

Climatism or Energy Humanism?

Presented to:
Texas Captive Insurance Association Annual Conference
Austin, TX

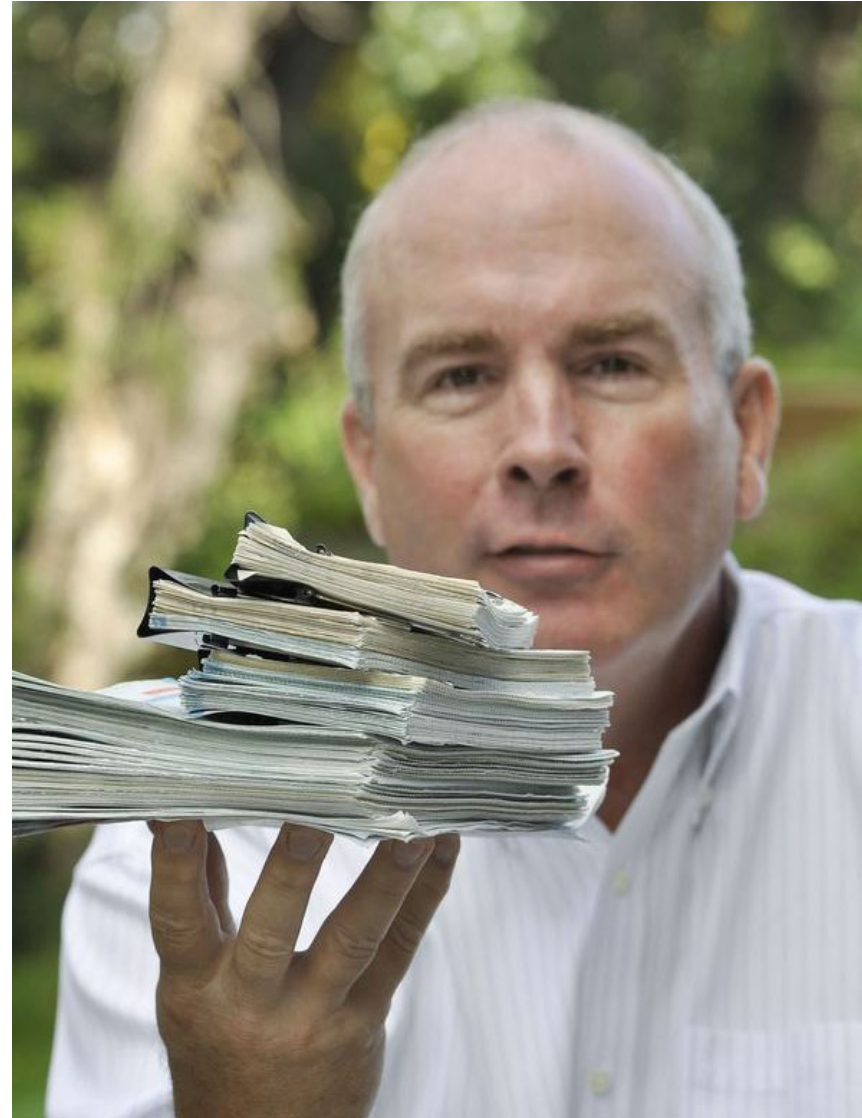
October 9, 2024



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Skilled at Threat Assessment







September 6, 2013

- “Thanks to the lower price for natural gas, families saved roughly \$32.5 billion in 2012.”
- “The windfall to all U.S. natural gas consumers –industrial and residential— was closer to \$110 billion. This is greater than the annual income of all the residents in 14 states in 2011.”



Climate activists light up IMO meet with anti-oil and LNG protest



U.N. Chief Antonio Guterres

“**Humanity has opened the gates to hell**’ by heating the planet, U.N. Secretary General Antonio Guterres told a one-day climate summit held alongside the general assembly, where he lamented the **‘naked greed’ of fossil fuel interests.**”

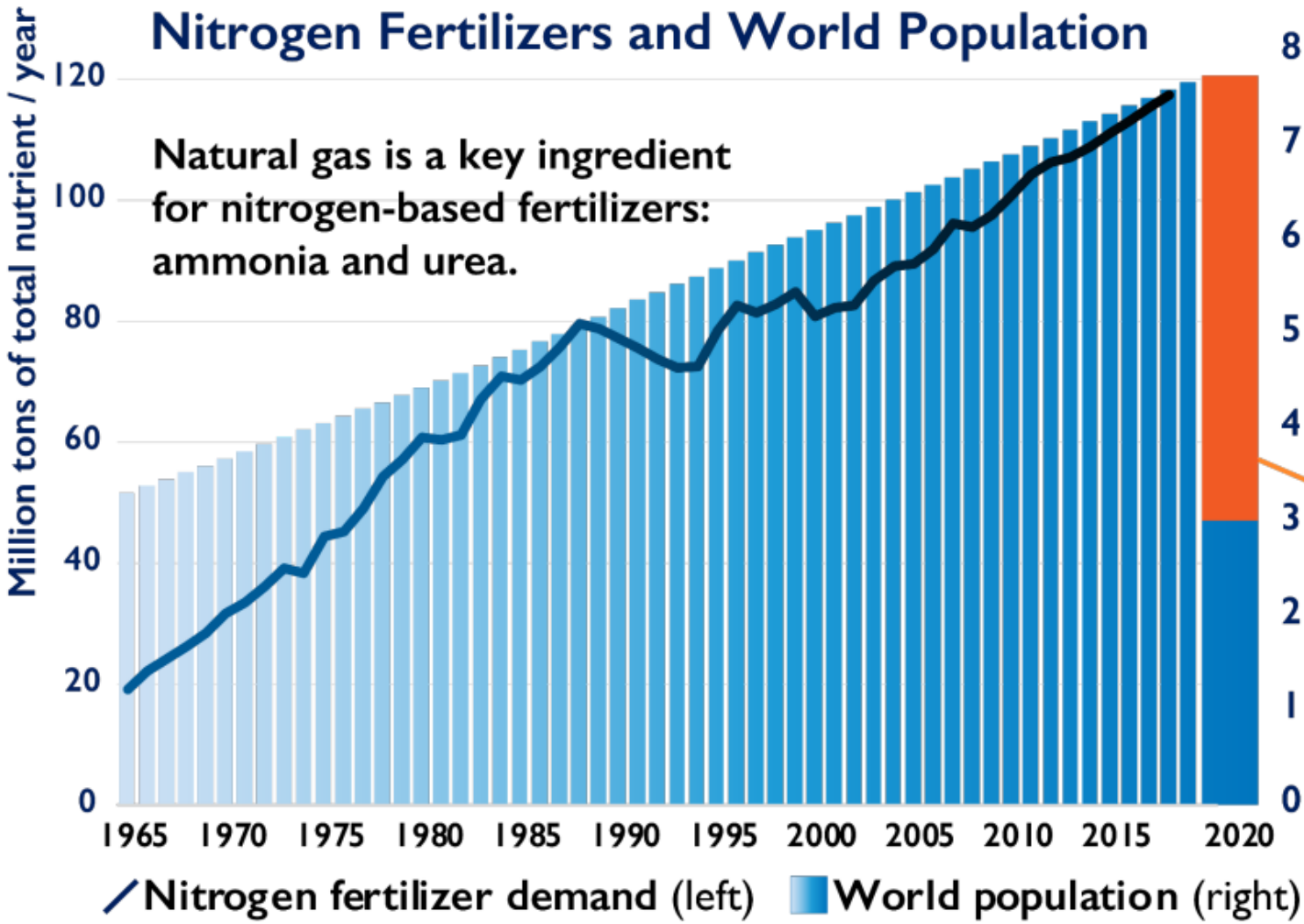
The Pope says NOPE to fracking.

“The world must rapidly ditch fossil fuels and end ‘the senseless war against creation’,” Pope Francis.

He called on people to repent for their “ecological sins.”



Food for Thought: Natural Gas is Critical for Global Food Production

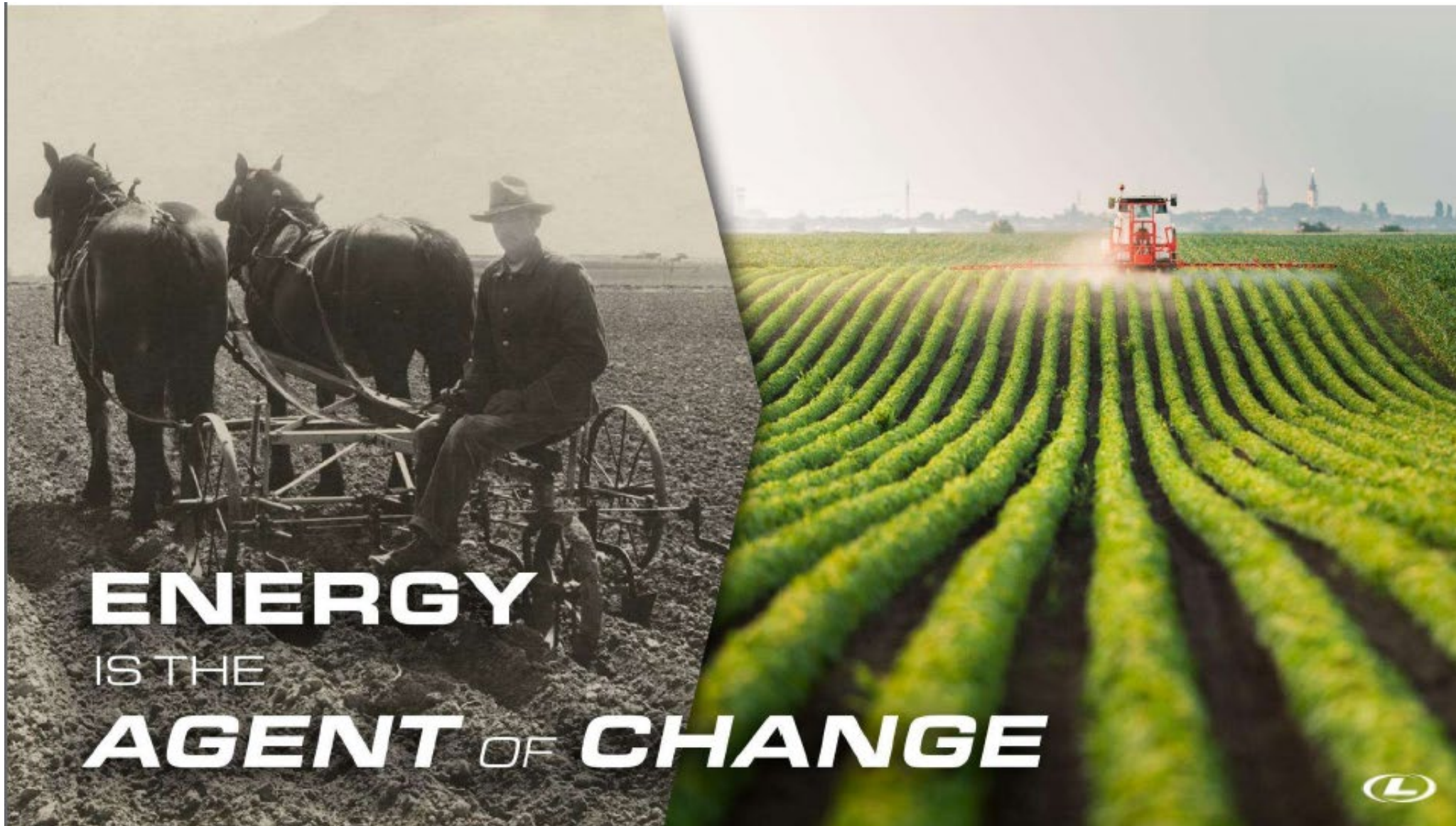


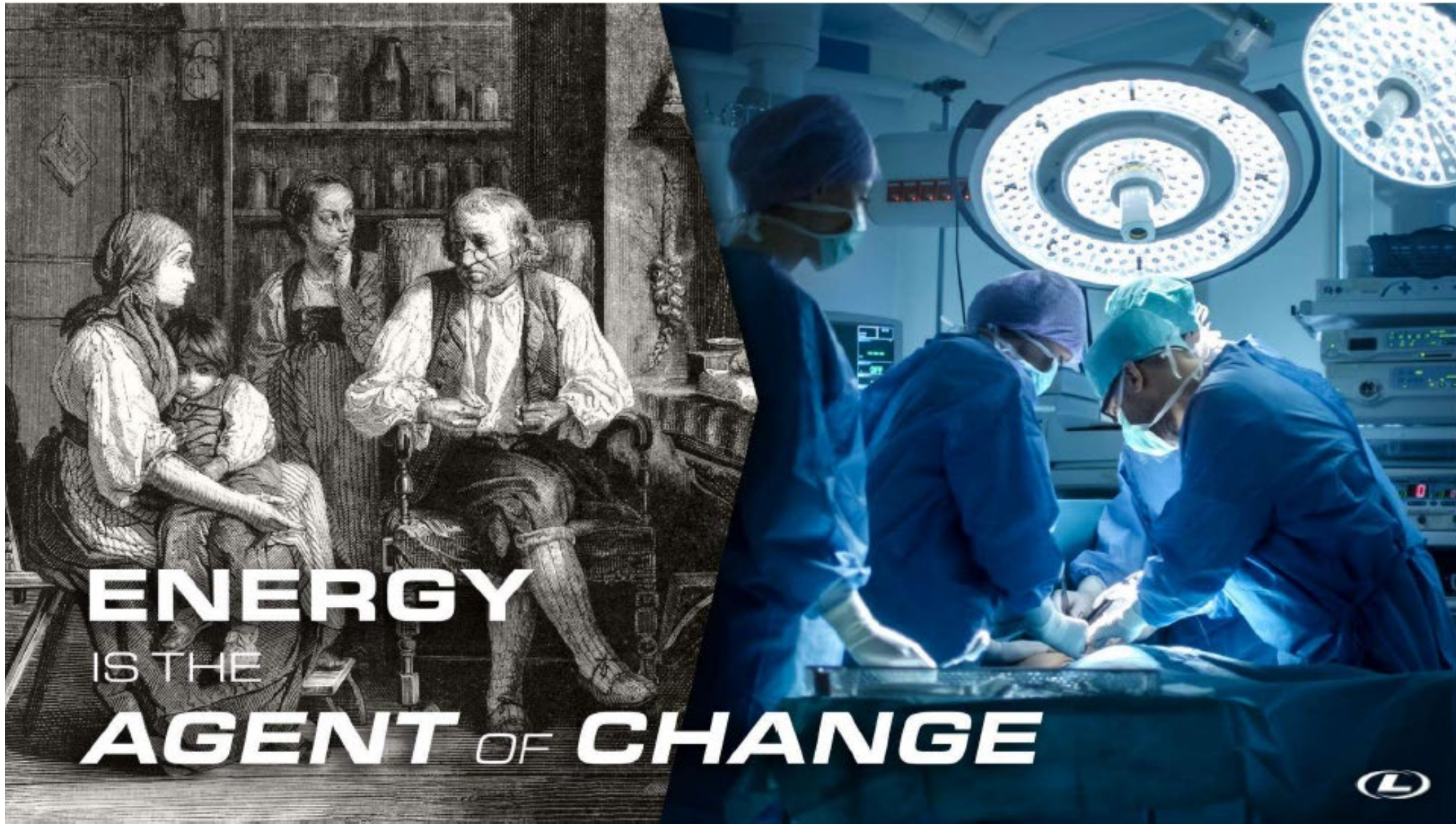
Without fossil fuel-based fertilizers, agriculture can support, at most, 3 billion people on plant-based diets, vs. today's 8 billion on mixed diets.

