



**U.S. focus:  
Energy from an economic, geopolitical  
and climate perspective**

Ladislav Paszkiewicz – TPA webinar Feb 4, 2026

# Why focusing on the U.S. when talking Energy and Climate?

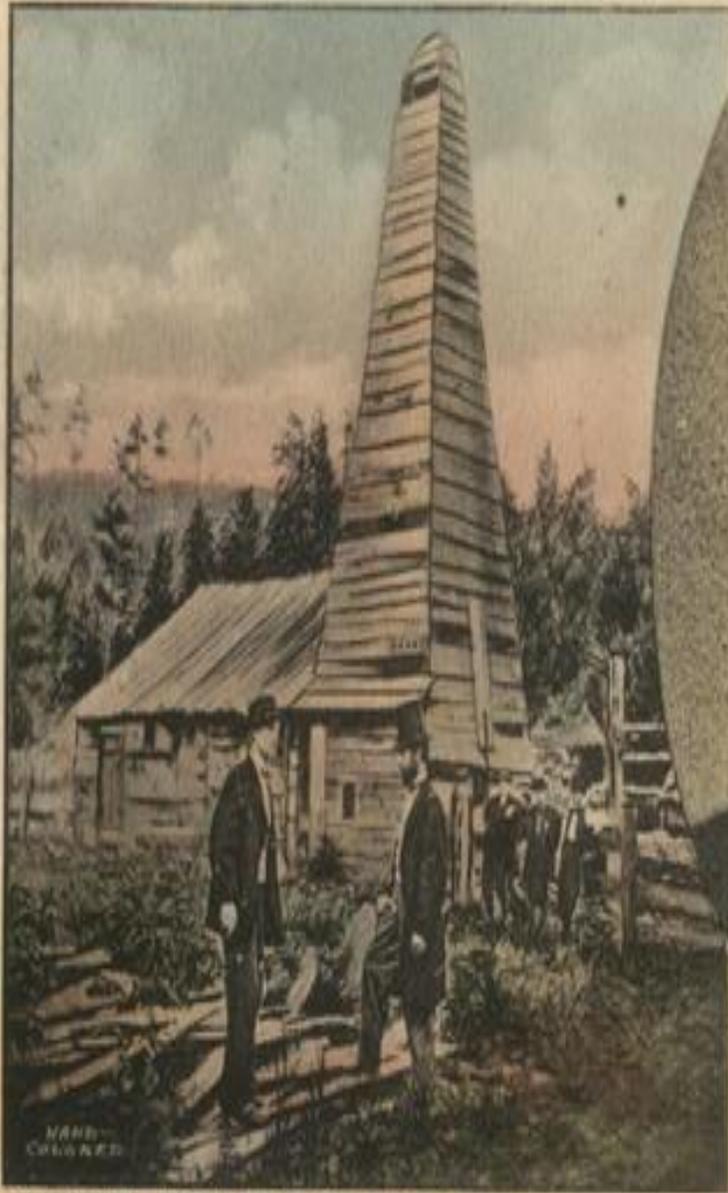
- As the largest economy in the world, the U.S. leads the way and has a global impact
- As the first oil, natural gas and nuclear power producer WW, the U.S. has a specific impact on global energy trade and balance
- Energy and geopolitics are increasingly intertwined today with recent U.S. actions
- As Climate is a global issue at the heart of all current debates, the U.S.'s position is crucial for the planet future



# Summary

1. Historical context
2. Economics is paramount for domestic growth – Affordable energy plays a key role
3. Geopolitics is key for global influence - Energy is at the heart of it
4. Environment & Climate priorities perceived differently among political leaders
5. Takeaways /Outlook





ORIGINAL DRAKE WELL IN 1861. TITUSVILLE, PA.



