



the weekly anthropocene



dispatches from the wild, weird world of humanity and its biosphere

By Sam Matey

US Climate Policy: Washington State, Chicago, and New York City.

The transition to renewable energy continues to storm ahead, as three major US jurisdictions instituted far-reaching new policies to decarbonize their economies. On April 11th, Washington State passed a clean energy transition bill. It mandated that the state's electricity-providing utilities phase out the use of coal, the dirtiest fossil fuel, by 2025, provide

80% of their electricity from clean energy by 2030, and to be at 100% clean energy by 2045, joining California, Hawaii and New Mexico as the 4th state to legally require a complete switch to clean energy. (PSA: clean energy means energy sources that do not emit climate change-causing greenhouse gases, including renewable energies such as solar and wind as well as nuclear power). This is an amazing step forward-and it also has great provisions incentivizing community and union labor-driven clean energy projects! For more on the Washington State story, see tinyurl.com/y5p2n8nr.

Furthermore, on April 10th, Chicago's city council unanimously passed a bill requiring the city power all of its buildings with clean energy by 2035, as well as completely electrifying the city bus fleet by 2040. This puts the Windy City in line with 119 other American cities that have committed to 100% clean energy, including major municipalities such as Atlanta, St. Louis, San Francisco, Orlando, Spokane, Denver, and Kansas City (see map of all 119!). Chicago, home to 2.7 million people, is the largest American city yet to join this future-forward club. Spectacular news! For more on the Chicago story, see tinyurl.com/y3nqtcf5.

Finally, on April 18th, New York City's legislature passed a bill requiring its buildings to reduce their greenhouse gas emissions by 40% (from 2005 levels) by 2030. While not a full commitment to clean energy, this is a great step forward, as buildings are by far the city's biggest emitters. The bill also ensures that the community will benefit, as unions expect to see thousands of new jobs in retrofitting NYC's buildings to be more energy-efficient, and houses of worship and rent-regulated apartments are exempted from the new requirements. Excellent work! For more, see tinyurl.com/y3tdq8mc.

Overall, these new commitments are a sign that smart, conscientious Americans who care about their world's future are already working to make their communities more sustainable places. Imagine what we'll do once people like that are in charge at the federal level! For all cities moving to 100% clean energy, see tinyurl.com/y2m9bdj5!





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New Discoveries: Hawaii. *Hibiscadelphus woodii* (pictured) is a native Hawaiian relative of the hibiscus, first discovered in 1991. However, it was last seen in 2009, and officially declared extinct in 2016. Now, in a fascinating tale of rediscovery, scientists from the National Tropical Botanical Garden have found three *H. woodii* plants growing in the remote Kalalau Valley on the island of Kauai-on a sheer cliff face over 500 feet below the ridgeline! As the plants' stronghold is completely inaccessible to humans, the botanists only discovered their existence during a drone survey. Next, they're investigating using a drone than can safely take cuttings of the plants, in an effort to establish a backup cultivated population. Great news! For more, see <https://tinyurl.com/y54vgnv3>.



New Discoveries: Madagascar. In a sparkling new discovery, a team of German entomologists have found two new species of giant stick insect from the genus *Achrioptera* in the forests of northern Madagascar. They have extremely bright coloration, which is highly unusual in a group of insects that evolved to camouflage themselves as sticks. It's still unclear why these stick insects are daring to be different.



(Pictured: *Achrioptera maroloko*, named after the Malagasy word for "colorful." For more, see tinyurl.com/yynt7rj7.)

New Threats: Aerial Microplastics. Microplastics are a burgeoning pollution threat around the world. The microscopic product of broken-down human plastic waste, they've already been found at the bottom of the Marianas Trench, in soils, and in human foodstuffs. Their negative effects include wreaking havoc on the ocean food web by filling bellies without providing energy, serving as "sponges" that absorb and transport pollutants, and, if baked in the sun and saltwater for too long, they even emit greenhouse gases, further contributing to climate change. Now, according to a new study published in *Nature Geoscience*, researchers have found hundreds of microplastics fragments and fibers in an otherwise pristine area in the French Pyrenees mountains. It appears microplastics are now being spread through the atmosphere. Disturbing news. For more, see www.nature.com/articles/s41561-019-0335-5.