Sources: Vaclav Smil, FAO, World Bank, Statista,

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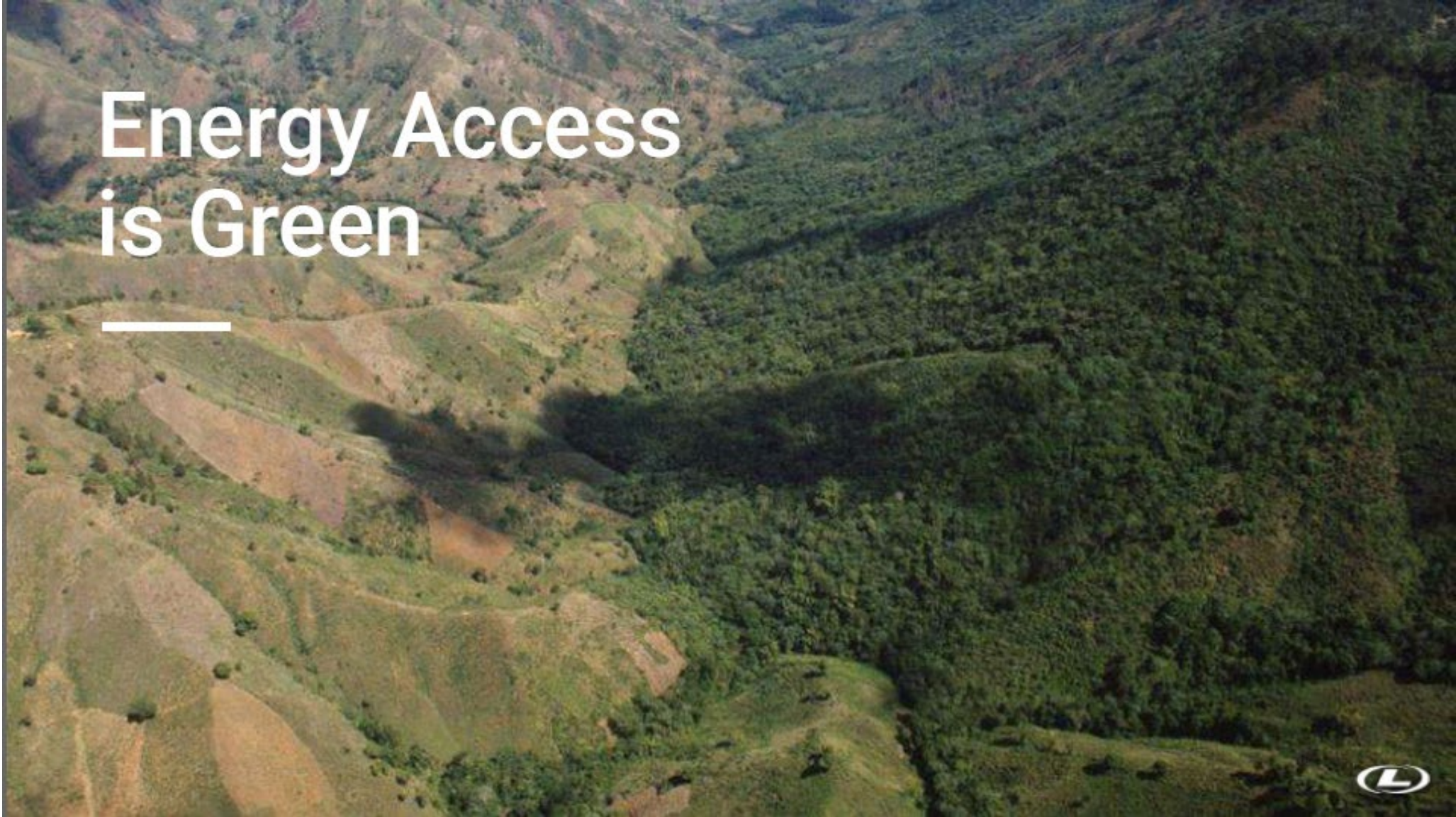




Energy Access is Illuminating



Energy Access is Green



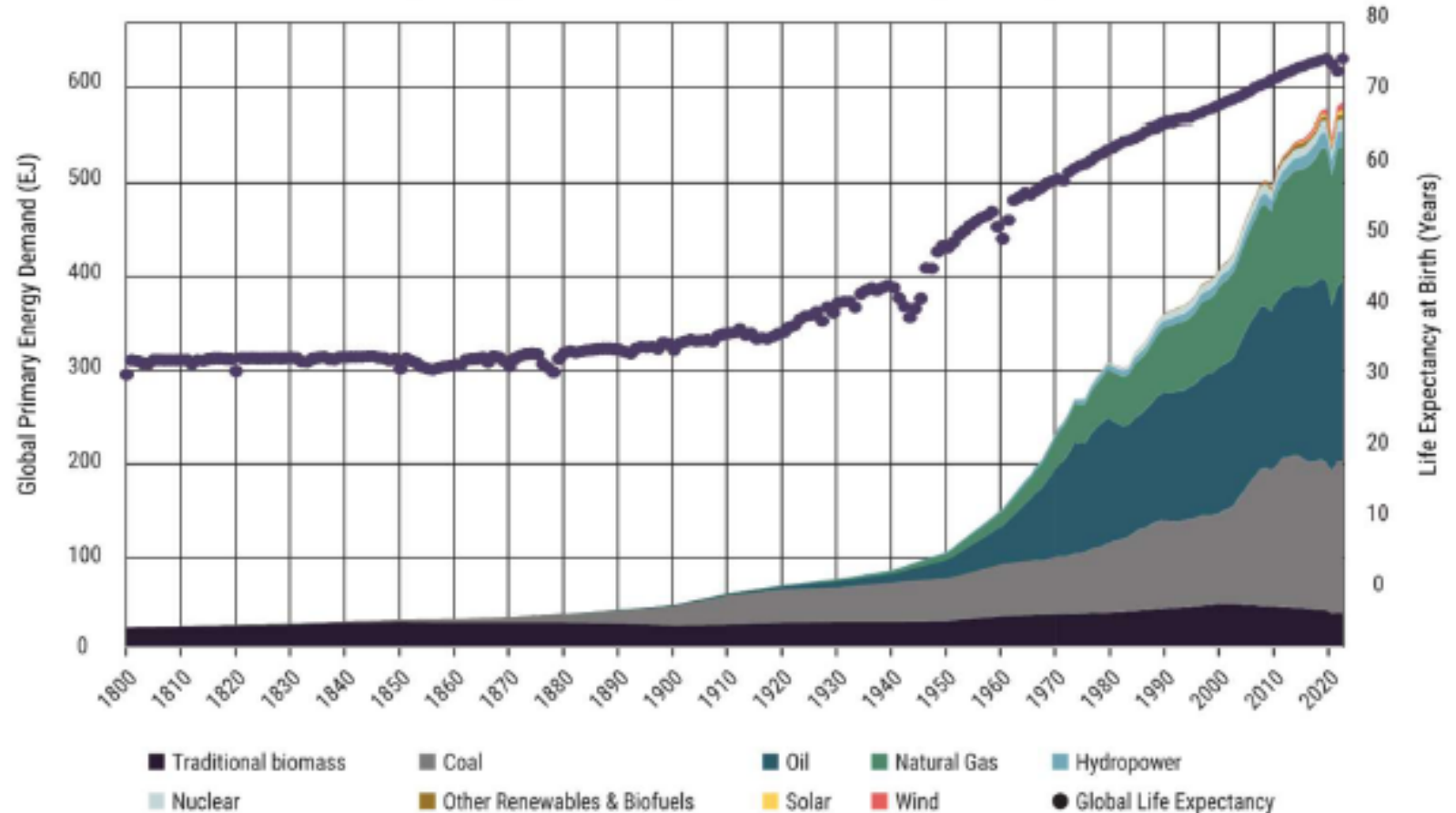


ENERGY

Hydrocarbons Transform Human Lives

Life expectancy experiences a remarkable surge, coinciding with the rapid and overwhelming increase in energy supply upon the arrival of hydrocarbons.

Figure 1.1
Global Primary Energy Demand by Source vs. Life Expectancy 1800–2022

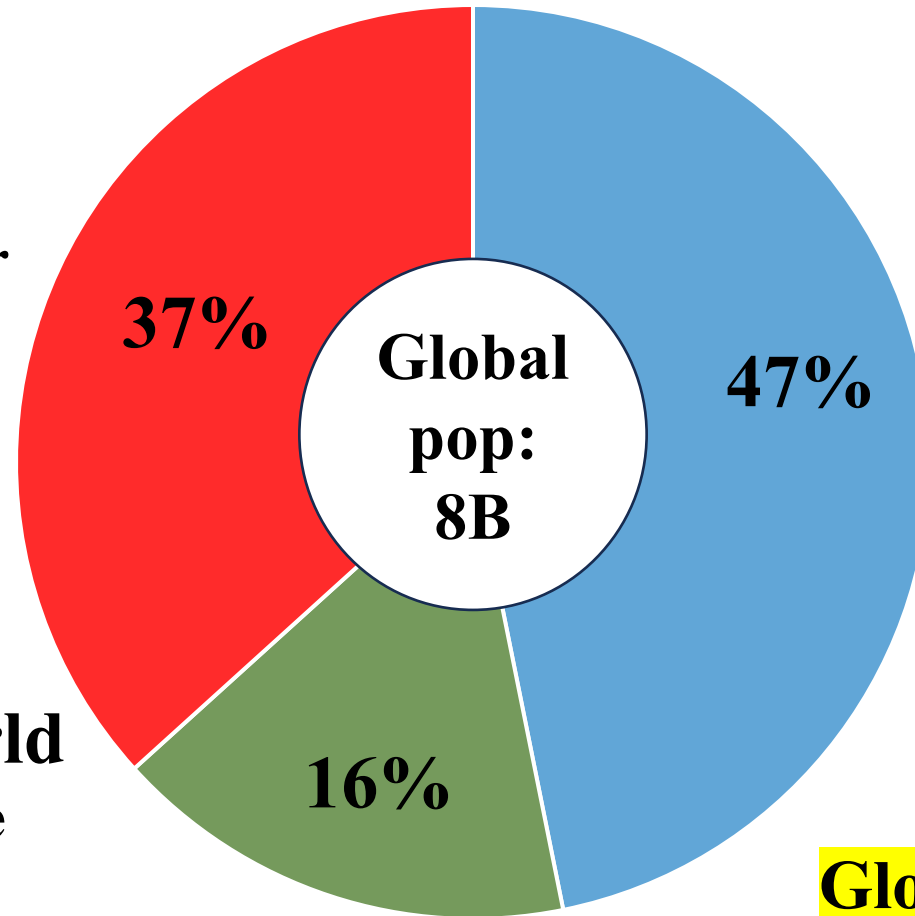


Source: Smil, Vaclav, 2017. Energy Institute - Statistical Review of World Energy (2023), IEA, OWID, Gapminder, and Bijou Insights

47% Of People On Earth Live In Electricity Poverty

High-Watt World
2.9 billion people
>4,000 kWh/capita/year

Low-Watt World
1.4 billion people
1,200 to
4,000 kWh/capita/year



Unplugged World
3.7 billion people
≤1,200 kWh/capita/year



Large U.S. kitchen refrigerator =
1,200 kWh/yr

Global average:
≈3,500 kWh/capita/year

Electricity Frees Women & Girls From The Pump, The Stove, And The Washtub



West Bengal, India, 2016

2.5 Billion Women & Girls Are Still Washing Clothes By Hand



Nicholas County, Kentucky, 1916

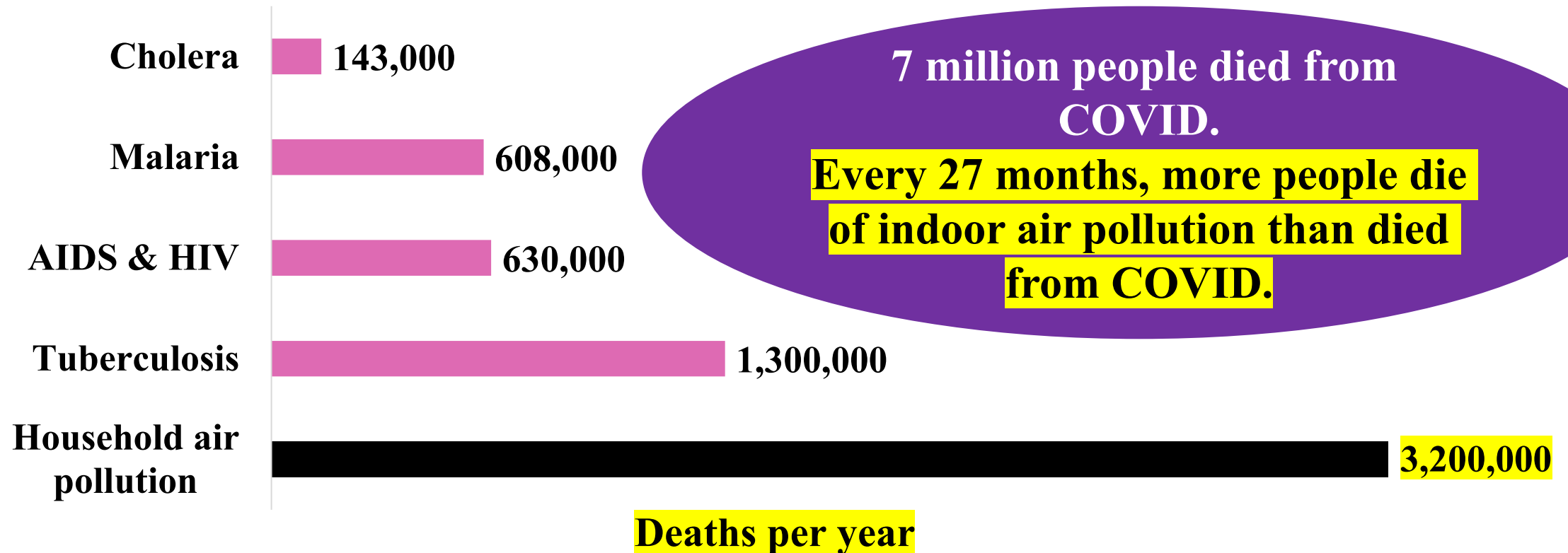
Hans Rosling: “To my grandmother, the washing machine was a miracle”



2.3 Billion People Are Still Cooking With Solid Fuels



Indoor Air Pollution From Low-Quality Fuels Kills More People Than Diabetes (2M) Or Alcohol (3M). It Kills More Than Cholera, Malaria, AIDS/HIV, & Tuberculosis Combined



Environmentalism Has Been Supplanted By Climatism

Sierra Club is committed to eliminating the use of fossil fuels, including coal, natural gas and oil, as soon as possible.

— Sierra Club

Use clean renewable energy, not fossil fuels; cut our greenhouse gas emissions in half by 2030...none of that can happen unless we have a robust, inclusive and anti-racist climate movement.

— League of Conservation Voters

“Natural gas” is just another fossil fuel, helping to power the climate crisis.

— Natural Resources Defense Council

The Climatism Industry In The US Alone Is A \$4.7 Billion Per Year Business

Rockefeller Brothers Fund	\$838	Sierra Club Foundation	\$123
Natural Resources Defense Council	\$548	League of Conservation Voters	\$71
World Resources Institute	\$306	Union of Concerned Scientists	\$64
ClimateWorks Foundation	\$350	Center for American Progress	\$40
Environmental Defense Fund	\$385	Center for Biological Diversity	\$34
National Audubon	\$361	Greenpeace	\$33
Windward Fund	\$224	Climate Reality Project	\$30
Climate Imperative Foundation	\$289	EDF Action Fund	\$29
The Energy Foundation	\$133	Public Citizen Foundation	\$25
Earthjustice	\$198	350.org	\$23
Sixteen Thirty Fund	\$192	Friends of the Earth	\$20
Sierra Club	\$184	Nextgen Climate Action	\$20
Rocky Mountain Institute	\$164	Total	\$4,684

Gross receipts of top 25 Climate NGOs, in \$Millions

Climatism Is A Luxury Belief

Luxury beliefs are ideas and opinions that confer status on the upper class, while often inflicting costs on the lower classes.

— Rob Henderson

The Grand Canyon-Sized Chasm
Between Elites and Ordinary Americans

Relative to the masses, elites are more likely to agree with statements such as “We should do everything possible to fight climate change, even if it slows economic growth.”

“We’re going through **an incredible transition that is taking place that, God willing, when it’s over, we’ll be stronger and the world will be stronger and less reliant on fossil fuels when **this is over.**”**

- **President Joe Biden, May 23, 2022**

“Transitioning to clean energy is reliable, less expensive & critical for climate goals.”