COLONEL DRAKE

CardCow.com

# TPA

Sharing Experience

**History (often) helps  
explaining current situations**

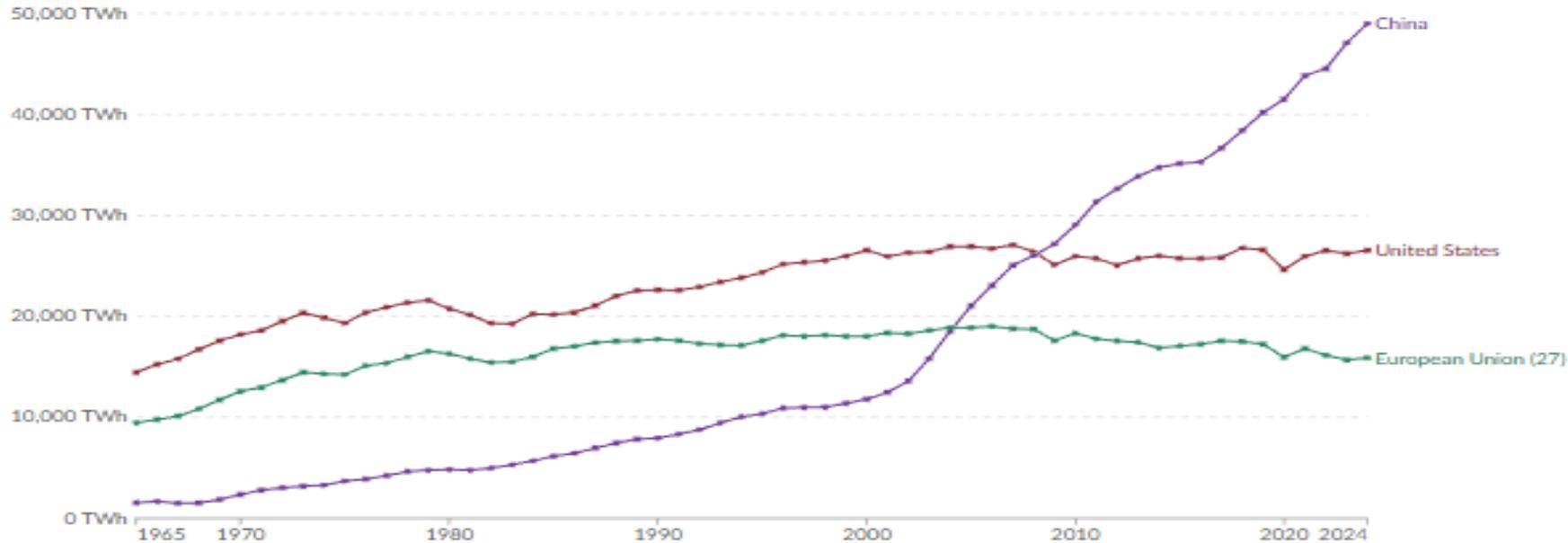
# The U.S. has always been a very large energy consumer

## Primary energy consumption

Primary energy consumption is measured in terawatt-hours, using the substitution method.

Our World in Data

Table Map Line Bar



1965-2024

China : 100 (base)

E.U. : 101

U.S. : 142

Play time-lapse

1965

2024

Data source: U.S. Energy Information Administration (2025); Energy Institute - Statistical Review of World Energy (2025) - [Learn more about this data](#)

Note: Data includes only commercially-traded fuels (coal, oil, gas), nuclear and modern renewables. It does not include traditional biomass.

