



A special year-end publication

The Darwin energy award winner: Powerline Patty



Powerline Patty is the winner of this year's "Darwin energy award." On a bright summer day in Eugene, Oregon, Patty decided that she might better enjoy the view from her backyard by climbing a nearby transmission tower. She accidentally touched a 46,000 volt line, leading to a huge electric shock and a long fall. Patty survived but was charged with trespassing by the police department. She said, "I know squirrels do it ... and I was wearing Crocs."

Note: This award is given in honor of Charles Darwin, the British naturalist who came up with the idea of evolution; the Darwin Award commemorates those who don't understand or fully appreciate the power of energy.

A few energy fails, in photos



When in doubt, blame the usual suspect (your local utility)



The story seems straightforward: early in the morning on September 20, a fire broke out at the Elkhorn Moss Landing battery storage facility in Monterey, California. Emergency responders followed current protocol for battery fires and "let the blaze burn itself out while working to prevent spread." Residents were evacuated or forced to shelter-in-place. Headlines implicated [PG&E](#). But it was a [Tesla](#) battery Megapack that caused the fire. Clearly Tesla > PG&E in the court of public opinion.

"Florida Man" award goes to Eric Silagy



Florida State Senator José Javier Rodríguez proposed a law that would allow landlords to sell cheaper rooftop solar power directly to their tenants, bypassing Florida Power & Light, the regional utility.

"I want you to make his life a living hell ... seriously," [FP&L's CEO Eric Silagy](#) wrote in an email to two of his vice-presidents. Within minutes FP&L hired Matrix, LLC, a political consulting firm that specializes in shock-and-awe political campaigns. Needless to say, Rodríguez was voted out of office ... losing to an opponent with the same last name who admitted that he was [bribed](#) to run against the incumbent.

Unsung climate hero of the year: beavers



It turns out that beaver dams filter water [better](#) than human systems. The wood dams raise water levels upstream, diverting water into surrounding soils and secondary waterways, collectively called a riparian zone. These zones act like filters, straining out excess nutrients and contaminants before water re-enters the main channel downstream.

Which Joe had a better year?

The good:

- Senator Joe Manchin co-sponsored the Inflation Reduction Act, which authorizes \$369 billion (USD) incentives and credits for clean energy.
- President Joe Biden pushed historic public investment in solar, clean hydrogen, nuclear, offshore wind, and other cutting-edge low-emission energy technologies.



The bad:

- Senator Joe can't get his colleagues to support his permitting reform legislation, a sidecar deal to the Inflation Reduction Act.
- President Joe allowed the Auxin Solar tariff [petition](#) to drag on waaaay too long.

The ugly: President Joe went to Saudi Arabia and asked (begged) OPEC+ to increase production. The Saudi's agreed. Then they cut production at about the same time Air Force One touched down at Andrews Air Force Base.

Best energy acronym



Project title: INnovative Geothermal Exploration through Novel Investigations Of Undiscovered Systems ([INGENIOUS](#))

Honorable mention: The Building Energy Assessments, Solutions, and Technologies lab at the University of Cincinnati ([BEAST](#)).

Worst energy acronym



The HOME Act was submitted to Congress ... the letters stand for "Home **O**bliteration **M**easures for **E**fficiency." (No surprise, the bill did not pass.)

Editor's note: The reigning all-time champion for worst acronym is **US President Jimmy Carter** and his inspired call in 1977 for public mobilization in pursuit of energy independence: Moral Equivalent Of War ... aka "[MEOW](#)."

Funny/Not Funny



You will be forgiven if you forgot that China hosted the 2022 Winter Olympics. [They didn't have snow](#). As the climate changes, perhaps it's time to rethink who hosts the Olympics ... and where. (Maybe Finland should host the Summer Olympics?)

"Words fail" award

Protesters dressed as dead mermaids staged a demonstration on the banks of Italy's longest river calling for climate change action. (Yes, there are only three "[dead](#)" mermaids.)



"Words fail" award II



A number of farms in Brazil [took advantage](#) of dry conditions caused by the drought to start thousands of fires to clear land for planting and pastures.

Technophiles might want to reconsider ...



a few technologies that should not exist:

- Whole-house tankless electric hot water heaters .
- EV chargers larger than 8 KW - the vast majority of EV owners believe that larger chargers are not necessary.
- Heat pumps that don't operate outside the temperature ranges of the regions where they are installed.

a few technologies that we might want to consider:

- Single faucet tankless hot water heaters.
- Geengineered weather (rain) to combat forest fires.
- Water flow in aqueducts as a source of hydropower.
- Oil and gas companies profiting from carbon removal.

"Are you sure this is a good idea?" award: direct air capture



Is DAC the next ethanol? Current direct air capture technologies (DAC) use [significant](#) amounts of energy in heat and electricity.

Best energy-related advertising campaign of the year



Ford released the Ford F-150 Lightning EV, and then followed with the best [social media](#) marketing campaign of the year.