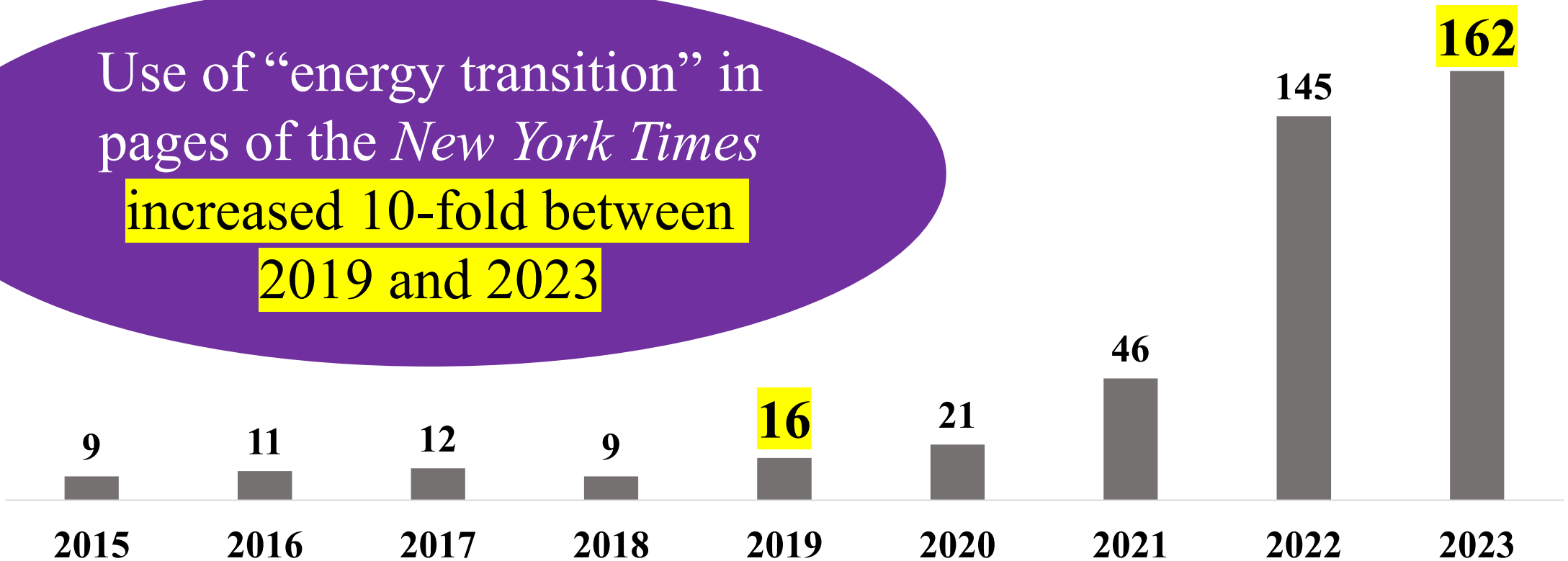
- **Sierra Club, July 5, 2023**

President Biden is “launching a new Clean Energy Supply Chain Collaborative to work with international partners to diversify supply chains that are critical to a clean and secure energy transition.”

- **White House Press release, April 22, 2024**

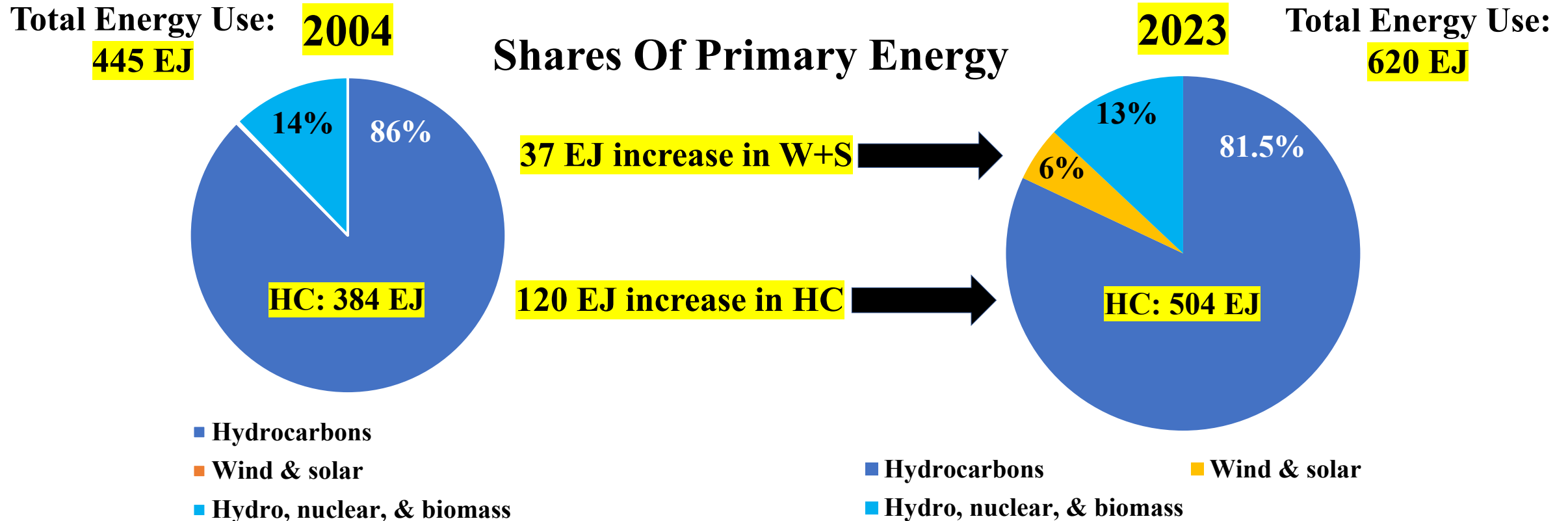
Appearance Of “energy transition” In *New York Times*, 2015 to 2023

Use of “energy transition” in
pages of the *New York Times*
increased 10-fold between
2019 and 2023

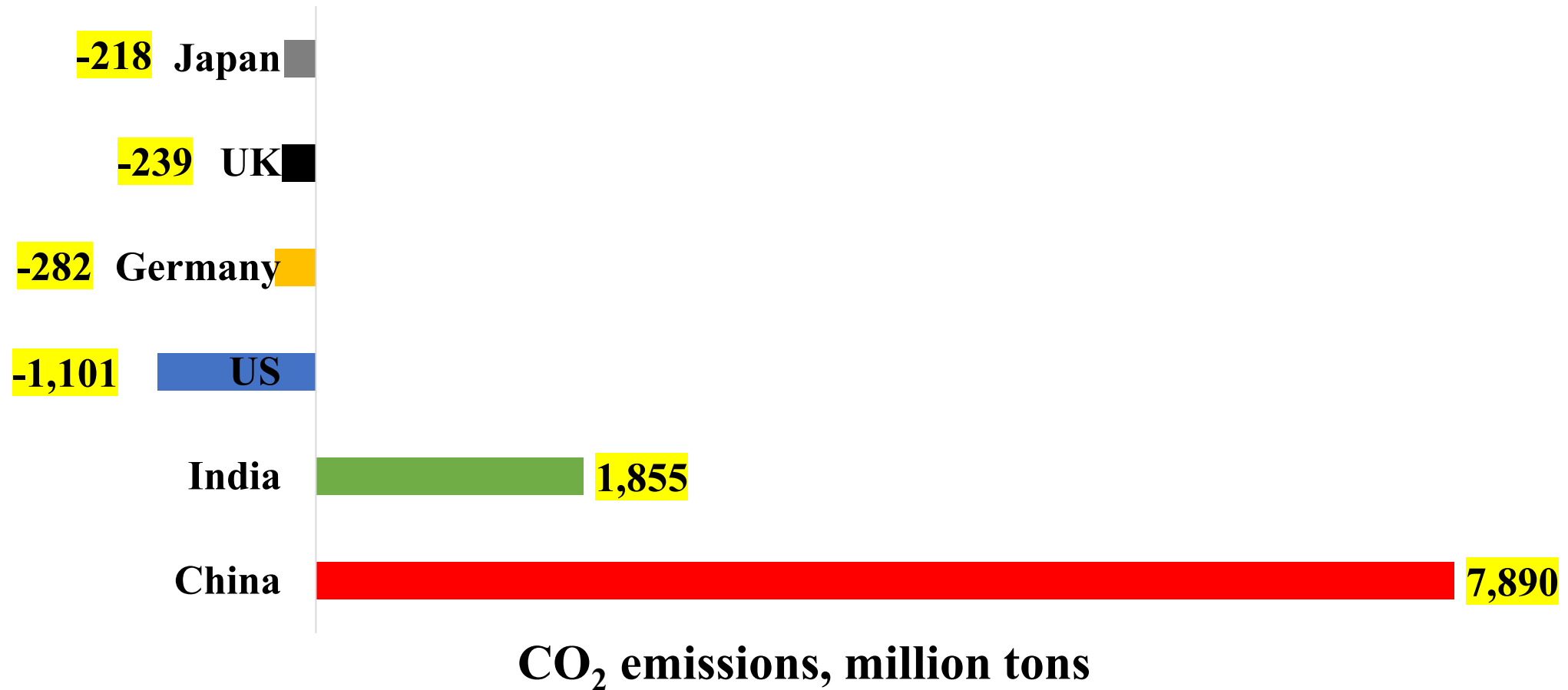


What Energy Transition? From 2004 to 2023, Global Spending On Wind + Solar Totaled \$4.7 Trillion

Yet Hydrocarbon Use Increased 3.2x Faster



Change In CO₂ Emissions In The Six Largest Economies, 2000 to 2023



EVs Are The Next Big Thing...



● “The electric automobile will quickly and easily take precedence over all other kinds of motor carriages **as soon as an effective battery of light weight is discovered.**”

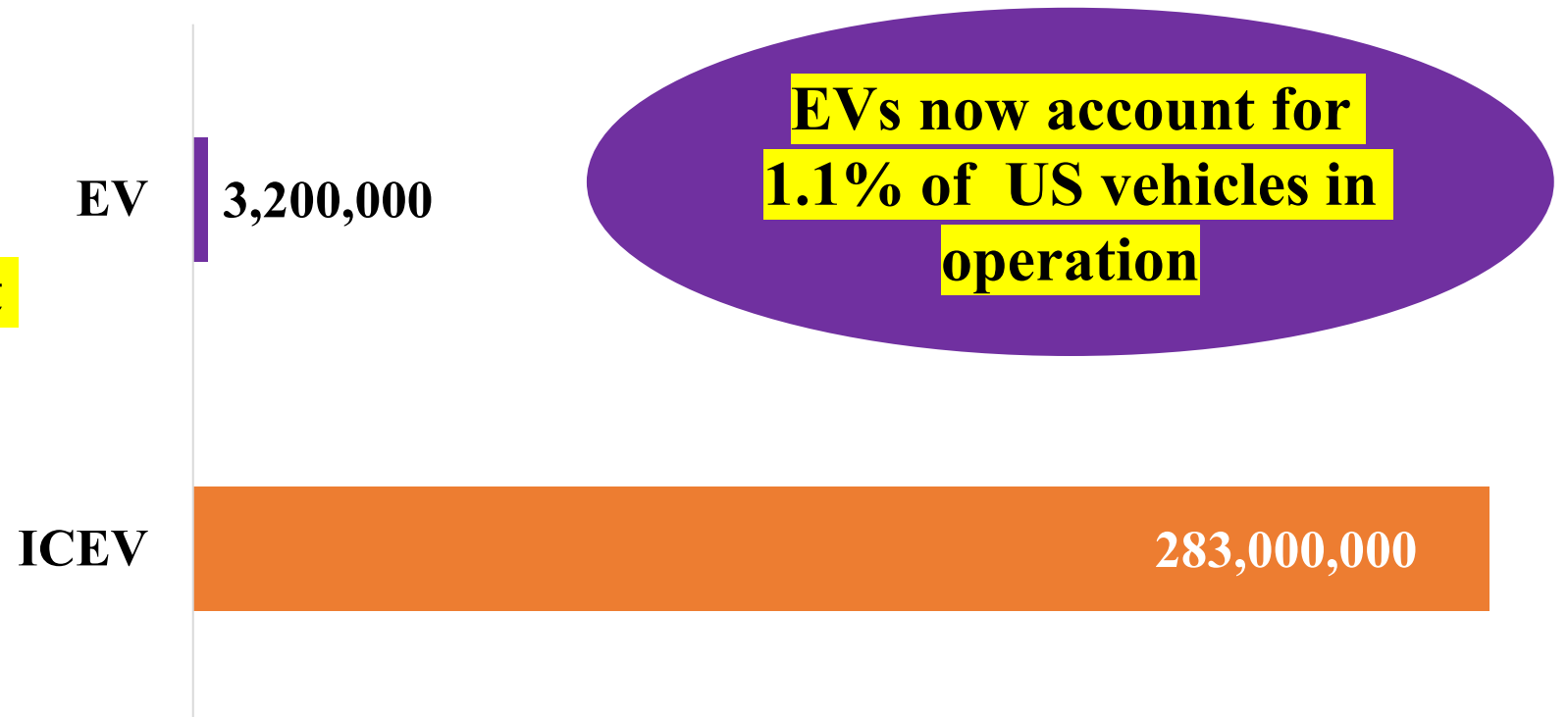
— *Los Angeles Times*, **1901**

● “Prices on electric cars will continue to drop **until they are within reach of the average family.**”

— *Washington Post*, **1915**

EV Sales Are Growing, But EVs Remain A Tiny Fraction Of US Fleet

The rate of EV growth was slower than some automakers had anticipated...we still expect significant growth in share of electric vehicles in operation over the next decade — S&P Global Mobility, May 30, 2024

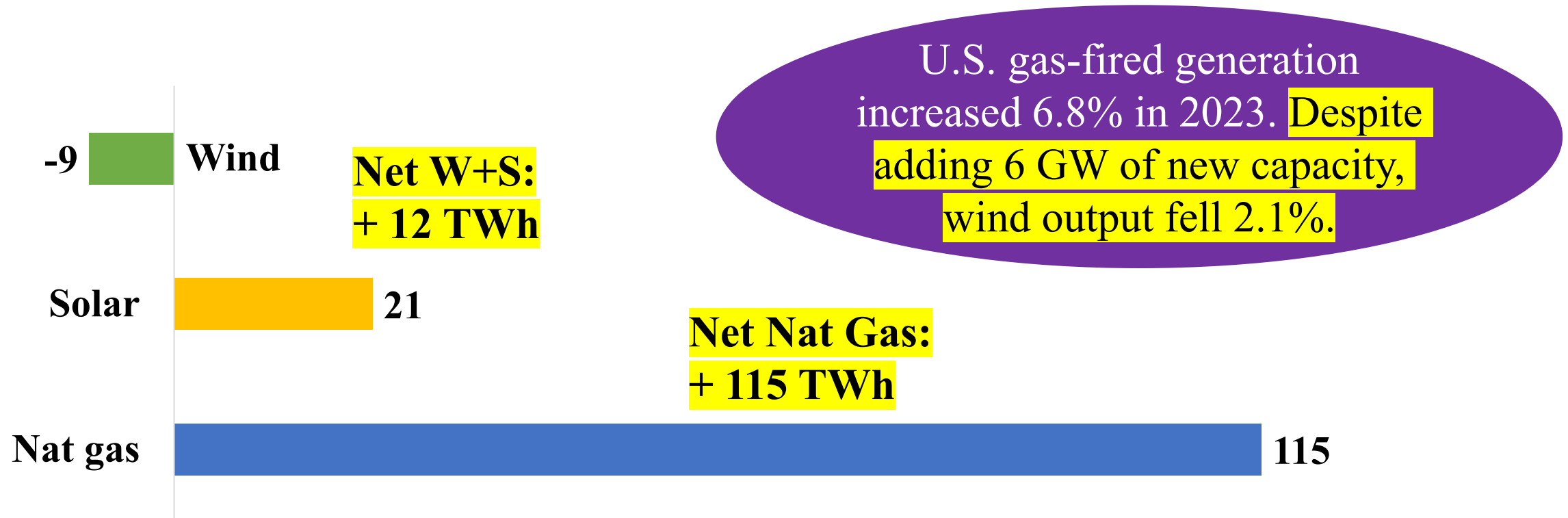


US vehicles in operation by type, 2024

What Energy Transition?