OurWorldinData.org/energy | CC BY



U.S. stable from 2008, EU slightly decreasing from 2007, China still on the rise

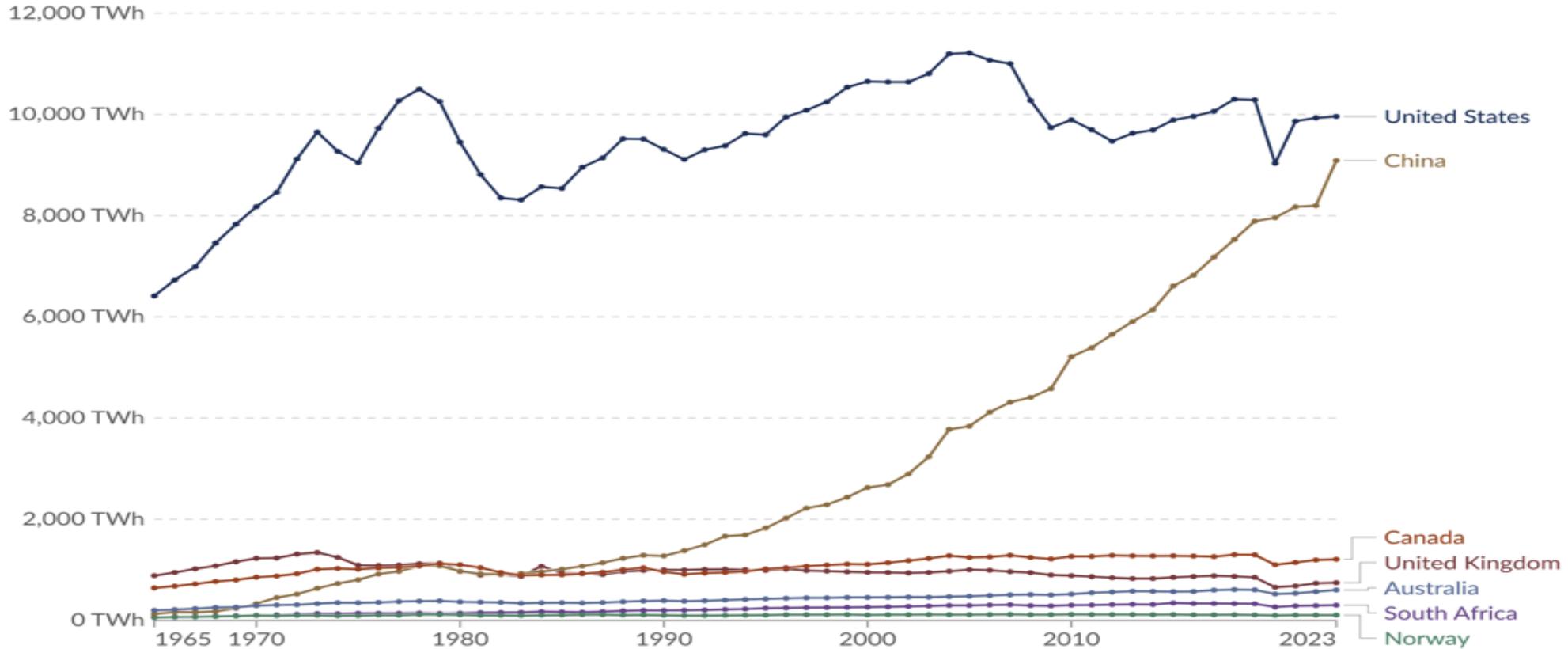


# Oil is the cornerstone of U.S. industrial development

## Oil consumption

Oil consumption is measured in terawatt-hours (TWh).

Our World  
in Data



Data source: Energy Institute - Statistical Review of World Energy (2024)