- "Wondering who told me EVs need to run on 100% all the time."
 - "What charging station?"
- And, ...
- "Only drives to school and work each day; worried that 250 miles of range isn't enough (photo insert)."

Captain Obvious Award



To reach net zero emissions by 2050, the European Commission estimates that EU greenhouse gas emissions need to drop by 85-95%. According to the Commission's climate policy chief, "That amount is not negligible." Cut emissions by 90% is [not](#) negligible? What?

Attention energy CEOs:

You only get one chance to make a first impression



Snappr ranked the best and worst CEO [headshots](#). Energy CEOs did NOT fair well:

- Rank: The mining industry had the 2nd worst CEO headshots, pipelines (midstream) had 4th worst, and petroleum refining had 6th worst.
- Worst headshot: Christopher Crane, Exelon.
- Overall: there were no CEOs of energy companies in the top ten best photos.

Best Dad energy jokes of 2022



3rd place:
Never trust an electrician with no eyebrows.

2nd place:
My friend told me how electricity is measured and I was like, "Watt?"

1st place: A superconductor walks into a bar. The bartender says, "Get out! We don't serve your kind here." The superconductor left without resistance.

Worst peer-reviewed article



Cutting 23-28% of all trees in forests in the western US will have a low impact on preventing forest fires, but cutting 80% of all trees in US forests is a [better](#) way to prevent wildfires. (Why hold back? Why not just cut 100% of all trees and never have a forest fire?)

Who had the "best year" in energy?



Russia?
Coal?
Oil super majors and NOCs?
Renewables?
[All energy producers](#) (except Venezuela; see next).

Who had the worst year in energy? Venezuela



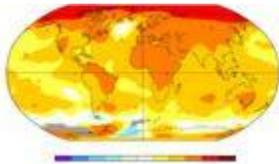
Europe needs fuel but won't buy from Russia. After sanctions on Venezuela were lifted, the country's government announced it would [suspend](#) all oil and gas shipments to Europe pending renegotiated prices. The EU and the rest of Europe didn't blink and immediately rejected Venezuela's attempt at extortion.

The "Who has it bad?" award



Mongolia. Unfortunately located between Russia and China, who both want its rich rare earth deposits. [Neither neighbor](#) respects Mongolia's borders.

Another "No Good Very Bad Year"



The climate (again), especially the [Arctic](#), the fastest warming region in the world. Note: the climate has won this award 10 years in a row because the years 2013 through 2022 rank among the top 10 warmest on record, according to [NOAA](#).

Energy-related flip-flop of the year



The USPS bought 165,000 gas-powered vehicles in spite of President Biden's commitment to and investment in a federal fleet of EVs. In response to intense [backlash](#), the Postal Service doubled its order of EV delivery trucks, from 5,000 to 10,000.

Honorable mention: Norway, the leader in the energy transition to renewables, is producing record amounts of oil and gas.

Irony of the year in 2022 is the winner of last year's flip-flop award: Germany



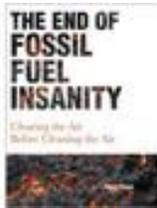
In 2020, the German government and US President Donald Trump engaged in a political battle over the Nord Stream gas pipeline — the Trump administration categorically opposed Russian shipment of oil and gas to Europe, while Merkel's government insisted that it would not compromise its support. Then, in 2021, Germany reluctantly [suspended](#) certification of the Nord Stream 2 gas pipeline.

Occam's razor for 2022



CO2 is a waste management problem.

Please stop



Can we please have fewer conspiracy theories in 2023? Such as [The End of Fossil Fuel Insanity](#), by Terry Etam: "Oil and gas is in incredibly high demand ... but the world's cultural elite has 'scientifically' linked any weather event – anything at all – with climate change, which is linked to 'fossil fuel combustion', which is therefore bad, and the mere suggestion of increasing production is unacceptable." Seriously, reductionist

arguments like this help no one and prove nothing.

Please stop - honorable mention:



80% of the world's 2,000 largest publicly listed companies have announced 'net-zero' emissions targets. Consider KitKat, which has [committed](#) to becoming carbon neutral by 2025. (Clearly, we have nothing to worry about.)

The energy capital of the world?



How is it that Texas, arguably the energy epicenter of the world, did not effectively handle either the cold front on February 14 or the heat wave on June 12th.

Try saying that without laughing...



1st place: "Yes, we are doing this. But who started it?"
— Russian President Vladimir Putin admitting that Moscow targets Ukraine's critical civilian infrastructure, and defends the attacks with a rhetorical question.

2nd place: "Russia is flawlessly fulfilling all contractual [petroleum] obligations."

— Kremlin spokesman [Dmitry Peskov](#)

Editor's note: Russia seems to dominate this award. Last year Russian President Vladimir Putin won: "We are not using natural gas as a weapon."