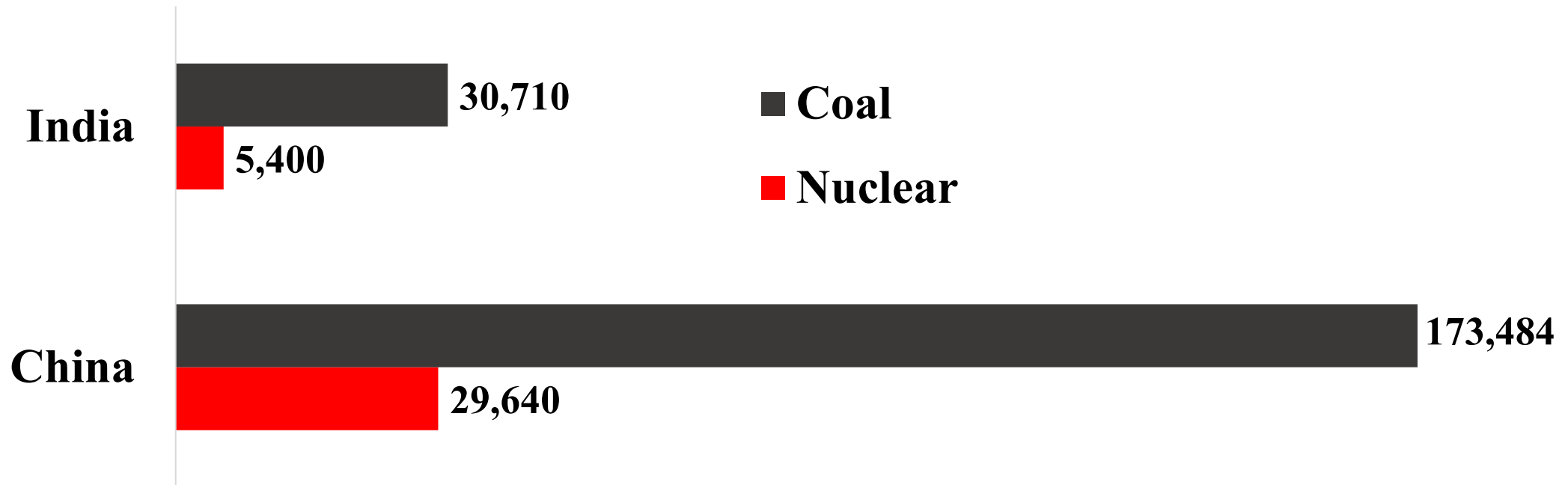
In 2023, US Gas-Fired Generation Grew

9.5x Faster Than W + S Combined



Change In Electricity Generation, 2022 to 2023, in TWh

>50% Of New Nuclear Capacity Is Being Built In China & India, **But Their Coal-Fired Capacity Is Growing >5x Faster**



Capacity under construction, in megawatts, July 2024

Sources: IAEA, <https://pris.iaea.org/pris/worldstatistics/underconstructionreactorsbycountry.aspx>

Global Energy Monitor, https://docs.google.com/spreadsheets/d/1_6AkrRZOn3ZXhSV9O6tZnX-m7aJsfG9HiQ_iEqBkbW8/edit?gid=1228809590#gid=1228809590

https://docs.google.com/spreadsheets/d/1sHBsK_Ez7C9XA4HKRQSVopO4ivGSLz65jxdG0GQXeVk/edit?gid=1236850196#gid=1236850196

“Electrify Everything” Is A War On Gas

**76 California communities
have banned natural gas**

**Washington state governor signs ‘natural
gas ban bill’ into law**

**Los Angeles joins movement to ban
new natural gas hookups to fight
climate change**

**Mayor Wu bans fossil fuels in
new City of Boston buildings
and major renovations**

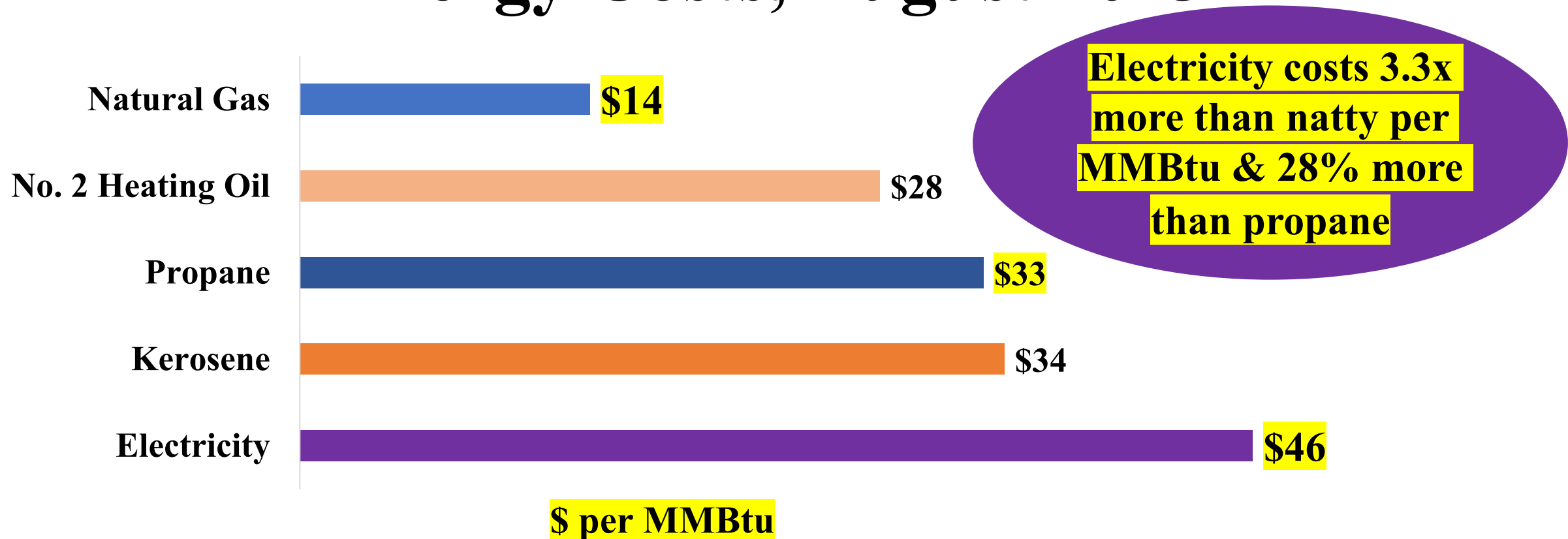
**Seattle bans natural gas in new
buildings**

**New York City Bans Natural
Gas – And Imposes A
Regressive Energy Tax On
Low-Income Residents**

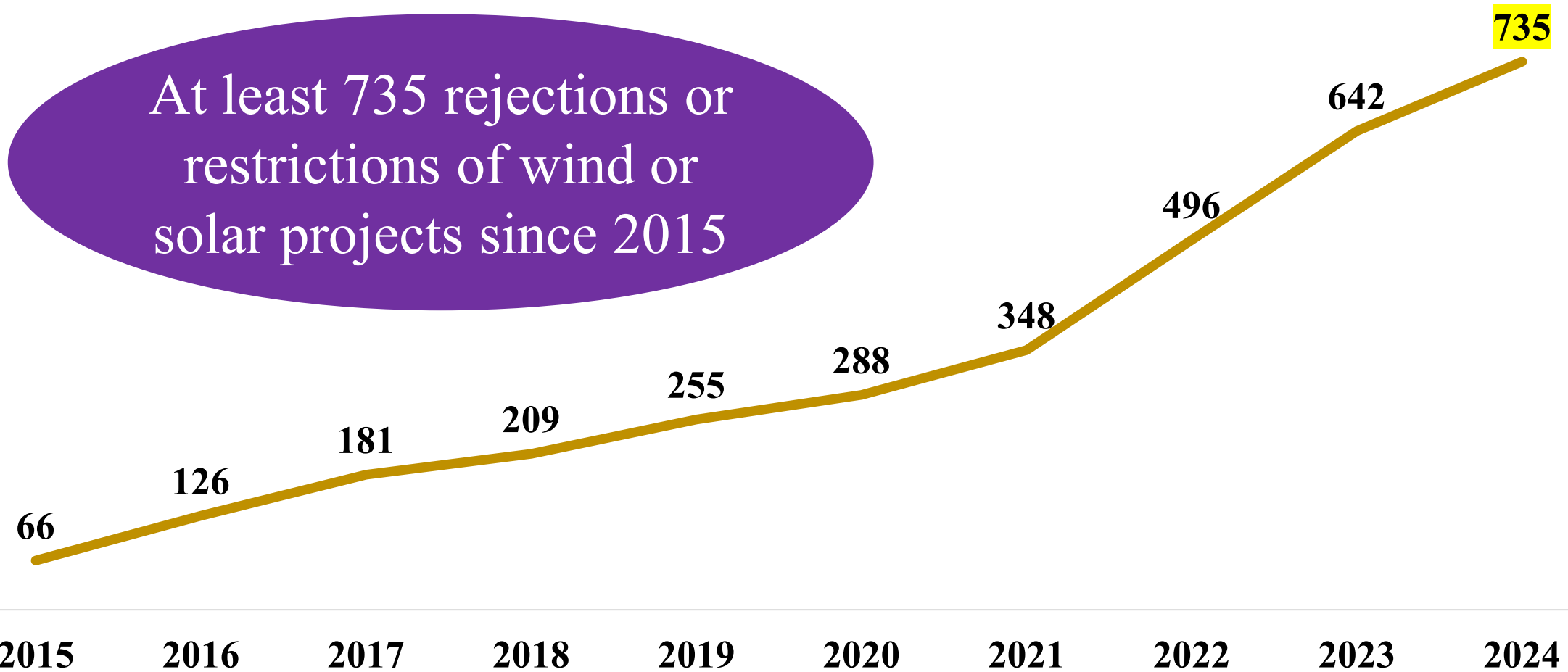
SF bans natural gas in new
city buildings, plans all
construction ban

Electrify Everything? Who Pays?

DOE: Energy Equivalent Residential Energy Costs, August 2023



Cumulative US Wind & Solar Rejections, 2015 To 2024

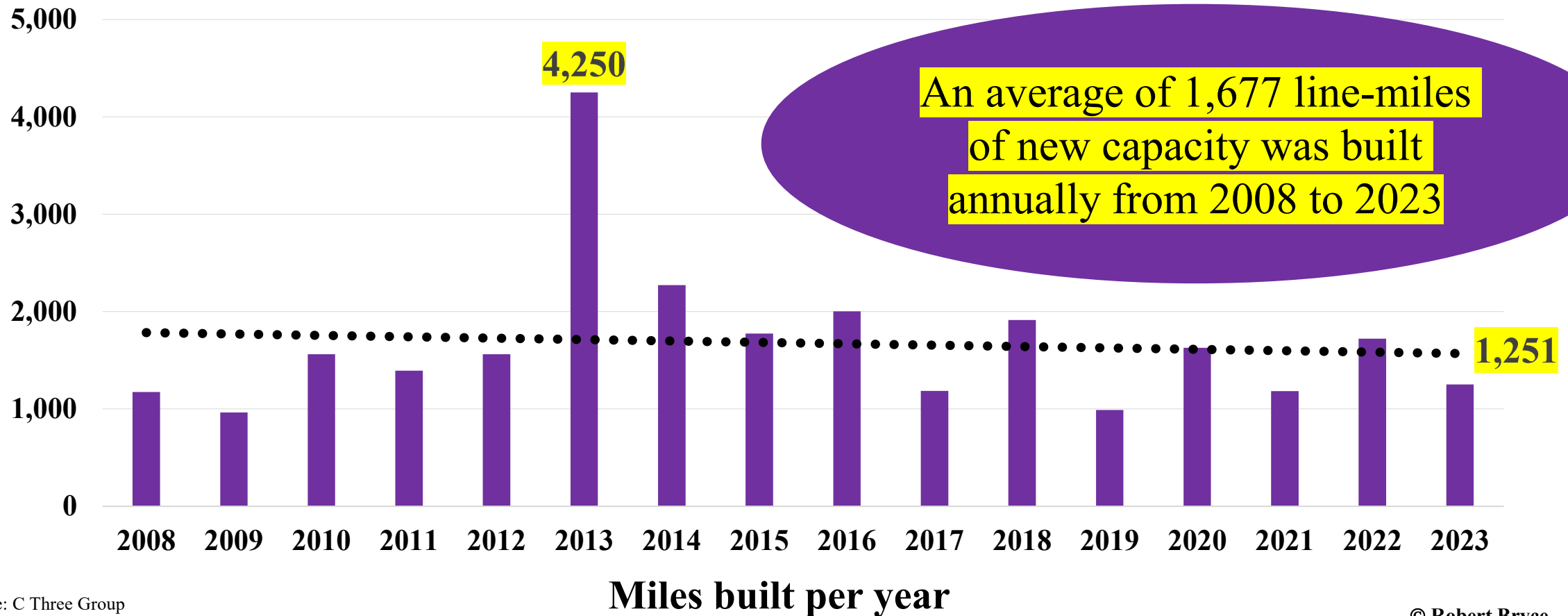


Grow The High-Voltage Transmission System By 57%? That'll Take 80 Years!



- In 2023, DOE said US needs **“57% growth” in HV transmission**
- US has 240,000 miles of HV transmission (230 kV and above)
- From 2008 to 2023, US built +/- 1,700 miles per year
- **At that rate, building 136,800 miles will take 80 years!**

The Amount Of HV Transmission (230kV & Above) Being Added To The Grid Is Flat Or Declining: Miles Built, 2008 to 2023



On May 9, 2024 EPA Published A GHG Rule Outlawing Coal-Fired Generation & New Baseload Gas W/Out CCS. 27 States, APPA, TVPPA, EEI, & NRECA Immediately Filed Lawsuits



39798 Federal Register / Vol. 89, No. 91 / Thursday, May 9, 2024 / Rules and Regulations

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2023-0072; FRL-8536-01-OAR]

RIN 2060-AV09

New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is finalizing multiple actions under section 111 of the Clean Air Act (CAA) addressing greenhouse gas (GHG) emissions from fossil fuel-

ADDRESSES: The EPA has established a docket for these actions under Docket ID No. EPA-HQ-OAR-2023-0072. All documents in the docket are listed on the <https://www.regulations.gov> website. Although listed, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through <https://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Lisa Thompson (she/her), Sector Policies and Programs Division (D243-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5158; and email address: thompson.lisa@epa.gov.

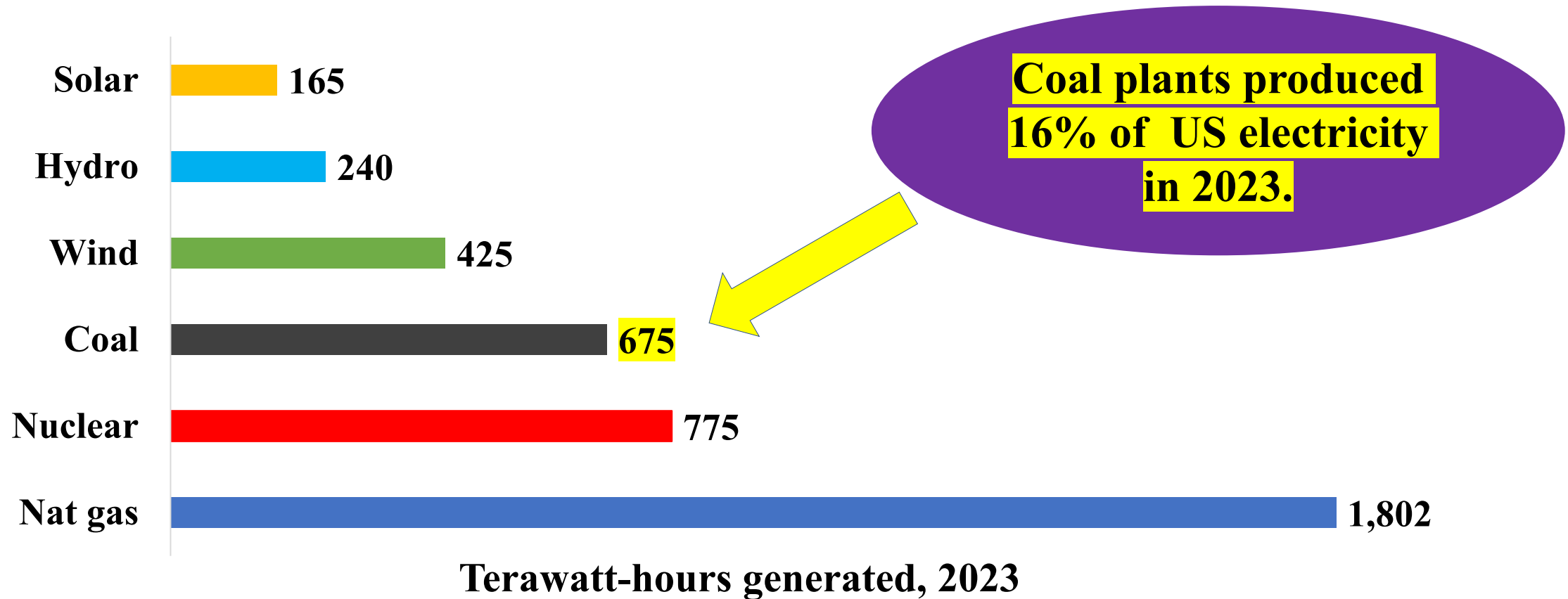
SUPPLEMENTARY INFORMATION:

- IRC Internal Revenue Code
- kg kilogram
- kWh kilowatt-hour
- LCOE leveled cost of electricity
- LNG liquefied natural gas
- MATS Mercury and Air Toxics Standards
- MMBtu/h million British thermal units per hour
- MMT CO₂e million metric tons of carbon dioxide equivalent
- MW megawatt
- MWh megawatt-hour
- NAAQS National Ambient Air Quality Standards
- NESHAP National Emission Standards for Hazardous Air Pollutants
- NGCC natural gas combined cycle
- NO_x nitrogen oxides
- NSPS new source performance standards
- NSR New Source Review
- PM particulate matter
- PM_{2.5} fine particulate matter
- RIA regulatory impact analysis
- TSD technical support document
- U.S. United States