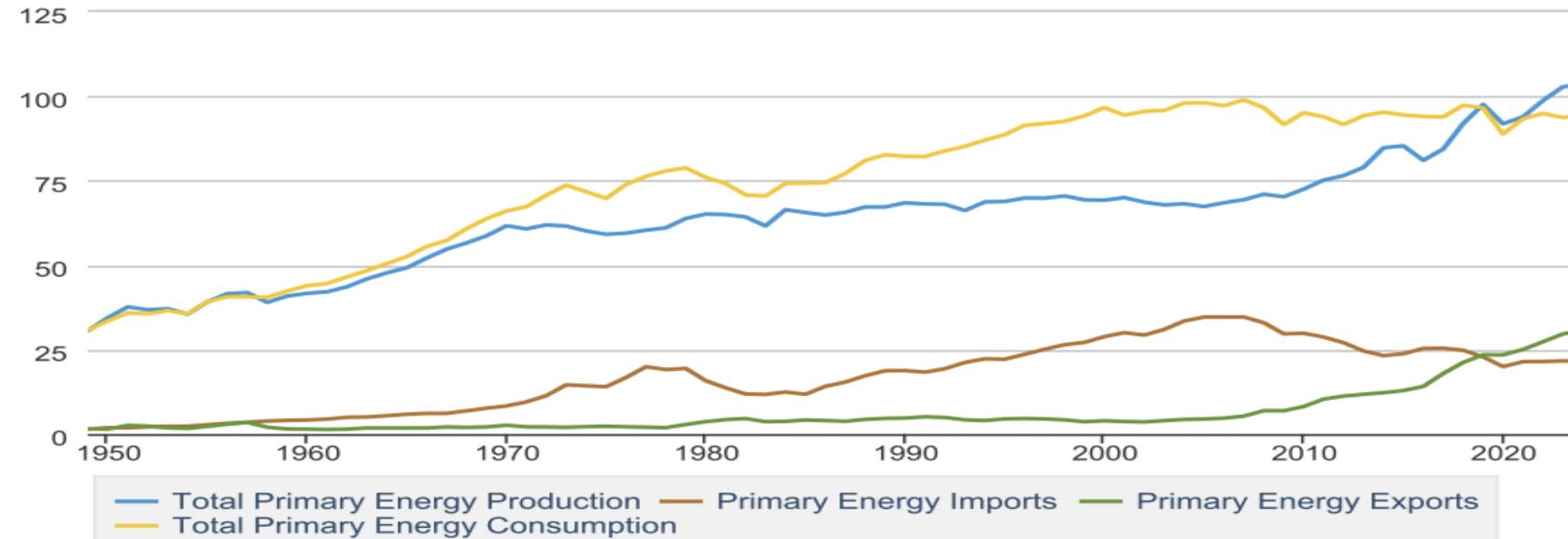
OurWorldinData.org/fossil-fuels | CC BY



# The U.S. has not always benefitted from cheap and abundant energy

**Table 1.1 Primary Energy Overview**

Quadrillion Btu



Balanced until mid 1950's

Deficit mid 1950's until mid 2010's

Surplus since mid 2010's



Data source: U.S. Energy Information Administration

Periods of deficit develop consciousness of weakness  
Periods of surplus develop consciousness of strength



# 1860-1960 – 100 years of energy abundance enabling industrial supremacy

- **Oil & Gas « The Gilded age »**

- Standard Oil – inc. 1870 – 90% U.S. oil production – dismantled 1911 → Exxon, Mobil, Chevron, Amoco, Conoco....(34)
- Unocal (1889), ARCO (1890), Texaco (1901)

- **Chemicals**

- SO, Dow (1897), Union Carbide, Philipps (1917) DuPont, ...

- **Military**

- U.S. Navy fueled by oil vs coal from 1900-1910
- Military mechanization (1917-1945) – trucks, armored vehicles, aviation, logistics
- Strategic dominance WW2 (« Gas station of the allies ») The U.S. produce 60% of global oil supply

- **Automotive**

- Ford 1903 Model T (1908), GM (1908), Chrysler (1925)

- **Agriculture (mechanization, fertilizers)**

- **Infrastructures (public lighting, railways, pipelines, roads, ..)**

- **Urbanisation and daily life improvement (heating, plastics, ...)**



# 1970-2015: Vulnerability due to an importer position

- **1973- First Oil shock** – Opec embargo against supporters of Israel  
→ energy shortage, price x 4, inflation surge, slow economic growth, unemployment,.. → Strategic Petroleum Reserve creation
- **1979- Second oil shock** – Iranian revolution reducing supply  
→ energy shortage, price x 2, fed fund rate at 20% to fight inflation...
- **1990 Oil price spike** – Iraq invaded Kuwait  
→ price x 2 (short lived) limited impact but highlighted U.S. dependency on Middle East oil
- **2000-2008 Energy crisis** - rising demand from China & India and geopolitical tensions in the ME  
→ investment in renewable energy and Shale oil exploration
- **2008-2009 Global Financial crisis** - oil price collapse from \$147 to around \$40  
→ highlighted volatility



