

Doomslayer: Weekly Progress Roundup

New deep sea ecosystems, the world’s largest mosquito factory, a triumph of citizen science, and more.

MALCOLM COCHRAN
AUG 03, 2025

10

1

1

Share

Energy & Environment

Conservation and biodiversity

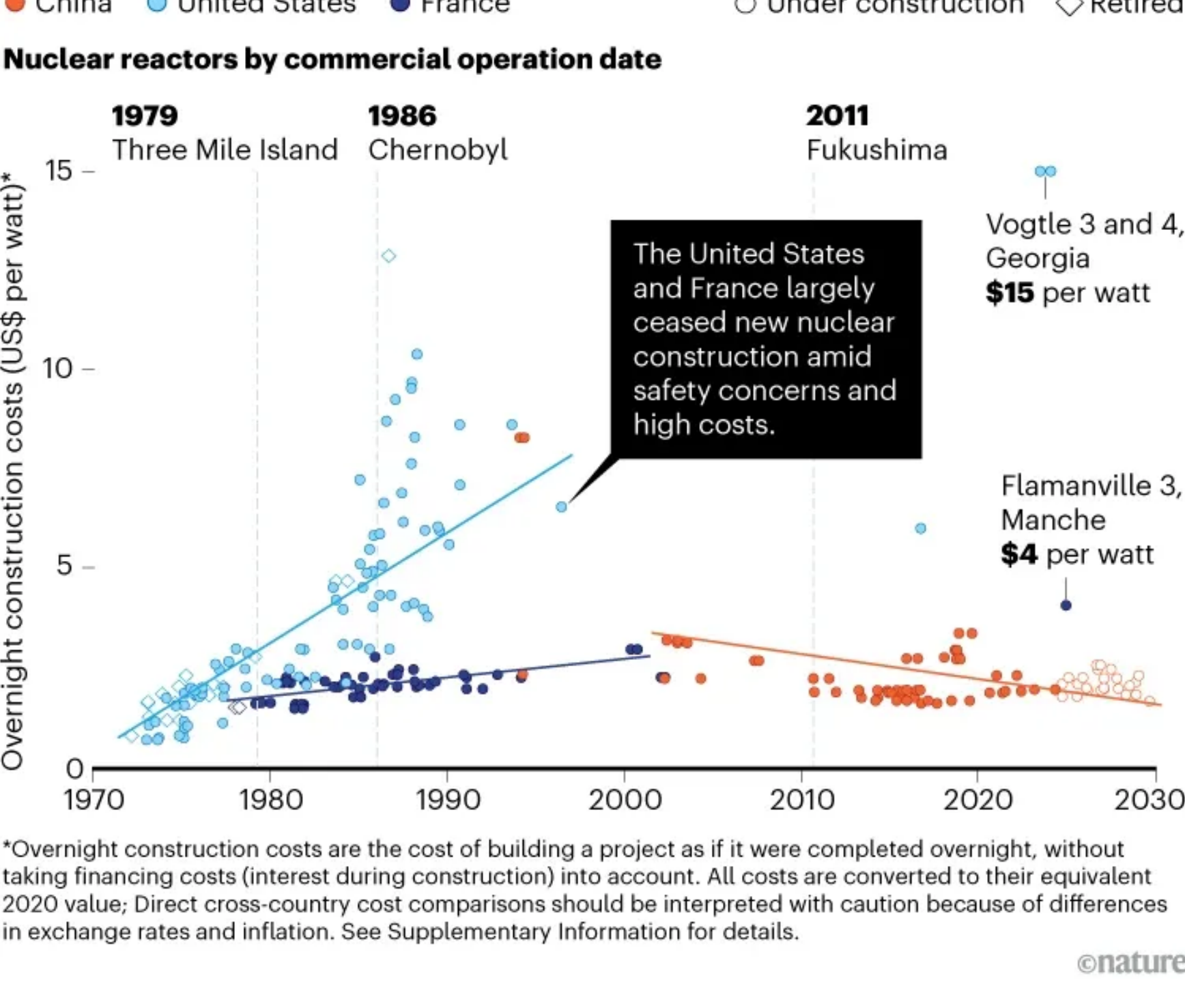
- The world’s smallest snake has been **rediscovered** in Barbados after it was lost to science for nearly 20 years.
- A team of scientists has discovered **thriving ecosystems** nearly 10 kilometers beneath the ocean surface—deeper than ever observed before—sustained by chemical-rich fluids seeping from the seafloor. Notably, the researchers found life on 19 of their 23 dives, suggesting that these **deep-sea trench ecosystems may be more common than previously thought**.