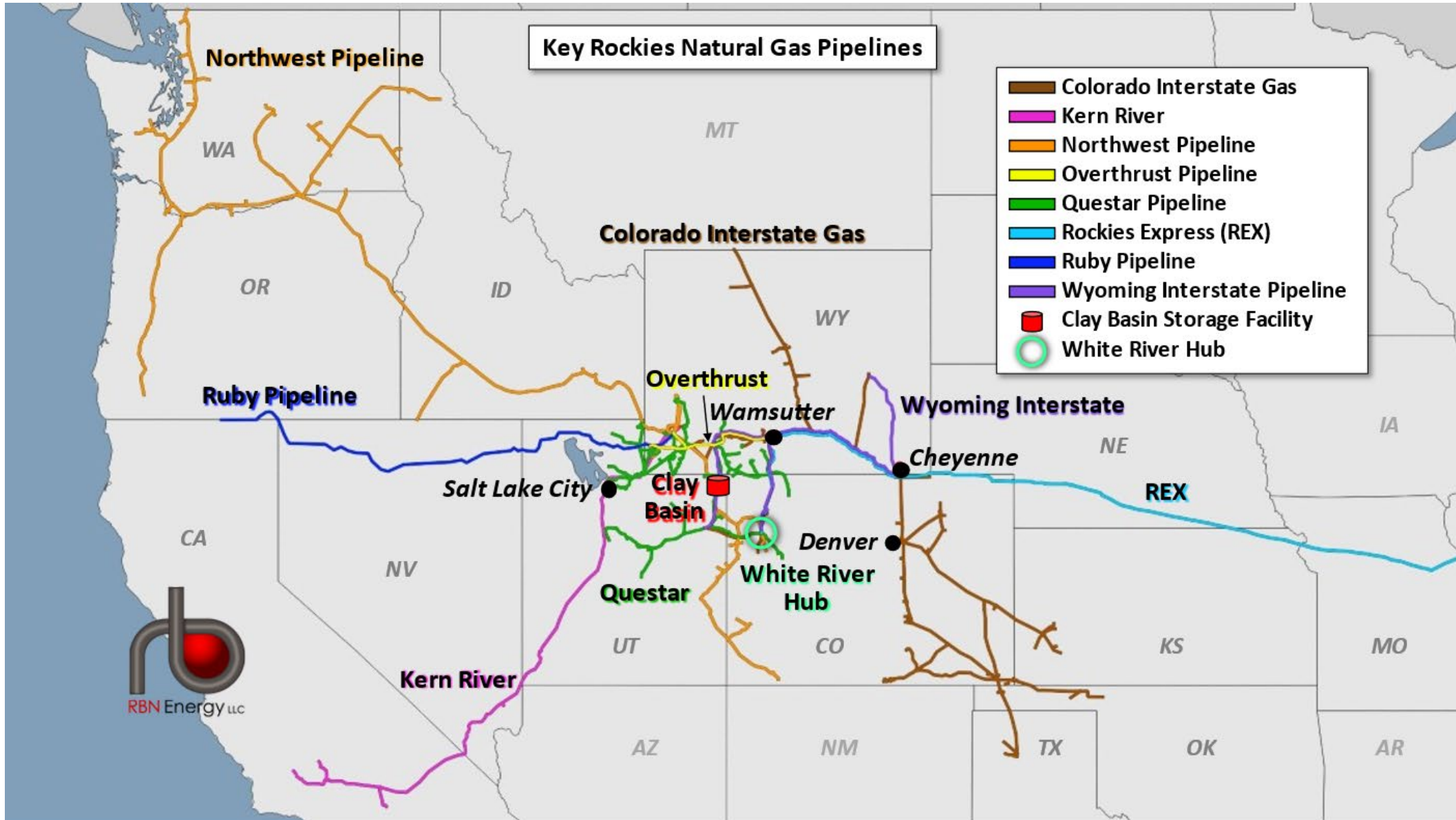
Organization of this document. The information in this preamble is organized as follows:

I. Executive Summary

The Rule Outlaws Coal-Fired Generation By 2032. That's 16% Of U.S. Generation

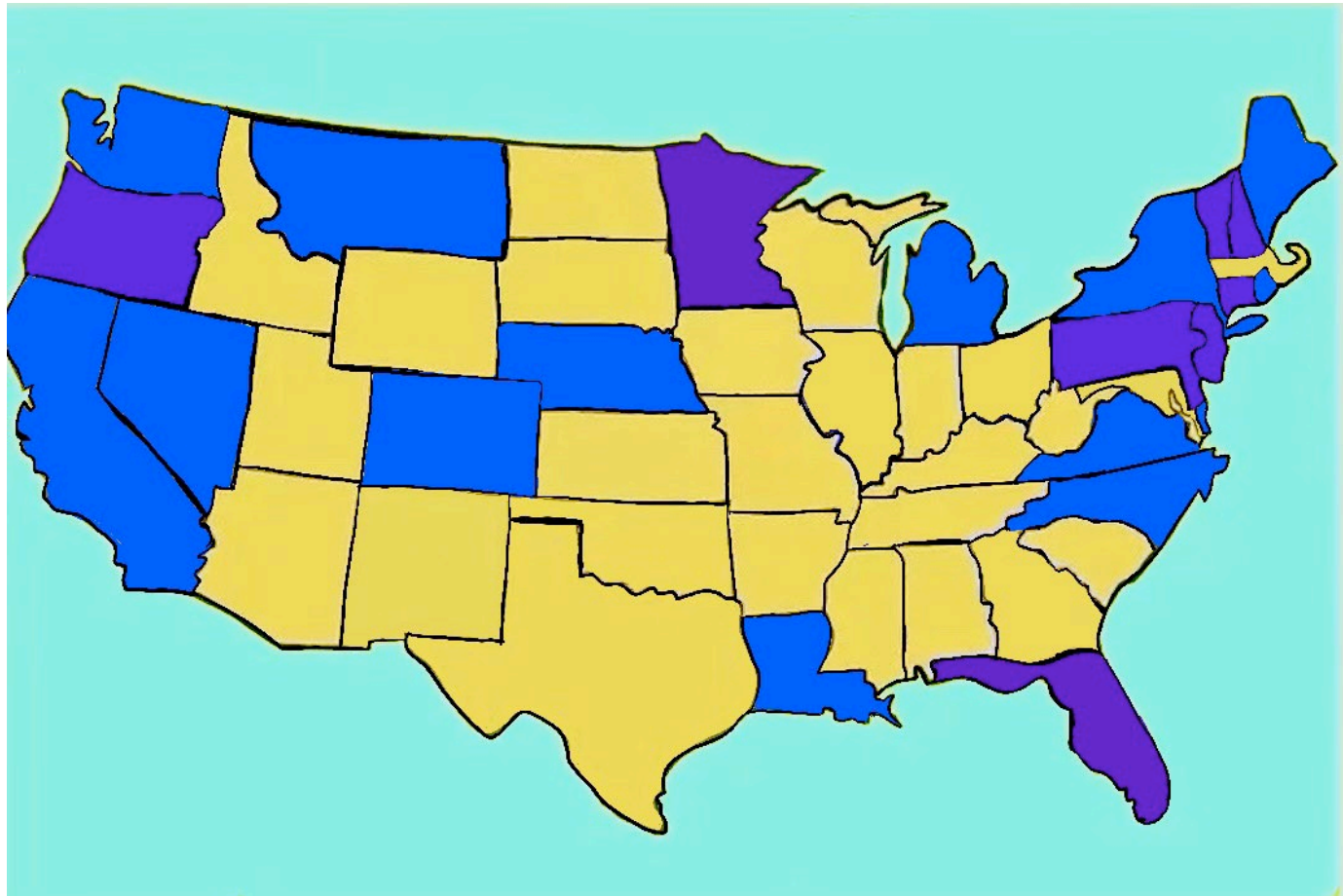


An Unbelievable Story – Xcel/CIG



It's Not Just The EPA!

21 States & 100 U.S. Cities Have Pledged Net Zero Or 80% GHG Cuts By 2050

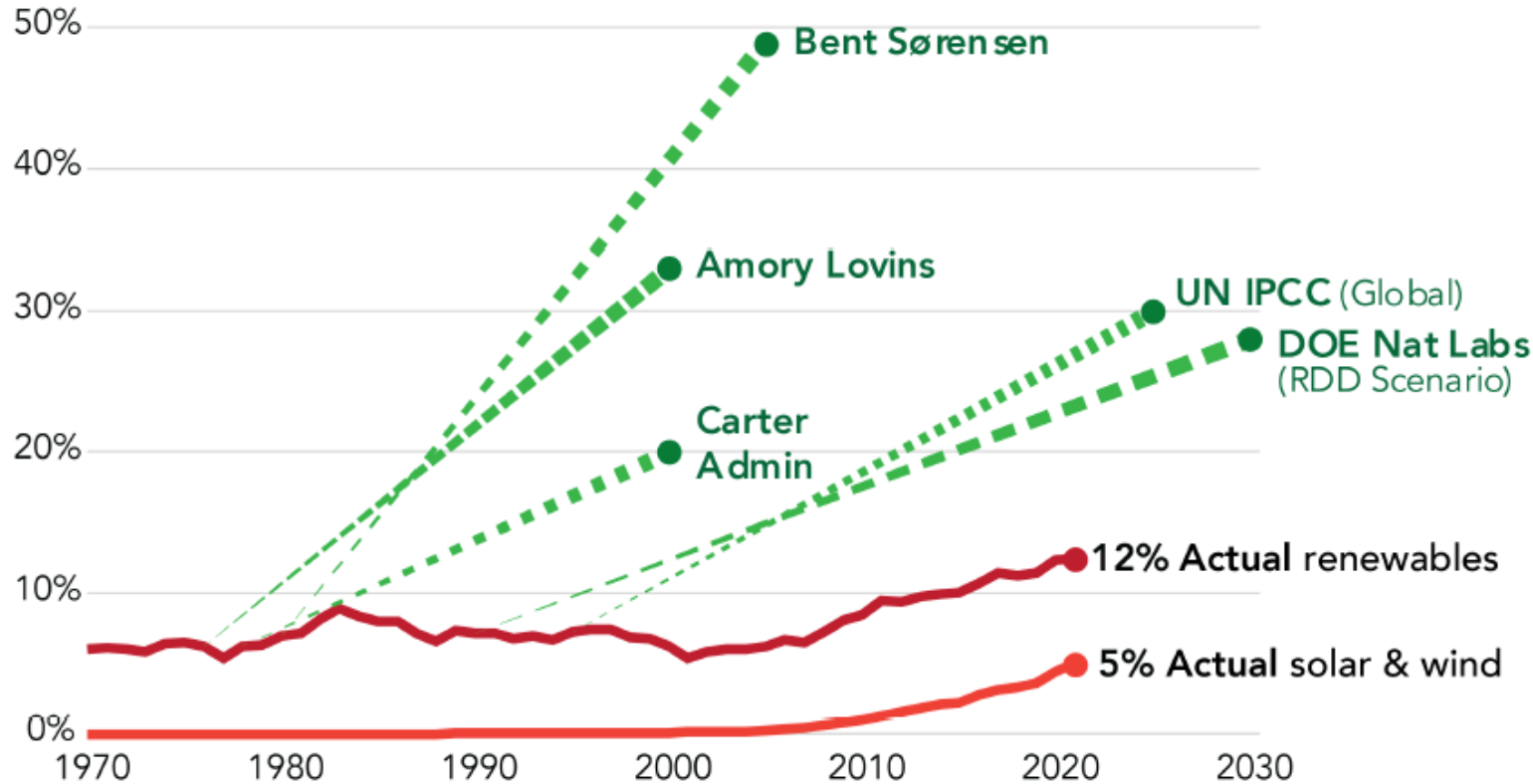


Blue = Net Zero

Purple = 80% cut

Ambition vs. Reality

Share of Renewables in U.S. Primary Energy Demand (1970-2021)



Sources: Vaclav Smil (original chart from *JPMorgan 2021 Annual Energy Paper*); Amory Lovins, "Energy Strategy: The Road Not Taken?" (1976); "President Jimmy Carter's Remarks at White House Solar Panel Dedication Ceremony, 1979"; DOE, *The Potential of Renewable Energy: An Interlaboratory White Paper* (1990); IPCC *Second Assessment: Climate Change* 1995.
 Note: Renewables include wind, solar, hydropower, geothermal, biomass.

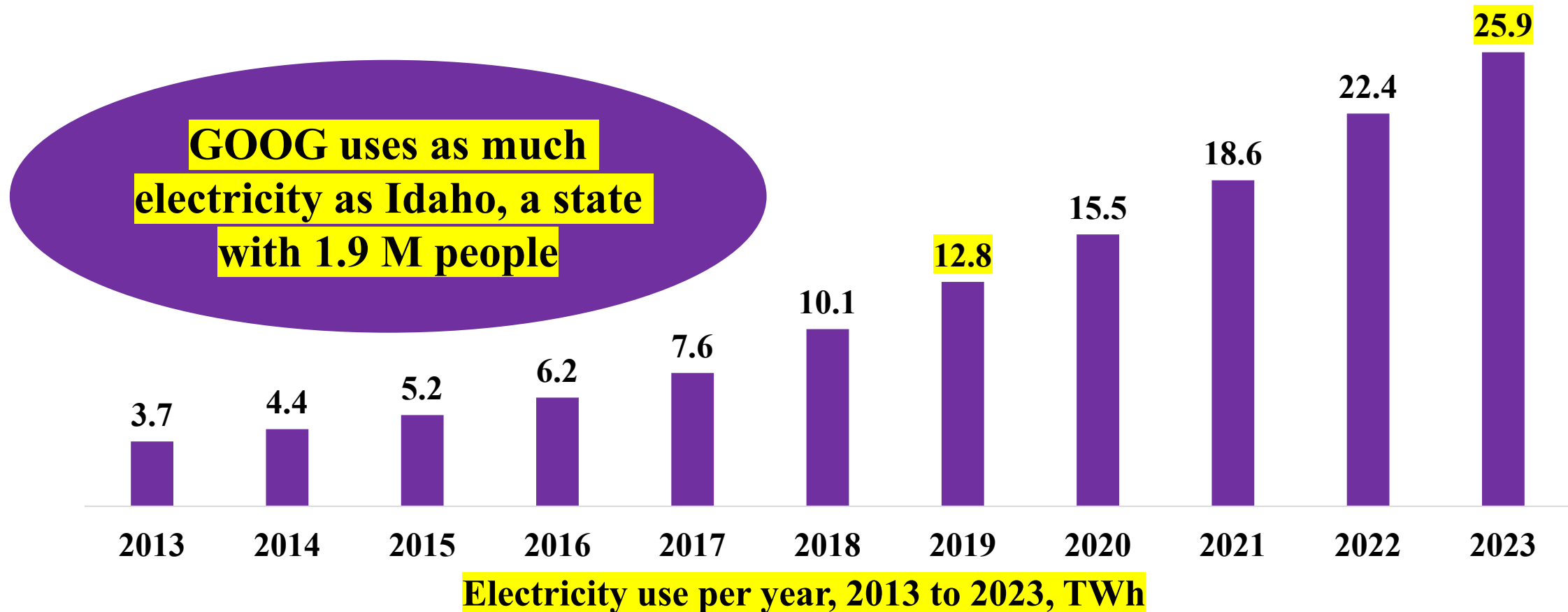


- In recent years, there has been a resurgence of "net zero" scenarios and government targets, with most of the future energy supply expected to come from solar and wind.
- History has taught us that ambition doesn't always match reality. There have been a number of ambitious scenarios and targets for renewable energy production in the U.S. over the past several decades.
- Many of these scenarios were unable to come to fruition, and many more are almost certain to fail in the future, as the share of renewables in the overall U.S. energy supply remains low (as of 2021, all renewables: 12% and solar & wind alone: 5%).

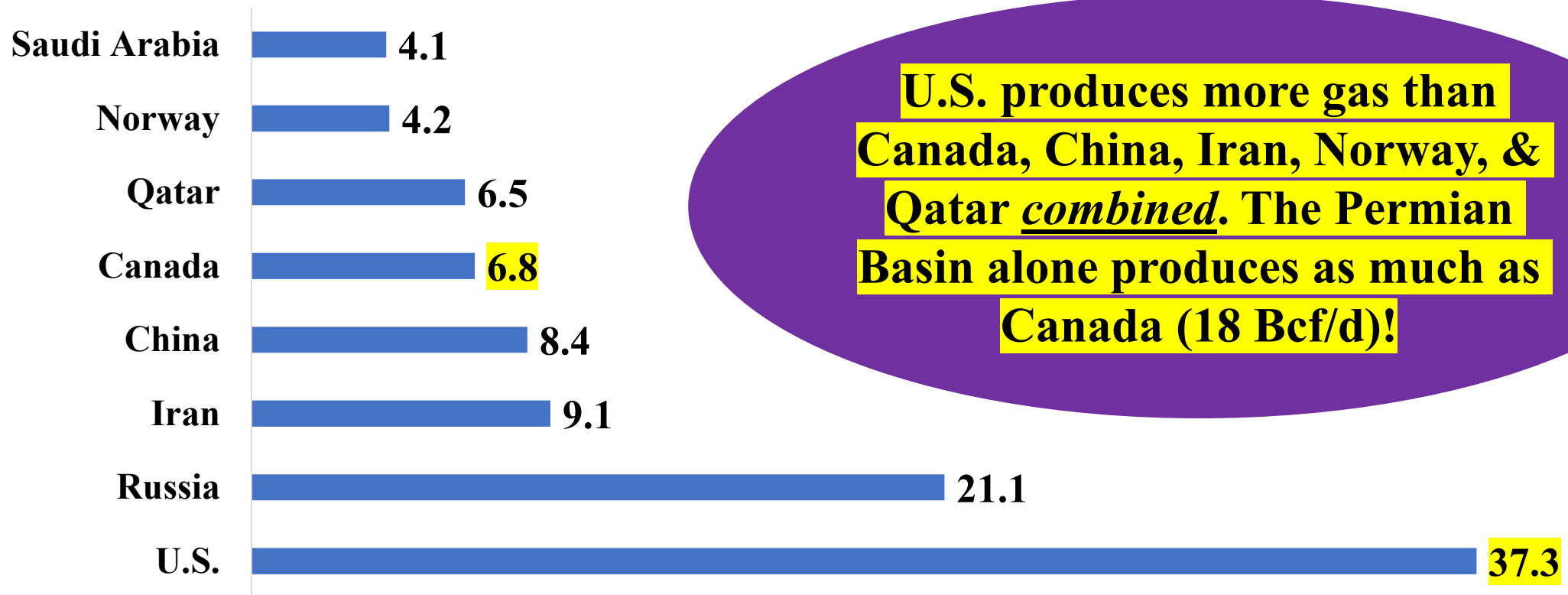
What About AI? How Much Power? How Much Gas?