COP-out



There've been 27 COPs, which begs a few questions:

- Why?
- Why was Coke (aka "[greenwasher](#)") allowed to sponsor COP27?
- What do the COP's accomplish? Once in a while, delegates agree to a common global policy. Meanwhile, the event contributes significant emissions. For instance, COP27 contributed 4 Titanics. (Note: The carbon footprint of COP27, measured in Titanics, where each Titanic represents 46,328 tons of carbon dioxide equivalent CO₂e.)
- Why go? [Delegates](#) had to deal with open sewage, bewildering signs ... and very little food and water.

COP-stop



If I set personal health goals the way COP27 sets carbon goals, then I will ...

- ... stop drinking by 2050 ... which will help my liver today.
- ... eat vegetables every other day and fast food on the other days.
- ... exercise 15% more often every other year.

American Civil War Redux



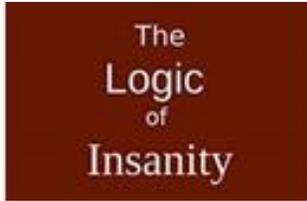
The American natural gas civil war: Exactly 40% of US states are trying to ban use of gas in buildings, and exactly 40% of US states are trying to ban states from banning the use of gas in buildings. (In other words, the same number of states on each side are working hard to [ban](#) the other.)

What? We need more CO₂, not less?



There is a CO₂ shortage ... for beer. (Large-scale producers of beer and soda are typically located near power plants and buy CO₂ at a discount.)

The logic of insanity



We all know that to decarbonize we need storage. But, the scale is [way beyond](#) what is possible:

- Battery cell manufacturing must increase from 0.7TWh to 20TWh each year.
- Lithium and nickel sulphate production must increase by 20 times.
- Graphite anode output must increase by 25x.
- Manganese sulphate output must increase by 22x.
- And we must increase cobalt supply by 5x.

Promises, promises



About 91% of the global economy and 128 countries have made net-zero pledges. Do you feel better now?

How did Discovery Channel get away with it?



Heavy D and Diesel Dave - the Diesel Brothers - have to pay \$850,000 for violating the Clean Air Act when they hosted a Discovery Channel [episode](#) on how to modify or remove pollution control devices in automobiles. Perhaps the Discovery Channel should also pay a fine?

Don't worry - of course there is no way this means you



For every thousand people alive and on earth right now, 973 often inhale toxins and 27 do not.

Don't worry - of course there is no way this means us



In his 1926 novel, *The Sun Also Rises*, Ernest Hemingway's character Mike Campbell is asked, "How did you go bankrupt?" Mike replies, "Two ways. Gradually and then suddenly."

Signs of an unintelligent market I



Obituaries for oil and coal may have been written prematurely. Energy sources don't disappear as easily or quickly as technology, like how the Palm Pilot was immediately replaced by the Blackberry which was replaced by the iPhone. In fact, the consumer tech/disruption framework is completely the wrong way to think about the energy transition.

Signs of an unintelligent market II



For a fee, [YepYou](#) will plant a tree to offset your breathing. And then there is a company called, "[Offset My Life](#)." Sigh.

Apollo (the Ancient Greek god of prophecies) says ...



In the twentieth century, wealth and power was often determined by access to or pursuit of oil. This century will have different kingmakers; perhaps we will call them The Shovel Wars.

G.O.T. "(Next) winter is coming ..."



Nothing stopped Napoleon's advance into Russia in 1812 or Germany's invasion of the Soviet Union in World War II ... except winter. *Lesson: the severity of Europe's energy crisis will test everyone ... especially next winter, when reserves and storage are low.* If this winter is cold, next winter will be tough.

Worst projection of 2022



When 2022 opened, the International Energy Agency called for an end to new oil and gas exploration; one month later, they called for more.

Best satire about energy



First place: Carbon Offsets, by John Oliver

(Note: all videos have profanity.)

"One in five of the world's 2,000 largest publicly listed companies have now committed to a ['net-zero'](#) emissions target, which sounds great, and you may have heard them bragging about their claims, like ... KitKat is committed to becoming carbon neutral by 2025. But the key phrasing comes at the end, when they say 'and we'll offset any remaining carbon.'"

Second place: Utilities, by John Oliver

"Electric utilities are exceptionally prone to scandal. In fact, just Google your utility company and scandal. It's basically like Googling your local Jimmy John's and E. coli."

Third place: Former US Sec. of Energy, Ernie Moniz, by John Oliver

"President Xi should be telling Putin, 'Don't cross that line.'"

For the first time ever, the annual Elon Musk Award does not go Elon Musk.

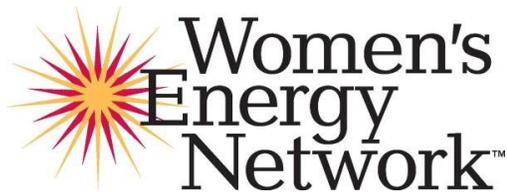


Winner: Auxin Solar CEO Mamun Rashid. "We are completely justified.... I am surprised to be deemed a villain in this story."

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