Energy & Natural Resources

- Helion Energy has **broken ground** on the site of a planned fusion power plant, part of an optimistic initiative to supply a Microsoft data center with electricity by 2028.
- Ore Energy, a Dutch battery manufacturer, has become **the first to connect an iron-air battery to the grid**. Their prototype uses a reversible rust reaction—iron oxidizes to release power when discharging, and reverts back when charged—to provide up to 100 hours of energy storage, far beyond the 4–8 hours typical of lithium-ion batteries.
- China is proving that nuclear power in the West is **way more expensive than it needs to be**. While the US and France have seen costs climb for decades thanks to overregulation, bespoke reactor designs, and fragmented supply chains, China has kept costs low by doing the opposite.

COSTLY CONSTRUCTION

China has managed to rein in the expenses associated with commercial nuclear units. US nuclear costs rose sharply, in particular after the Three Mile Island accident in 1979, owing to a lack of standardization, rising labour and material costs and stricter regulations. In France, costs also increased as the country moved to larger and more complex reactor designs.



Thanks for reading Doomslayer! [Subscribe for free](#) to receive new posts in your inbox.

✓ Subscribed

Health & Demographics

- Timor-Leste has **eliminated malaria**.
- Brazil has opened the world’s largest **Wolbachia-infected mosquito factory** after field trials saw the insects **slash dengue, Zika, and chikungunya incidence**.
- Doctors in Italy have **restored a man’s sight** using an innovative gene therapy. The treatment involved injecting a viral vector into the man’s eye to deliver a working copy of a missing gene, allowing retinal cells to produce the protein needed for vision.

Science & Technology

- iNaturalist, a popular wildlife identification app, **has become a core tool in ecological research**. Since its launch in 2008, users have logged more than **250 million** species observations, contributing to over 5,000 peer-reviewed papers.
- A research project called African Next Voices is creating **an open-access database of 18 African languages** containing thousands of hours of translated and transcribed voice recordings. The goal is to make it easier for large language models to learn and support these widely spoken but underrepresented languages.

Violence & Coercion

- Female genital mutilation in Egypt, while still widespread, is **becoming less popular**. In 2014, 61 percent of girls ages 15–17 were mutilated; by 2021, that fell to 37 percent. Public support for the practice has also fallen; 30 percent of Egyptian women supported genital mutilation in 2021, down from 75 percent in 2000.

Read more news stories on our website

Progress Studies

Dan Williams challenges some common criticisms of social media.

Asterisk Magazine

Scapegoating the Algorithm

By Dan Williams...

Read more

13 days ago · 28 likes · 5 comments · Asterisk Magazine

Noah Smith explains how sweatshops lay the groundwork for lasting economic growth.

Noahpinion

The only thing worse than sweatshops is no sweatshops

I was going to write about U.S. politics today, but sweatshops came up in an online discussion, so I'll write about that instead. It's so rare to have interesting, substantive discussions about economic policy on social media, so I relish the chance to dive into one when it pops up...

Read more

5 days ago · 402 likes · 109 comments · Noah Smith

Derek Thompson debunks claims about monopolies driving up housing costs.

Derek Thompson

The Anti-Abundance Critique on Housing Is Dead Wrong

The sharpest criticisms of the book Abundance have sometimes come from the antitrust movement. This group, mostly on the left, insists that the biggest problems in America typically come from monopolies and the corruption of big business...

Read more

4 days ago · 569 likes · 157 comments · Derek Thompson

In Praise of Obsolescence: The Hidden Wealth in Products That Break

There is a tradeoff between innovation and longevity.

GALE POOLEY
JUL 31, 2025

17 9 4 Share ...



On a recent flight from Utah to Washington, DC, I made a new friend when I told a fellow passenger that I was going to give a presentation on how our planet was infinitely bountiful. Most people are shocked when you tell them that resources will be fine but that there are not enough people. They've been told all their lives that we live on a finite planet with finite resources and that if life is left "unchecked," it will cease to exist. We had a great discussion for four hours, during which he made an important observation: Products today don't seem like they last as long as they used to.