- **Goldman Sachs: data centers will use 8% of US power by 2030, up from 3% in 2022, require \$50B in new gen capacity**
- **Kinder Morgan: power burn for AI will be 10 Bcf/d by 2030**
- **AMZN, MSFT, & ORCL betting on nuclear**
- **Morningstar: 16 Bcf/d by 2030**
- **J.P. Morgan: 6 Bcf/d for AI & 9 Bcf/d for LNG exports by 2030**
- **What about permitting? Skilled labor?**

Google's Electricity Use Has Doubled Since 2019, And It Will Continue Rising Due To AI



The US Is A Natural Gas Superpower



2023 gas production, in EJ

The US Shale Gas Revolution & Its Impact on Vladimir Putin & Gazprom

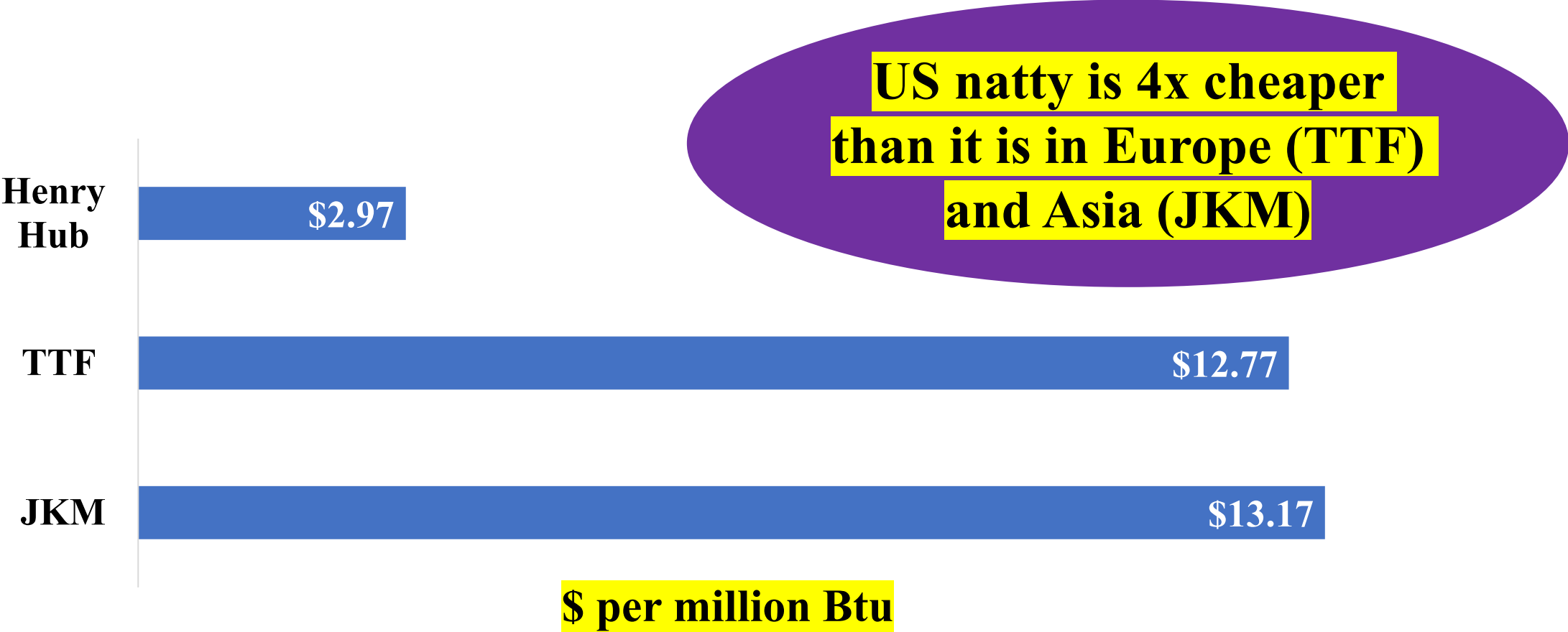
Presentation to:
Broe Companies
Branding Retreat

By:
John Harpole



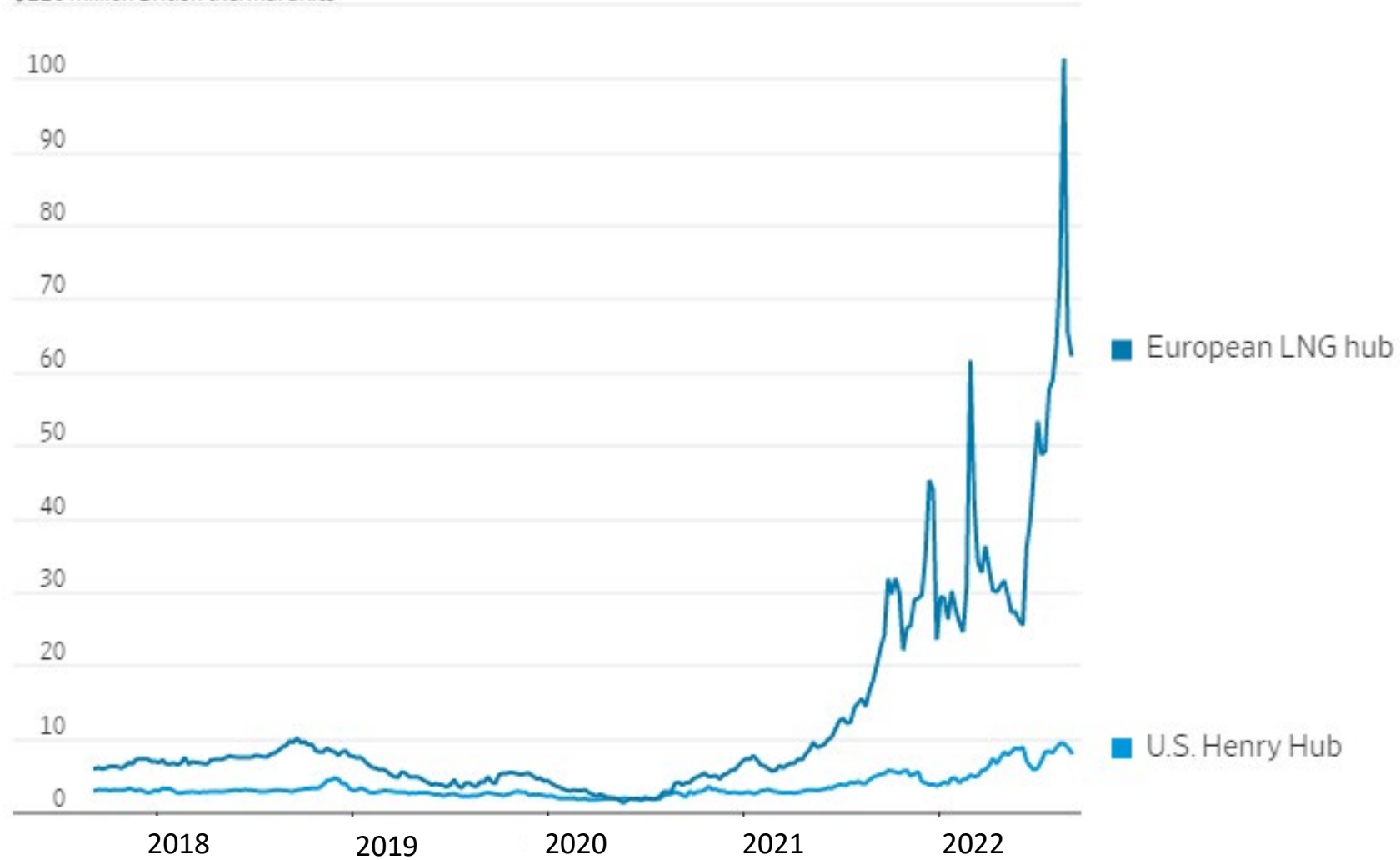
June 23-25, 2014

Nat Gas Prices: Henry Hub vs. JKM & TTF, Oct. 2, 2024



Natural gas price

\$110 million British thermal units



Source: FactSet

One-Year Forward Strip / \$ per MMBtu

NYMEX Henry Hub	\$ 7.725
LNG Delivered Price to Europe	\$97.993

One-Year Forward Strip

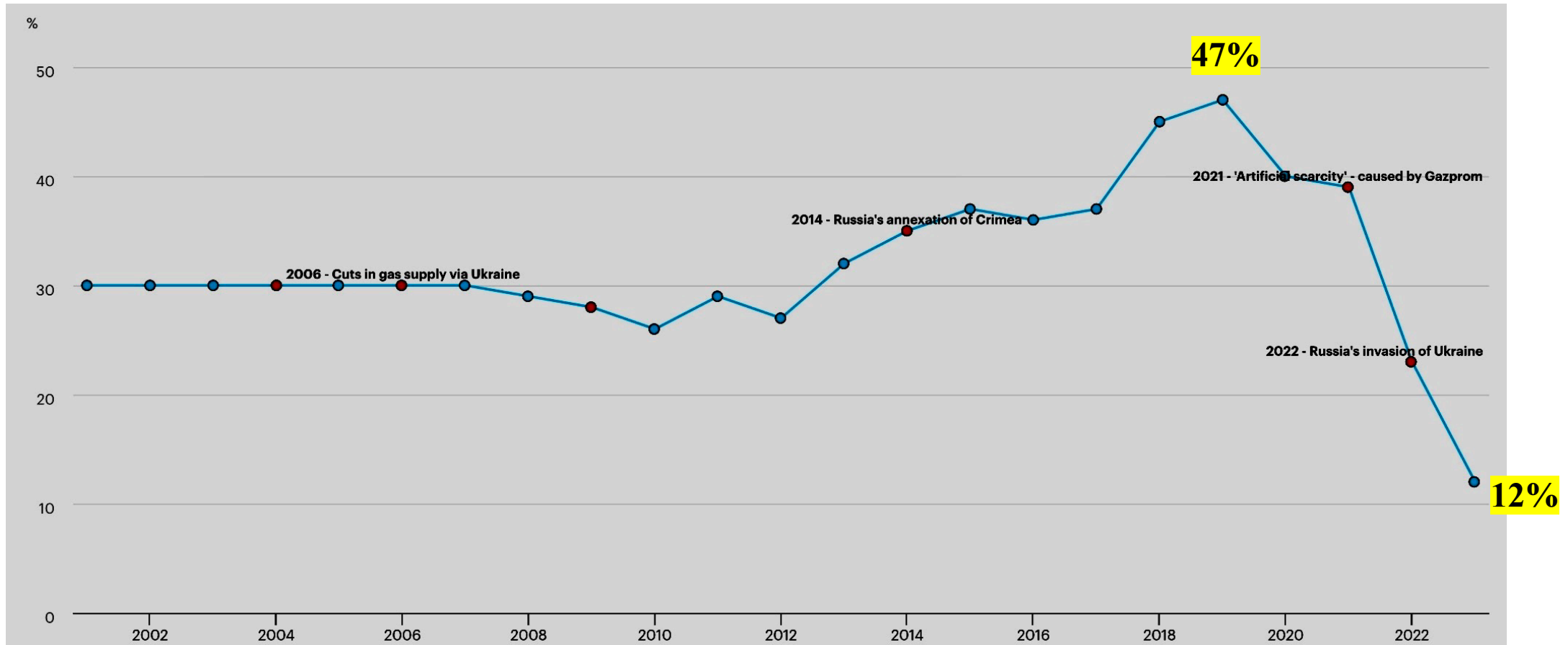
NYMEX Henry Hub	\$ 3.27
LNG Delivered Price to Asia	\$13.55
LNG Delivered Price to Europe	\$40.22

Three-Year Forward Strip

NYMEX Henry Hub	\$ 3.70
LNG Delivered Price to Asia	\$12.21
LNG Delivered Price to Europe	\$35.18

* Comparative Forward Natural Gas Price Strips, Settled price as of October 4, 2024, prices in \$/MMBtu

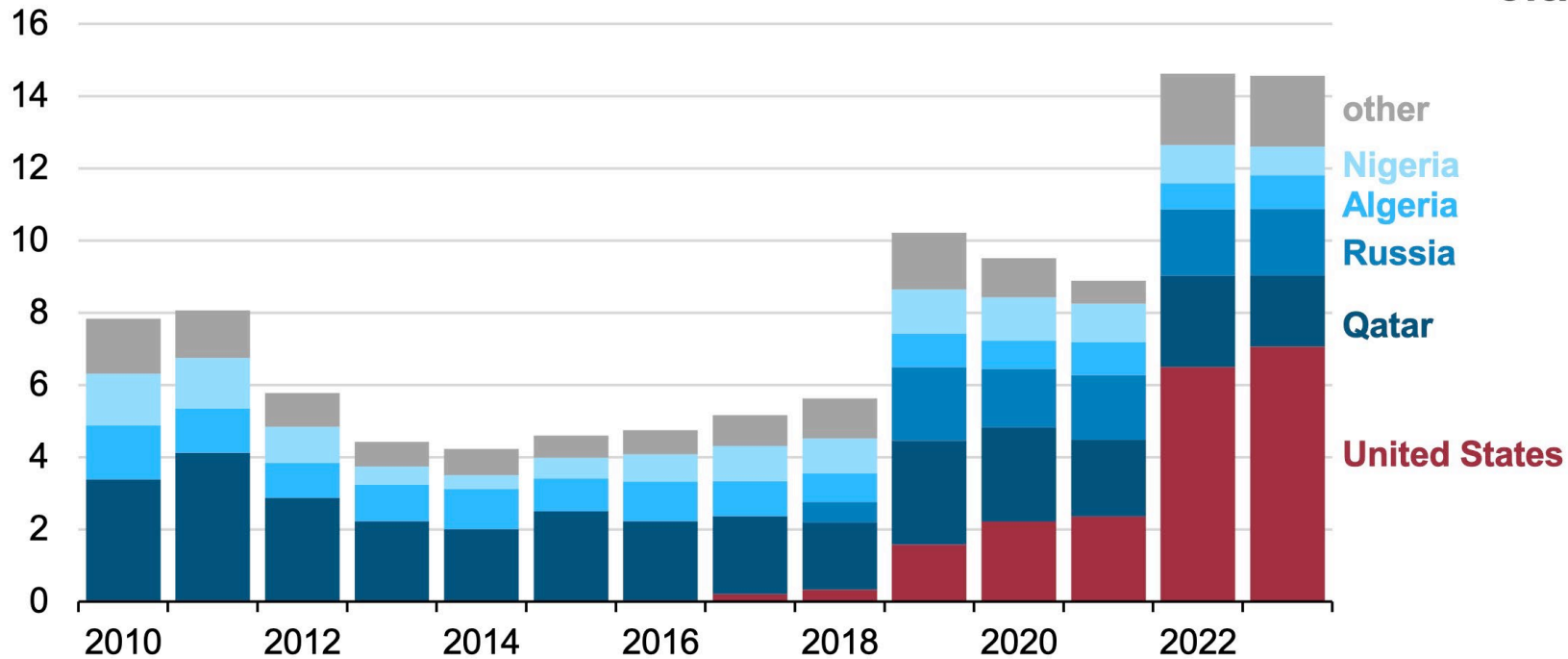
Europe's Natural Gas Disaster Provides A Stark Warning To The U.S.



