild honeybees have been discovered in pristine ancient woodlands just outside Oxford, long after the species was thought to have been wiped out. The wild bees are smaller, darker and with more fur than bees in managed hives, according to bee conservationist Filipe Salbany. He says they also nest among branches located high above the ground, which is why they had never been spotted before. The woodlands in which they were found are not open to the public, and there is no gardening, beekeeping or planting allowed, so there is "very little human interaction," Salbany told "The Guardian." He said one of the tree nests he spotted is at least 200 years old.

### **Leak Detection**

Satellite data has revealed nearly 800 major methane leaks from four countries. While methane accounts for only 16 percent of all greenhouse gas emissions, it is 80 times more potent than carbon dioxide in causing global heating. Cutting those emissions is crucial to combat climate change. Scientists from the U.S. and Europe used data from two satellites to detect the most methane leaks from oil and gas facilities in the United States, Algeria, Turkmenistan and Uzbekistan. They say the leaks could be repaired or prevented with better fossil fuel infrastructure maintenance.

### **Debris Damage**

The massive amount of floating pumice spewed in August from an undersea volcano in southern Japan's remote Ogasawara island chain has damaged boats and ports as far north as Okinawa and Kyushu. Japanese scientists have begun to analyze the composition of the pumice and the ocean currents that carried it far from the eruption. A eruption of the same volcano in 1986 also carried pumice stones to Okinawa.

### **Unbridled Warming**

A new report warns that even with all the pledges made at the Glasgow climate conference,

roughly twice as much carbon will be emitted by man-made sources by 2030 than will be needed to push global heating past the 1.5-degree Celsius mark. Under “business as usual,” without any of the new pledges, the world will warm up by 2.7 degrees this century, “Climate Action Tracker” said. Chief Executive Officer Bill Hare said there are no plans in place to achieve many of the 2030 targets. Scientists say to keep warming to the aspirational goal of 1.5 degrees, global greenhouse gas emissions must fall 45 percent from 2010 levels by 2030 to hit “net zero” by 2050. The British Met Office warns that 1 billion people will face deadly heat with just 2 degrees of warming.

### Tropical Cyclones

Tropical Storm Wanda dissipated to the northwest of the Azores. • Tropical storms Sandra and Terry formed briefly over the eastern Pacific.

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