Grandma's refrigerator ran for 30 years, while refrigerators today seem to have a much shorter lifespan.

My fellow traveler's point is worthy of consideration, but there's another important factor to consider: innovation. Refrigerators that last forever miss out on the benefits of creative destruction. Harvard economist Joseph Schumpeter noted that for growth and prosperity to occur, old and inefficient products and production methods must give way to those that are new and better.

Older refrigerators often have a reputation for lasting longer, but trade-offs are at play. Pre-1990s models were built with simpler, more durable components, such as robust compressors, and could last between 20 and 30 years with minimal maintenance.

However, they were less energy efficient, consuming two to three times more electricity than modern units. Newer refrigerators, designed under stricter energy regulations (e.g., EPA's Energy Star standards), use advanced insulation, variable-speed compressors, and eco-friendly refrigerants.

These complex systems can be prone to failures, especially in electronic controls or sensors. As such, the average lifespan for modern units is between 10 and 15 years, though high-end brands such as Sub-Zero and Bosch can match the durability of older models.

Economist Alex Tabarrok [notes](#) that

Recent research from the [Association of Home Appliance Manufacturers](#) trade group shows that in 2010 most appliances lasted from 11 to 16 years. By 2019, those numbers had dropped to a range of nine to 14 years. (In some cases, such as for gas ranges and dryers, the lifespans actually increased.)

The 15 percent decline is partially explained by government regulation. Says Tabarrok:

Every appliance service technician I spoke to—each with decades of experience repairing machines from multiple brands—immediately blamed federal regulations for water and energy efficiency for most frustrations with modern appliances . . . The main culprit is the set of efficiency standards for water and energy use for all cooking, refrigeration, and cleaning appliances.

When prices rise faster than hourly wages, the culprit is almost always government interference through excessive regulation, burdensome taxation, or inflationary policies. Unlike entrepreneurs, government officials don't face the discipline of profit and loss. They spend without accountability and impose costs without consequences.

Entrepreneurs, by contrast, thrive by creating more with less. They compete to lower prices, improve quality, and serve more people. In the free market, profit is earned by solving problems, cutting costs, and accelerating learning. But when government breaks the feedback loop between cost and consequence, abundance begins to unravel.

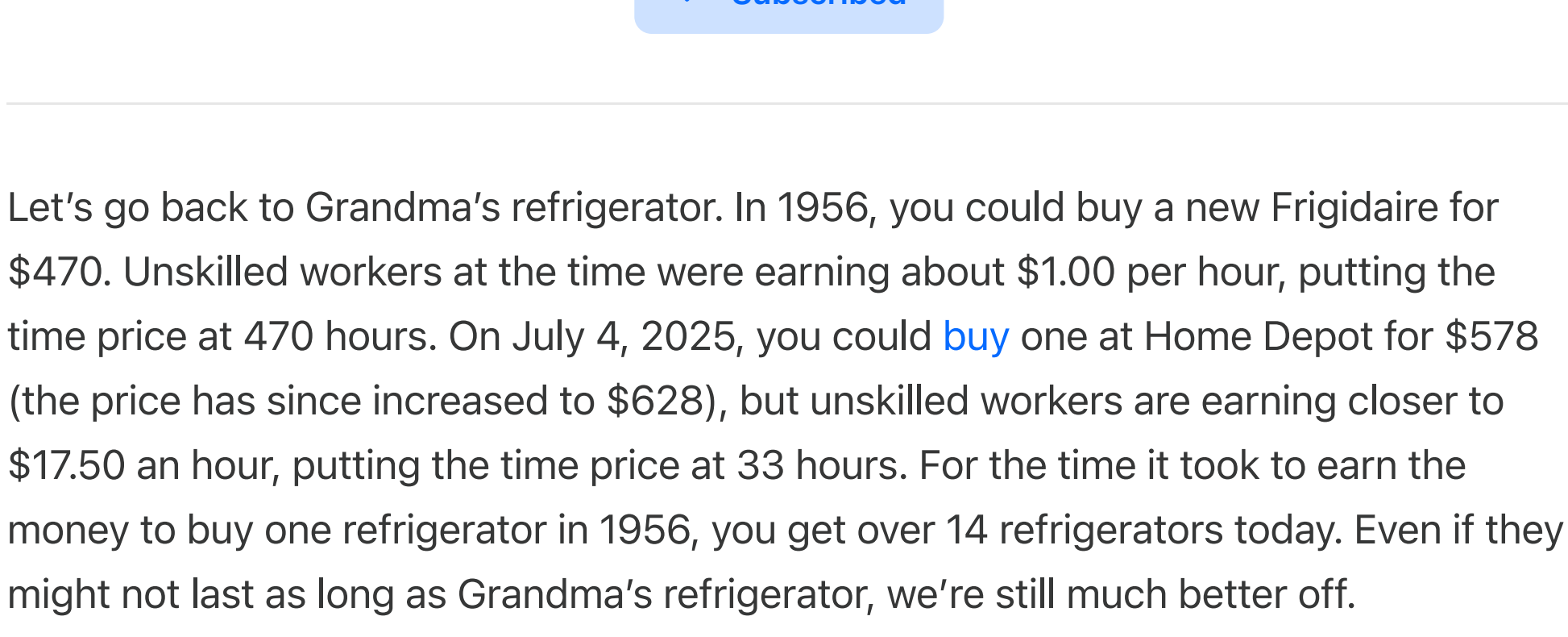
Contrary to what Marxist university professors and progressive politicians claim, businesses like to lower prices, not raise them. Lower prices attract more customers, increase sales, and generate higher profits through scale. Each additional unit produced creates an opportunity to learn, improve, and reduce costs. These *learning curves* are the engine of progress. Lower costs enable even lower prices, which expand markets further.