Share of EU gas demand met by Russian supply, 2001 to 2023

US LNG Is Essential To Europe's Energy Security

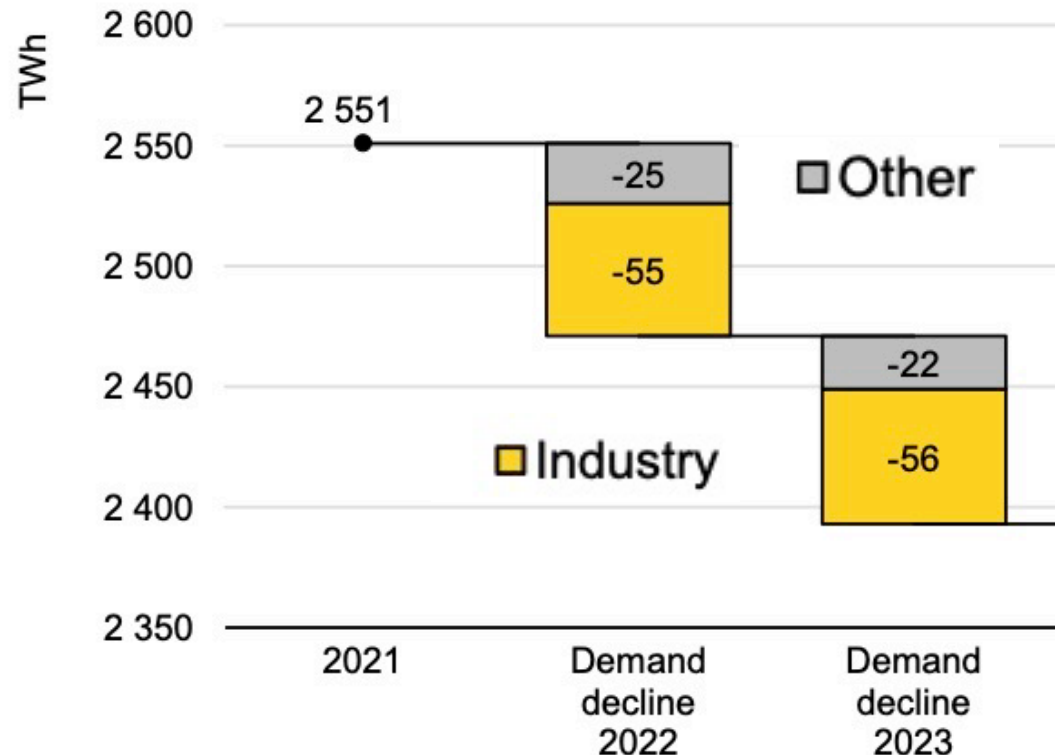
EIA: 2023 was “the third consecutive year in which the U.S. supplied more LNG to Europe than any other country.”



EU-27 & UK annual LNG imports by exporting country, 2010-23

Europe Is Deindustrializing

“Following a 5.8% decline in 2022, we estimate electricity consumption in the EU industrial sector fell 6% year-on-year in 2023.”



Electricity demand “has fallen to levels last seen two decades ago, predominantly due to lower consumption in the industrial sector...chemicals, steel, and aluminium are more exposed to increasing energy cost.”
— IEA, January 2024

Change in EU industrial electricity use, 2022 & 2023, in TWh

**Energy security is national
security**

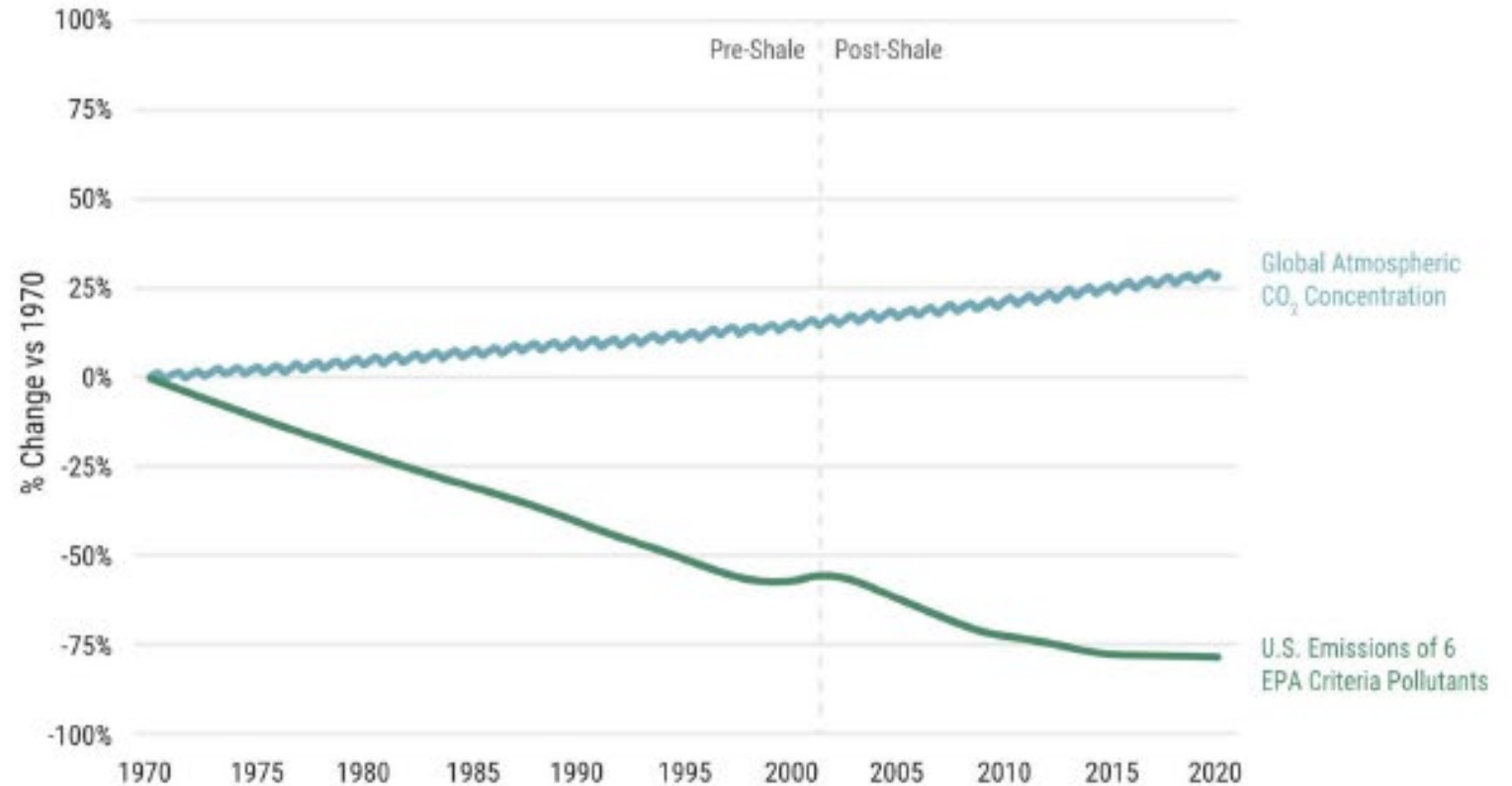
**Energy realism is energy
humanism**

CLIMATE CHANGE

Climate Change & Air Pollution

While global CO₂ concentration has been rising, U.S. air pollution has been on a steep decline.

Climate Change and Air Pollution % Change Since 1970



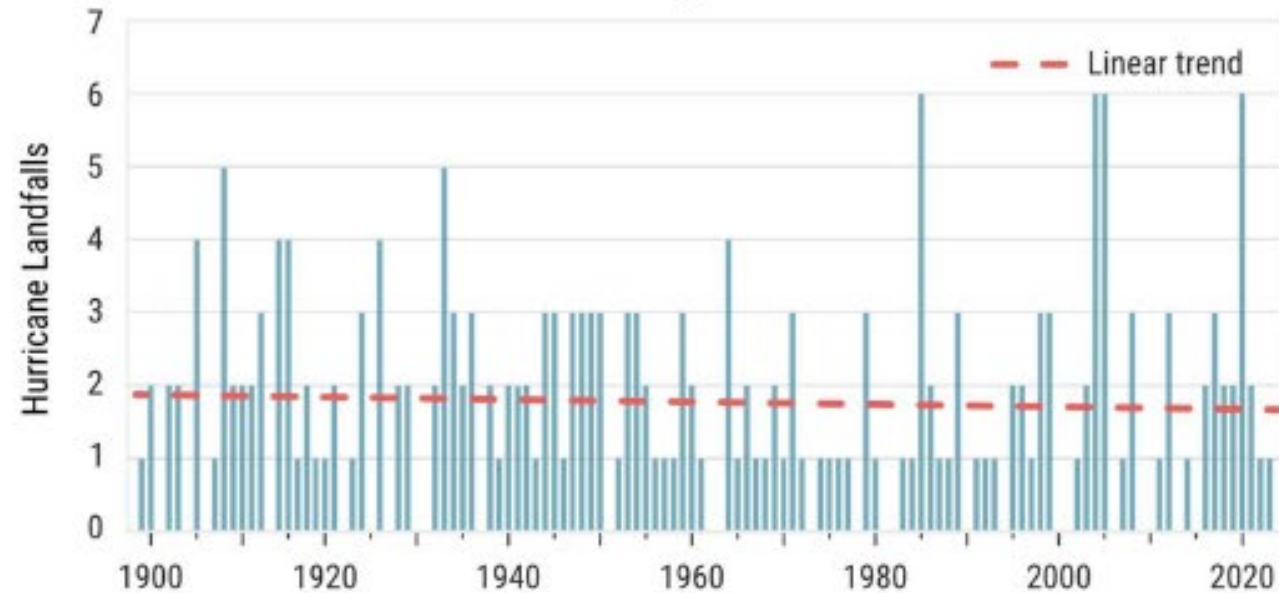
Source: Scripps Institution of Oceanography NOAA Earth System Research Laboratory, EPA, EIA & Bijou Insights

CLIMATE CHANGE

U.S. Hurricanes

Data shows large annual variability in hurricane activity but no obvious rising trend.

Figure 4.8
Continental U.S. Landfalling Hurricanes 1900–2023



Source: "US Hurricane Landfalls." Atlantic Oceanographic and Meteorological Laboratories. ; Jr., Roger Pielke. "U.S. Hurricane Overview 2023."





360 substations out of service

“What the IPCC Actually Says About
Extreme Weather,” Roger Pielke, Jr.

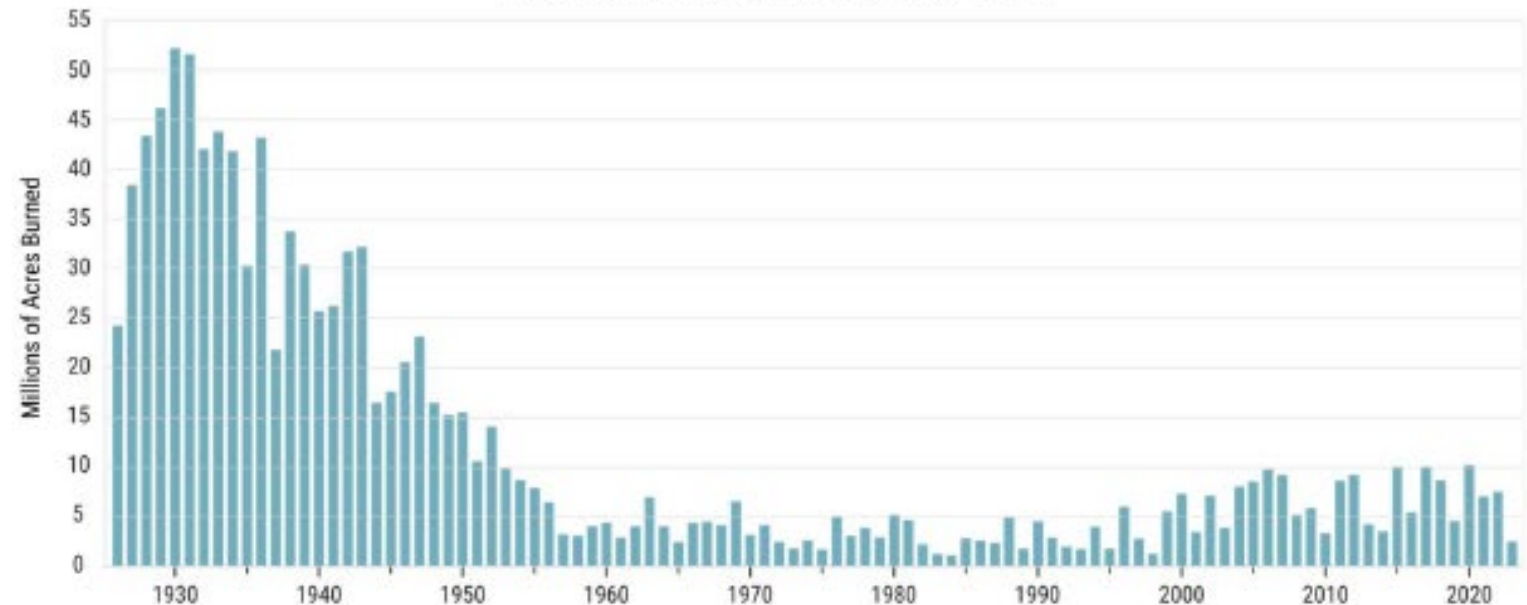
<https://rogerpielkejr.substack.com/p/what-the-ipcc-actually-says-about>

CLIMATE CHANGE

Wildfires & Forest Management

Forest Service scientists conclude that increased “live fuel” due to changing forest management practices was responsible for more than 50% of the recent increase in wildfires.

Figure 4.15
U.S. Wildfire Acres Burned 1926–2023



Source: National Interagency Fire Center, Roger Pielke, Jr.



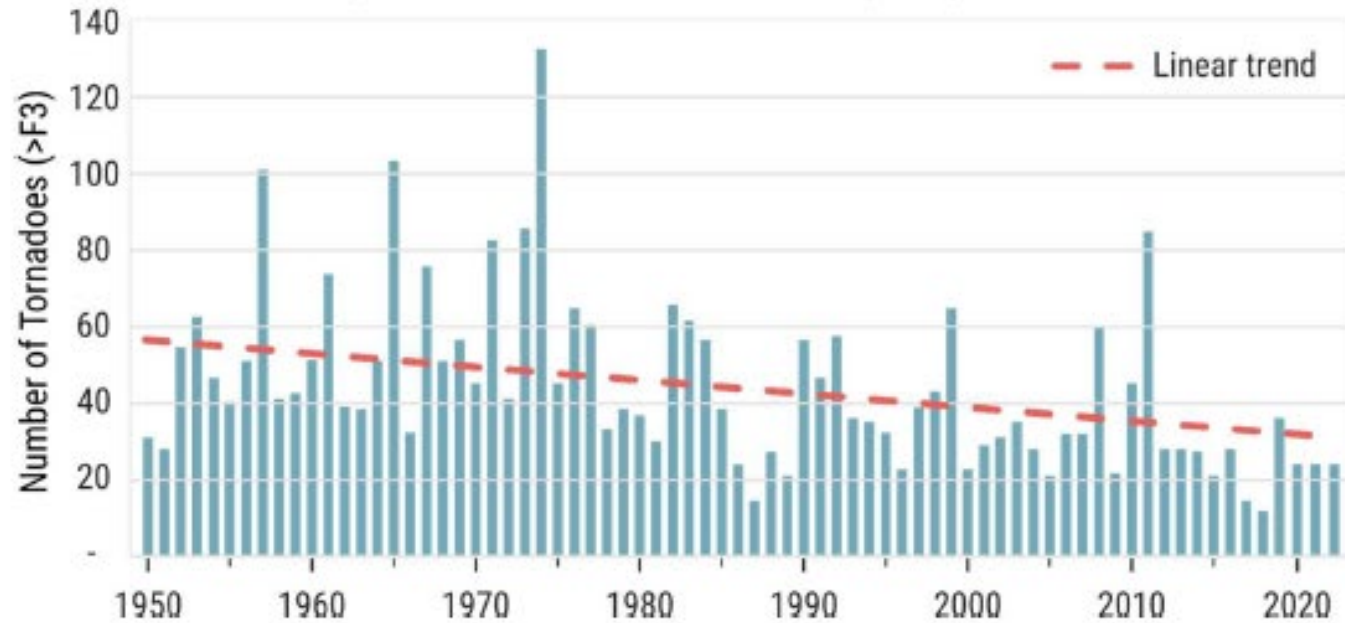
CLIMATE CHANGE

U.S. Tornadoes

The frequency of severe tornadoes in the United States since 1954 appears to trend downward.

Figure 4.9

U.S. Strong to Violent Tornadoes (>F3) 1950-2022



Source: "Storm Prediction Center WCM Page," Storm Prediction Center.