This is the virtuous upward spiral of free enterprise: knowledge compounding, prices falling, wealth expanding. The entrepreneur who learns fastest wins—not by hoarding but by sharing, scaling, and serving. The company that learns the fastest is usually the most profitable. Elon Musk's companies are not just building cars or rockets—they are climbing learning curves at light speed. Musk understands that the true source of wealth is not money or matter but discovering and sharing valuable new knowledge.

Thanks for reading Doomslayer! [Subscribe for free](#) to receive new posts in your inbox.

✓ Subscribed

Let's go back to Grandma's refrigerator. In 1956, you could buy a new Frigidaire for \$470. Unskilled workers at the time were earning about \$1.00 per hour, putting the time price at 470 hours. On July 4, 2025, you could [buy](#) one at Home Depot for \$578 (the price has since increased to \$628), but unskilled workers are earning closer to \$17.50 an hour, putting the time price at 33 hours. For the time it took to earn the money to buy one refrigerator in 1956, you get over 14 refrigerators today. Even if they might not last as long as Grandma's refrigerator, we're still much better off.



On the other hand, if a product has reached the apex of perfection, then you really do want it to last forever. Fingernail clippers may be one such example. I could be wrong, but I don't know how to improve them. I've also had the same ones for 20-plus years.

Here are a few other [examples](#):



But cars are a different story. My first car was a 1956 Chevy Bel Air. Back then, you could buy a brand-new one with the base V-8 engine for about \$2,400. Even with factory options and accessories, it typically stayed under \$3,000. If an unskilled worker earned \$1.00 an hour, that car would cost 3,000 hours of time.

Fast-forward to 2025, and unskilled compensation is around \$17.50 an hour. At that rate, the equivalent money price of the Bel Air would be about \$52,500—roughly the price of a new Tesla Model Y, [one of the most popular cars](#) in the United States.

So, here's the question: How many 1956 Chevys would I have to give you in exchange for your 2025 Tesla?

Having personally experienced both, I wouldn't trade a single Tesla for a thousand Bel Airs. As iconic as the '56 Chevy is, it simply doesn't compare to what a Tesla delivers. In fact, if someone offered me a brand-new '56 Chevy today, I'd consider it more of a liability than an asset. The Tesla far surpasses the old Chevy in every category: reliability, safety, comfort, efficiency, and especially maintenance. And nothing even comes close to the magic of Tesla's full self-driving feature.

Some products are perfect—they work great and are extremely affordable. But most others can still be improved. We don't want them to last forever.

Tip of the Hat: Shane McPartland

Find more of Gale's work at his Substack, [Gale Winds](#).