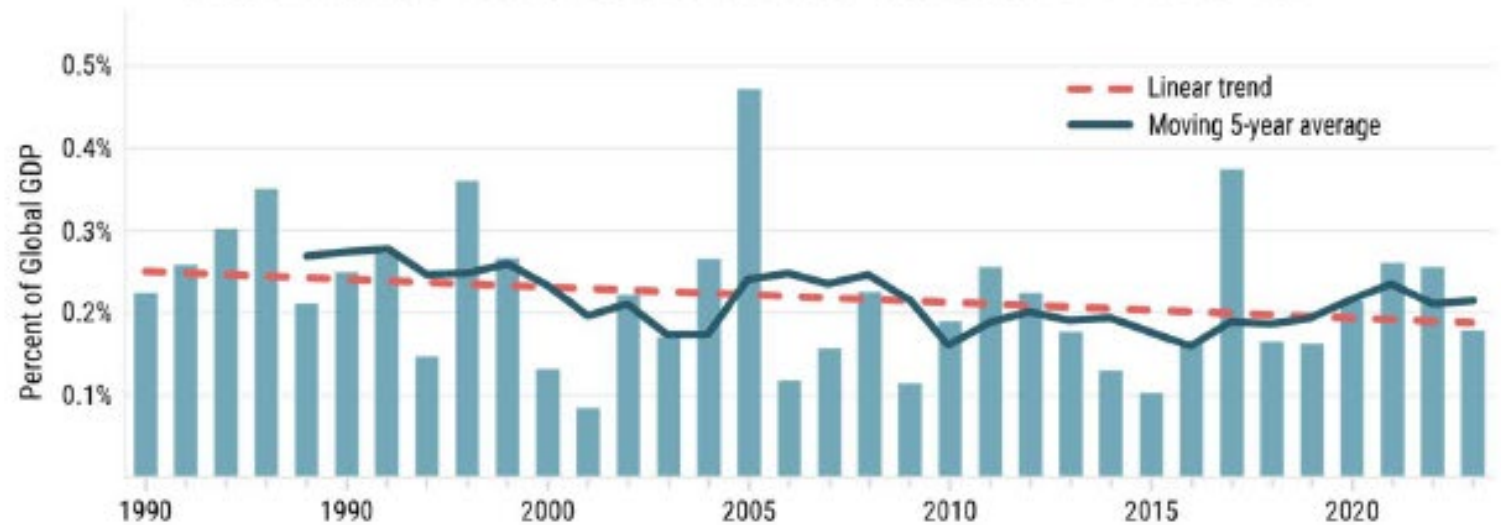


CLIMATE CHANGE

The Billion Dollar Storm Scam

Damages from extreme weather events as a percentage of global GDP have declined by roughly 20% over the last three decades.

Figure 4.14
Global Weather Disaster Losses as Percent of Global GDP 1990–2023



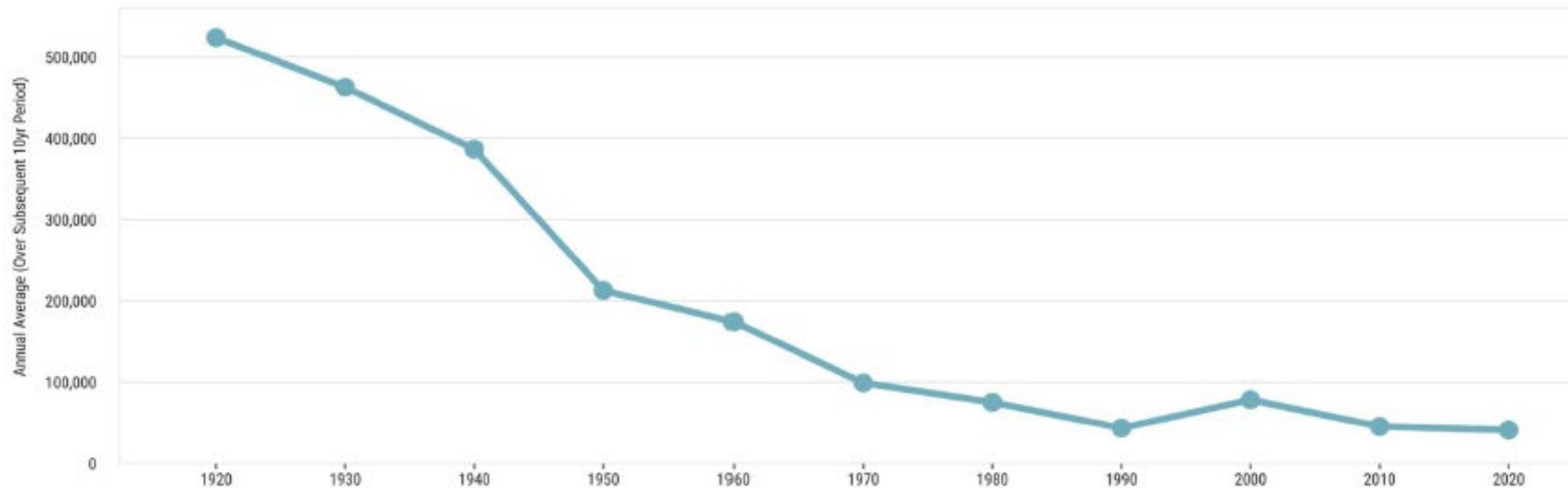
Source: Roger Pielke, Jr., Munch RE, 2023, NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2024).



World Has Become Dramatically Safer

CLIMATE CHANGE

Figure 4.16
Global Deaths from Severe Weather 1920–2020



Source: "EM-DAT: The International Disasters Database." EM-DAT, Centre for Research on the Epidemiology of Disasters (CRED). ; Lomborg, Bjorn. "Welfare In the 21st Century: Increasing Development, Reducing Inequality, the Impact of Climate Change, and the Cost of Climate Policies." Technological Forecasting and Social Change, North-Holland, 24 Apr. 2020.



Appeasement is dishonest and ineffective.
Honest, candid energy dialogue is sorely needed.

- There is no climate crisis.
- There is no energy transition.
- Net Zero 2050 is a Sinister Goal. Zero Energy Poverty 2050 is a Superior Goal.
- We will witness in our lifetimes a less reliable electric and gas pipeline grid thanks to “zero carbon pledges” and their conflict with reality.

Appeasement is dishonest and ineffective.
Honest, candid energy dialogue is sorely needed.

- City, State, and National GHG emissions targets export jobs and impoverish citizens without lowering Global GHG emissions.
- Wind & Solar subsidies have been disastrous to electricity grids and only supply 2.6% of total global energy after trillions of mal-investment.
- Electric vehicles are not “climate policies” or part of an “energy transition.”

Appeasement is dishonest and ineffective.
Honest, candid energy dialogue is sorely needed.

- Affordable, reliable, secure energy is foundational to successful societies.
- States with advantaged energy prices and secure electric grids will prosper in the years ahead – affordability, AI, re-shoring energy-intensive manufacturing, etc.

Daniel Yergin: "... this is a \$90 trillion world economy that gets 80% of its energy from hydrocarbons. It's not going to change overnight."

Doomberg: "In the 2000-year competition between political platitudes and physics, physics remains undefeated."

John Harpole

President

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RobertBryce.substack.com

Doomberg.substack.com

RogerPielkejr.substack.com

AlexEpstein.substack.com

“Energy and Civilization A History,” Vaclav Smil

“Bettering Human Lives,” Chris Wright, Liberty Energy

@Shellenberger

Unreportedstoryrsociety.com

Committeetounleashprosperity.com

Natural Gas Pinch Points

Berlin Gas Lift

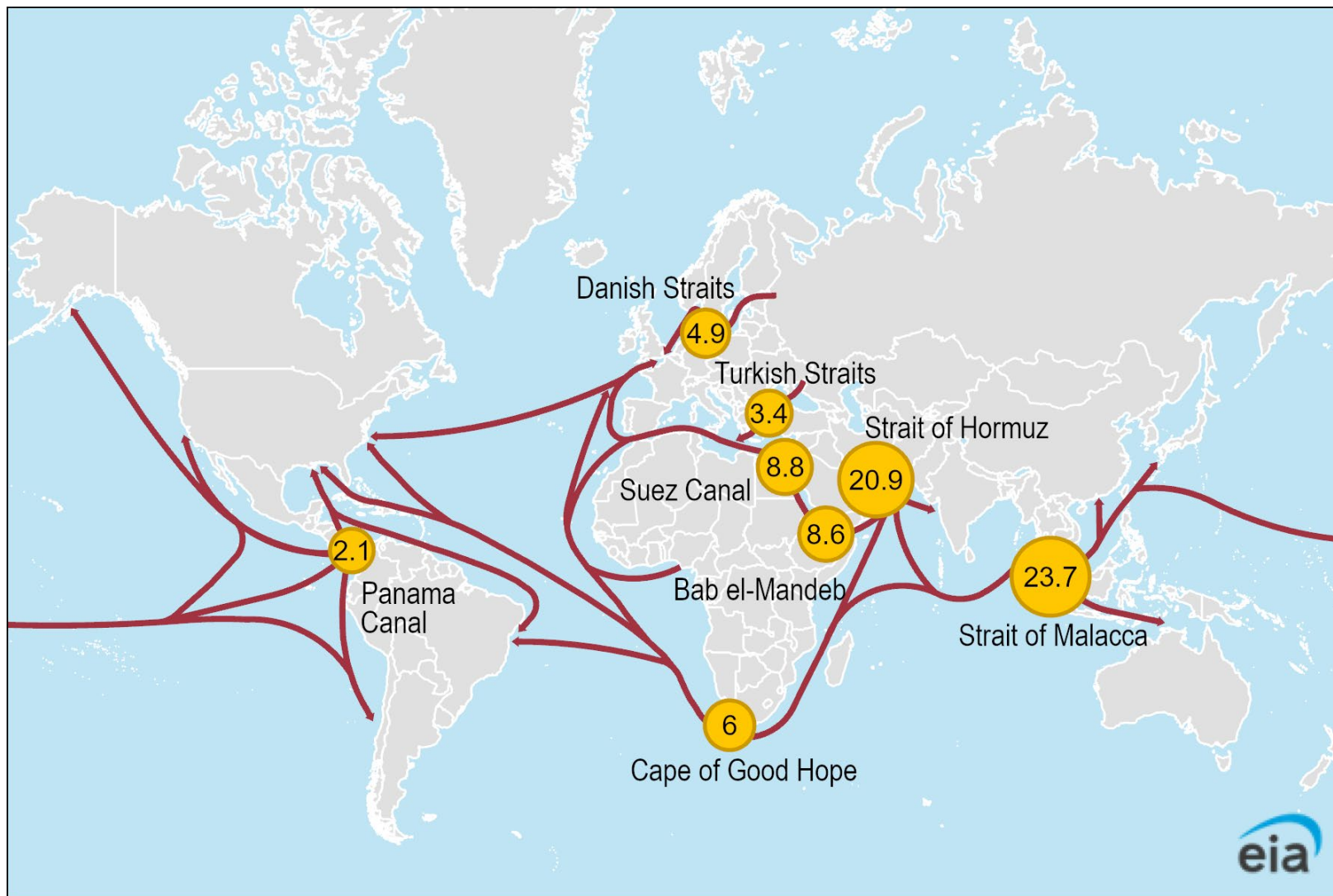


Pipeline Insurance Managers Conference (PLIMC)

November 15, 2023

Worldwide Chokepoints

Daily transit volumes of petroleum and other liquids through world maritime oil chokepoints (million barrels per day) (2023)



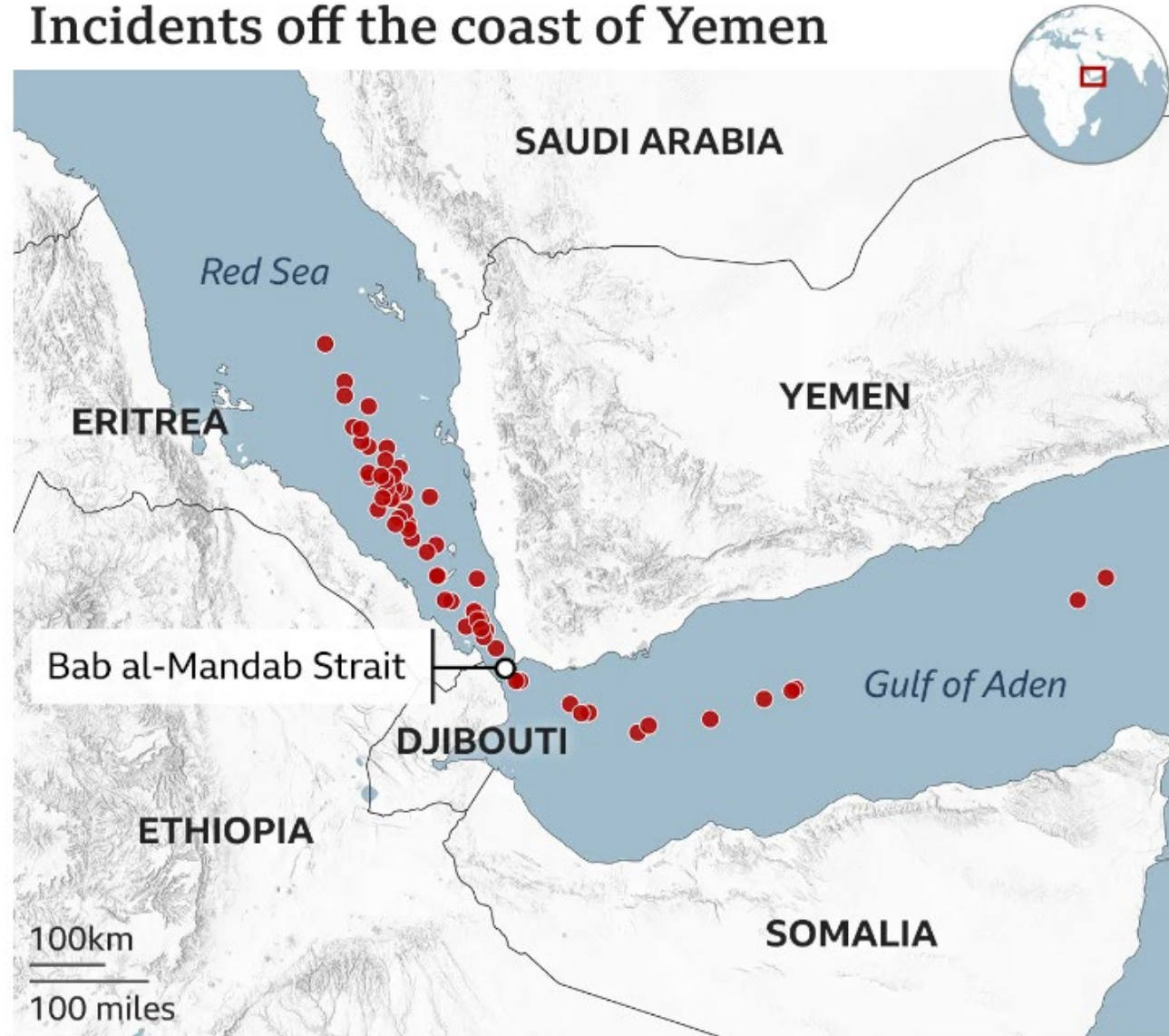
Source: "World Oil Transit chokepoints," EIA, June 25, 2024

- The Strait of Hormuz is a critical oil transit point that carries 20-30% of the world's daily oil consumption.
- Qatar and UAE are the only 2 Mideastern countries that use the Straits of Hormuz to transit their LNG.
- That represents 20% of the world's LNG market.
- 60% of that LNG flows to Asia or 18% of that goes specifically to China
- Qatar alone sends 100 LNG tankers per month through the Straits of Hormuz
- Qatar currently has 110 new LNG tankers on order at a cost of more than \$80 billion
- All of this while LNG efforts in the U.S. are “on pause for further study.”



Dramatic pictures show fire burning on tanker hit by brutal Houthi attack. Oil still onboard

Incidents off the coast of Yemen



Source: Ambrey Analytics



Source: "Tracking Houthi attacks in the Red Sea," BBC, January 19, 2024

“Sailing through Houthi Red Sea hotspot now is ‘insane’, says shipowner”

“Western governments powerless to stop Houthi attacks and end Red Sea crisis, insurers told”

“Oil spill from Houthi-hit tanker could land insurers with \$600m plus bill”

“Red Sea and Panama Canal disruptions cost economy \$1.25trn, says Russell Group”

Northern Sea Route



“New record shaping up for 2024 Northern Sea Route transits”

“Russia and China strike fresh deal to drive year-round container shipping through the Arctic”

“Northern Sea Route crossings dominated by crude oil cargoes last year”

“Russia sends elderly non-ice-class LNG carried through Arctic”

“Blacklisted oil tanker charts Kremlin's Arctic path to China”

“... the KSE Institute, found that 307 shadow tankers had carried Russian crude oil in at least one of the six quarters between January 2023 and June 2024.”

“Shadow fleet ‘tops 700 ships’ as sanctions squeeze out Western players (8% of active global fleet)”

“Russian has circumvented all sanctions with a shadow fleet of vessels whose ownership is organized to obscure links to Moscow.”