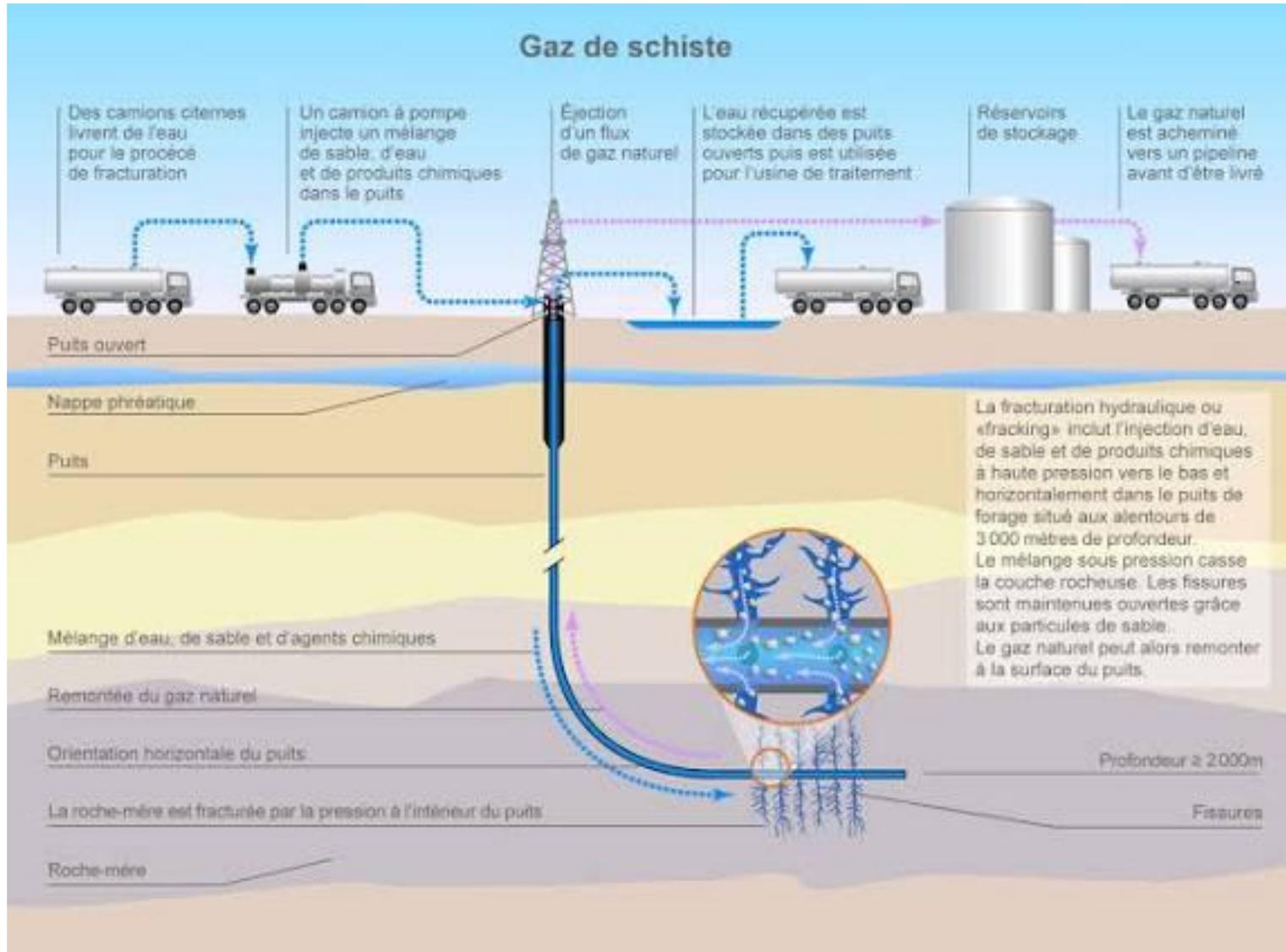
# 2015+ : The shale revolution dramatically changed the picture

- **Huge resources ensuring long term perspective**
  - Around B 80 b of oil
  - > 3,000 Tcf of NG (top WW position)
- **Technology driven revolution**
  - Horizontal drilling and fracking technique
- **All industrial capabilities domestically available for development at scale**
  - Rigs, fracking capabilities, contractors, logistics
- → U.S. net exporter of oil since 2020
- → U.S. net exporter of natural gas from 2017

**Breakeven evolution key for assessing oil/gas prices WW**



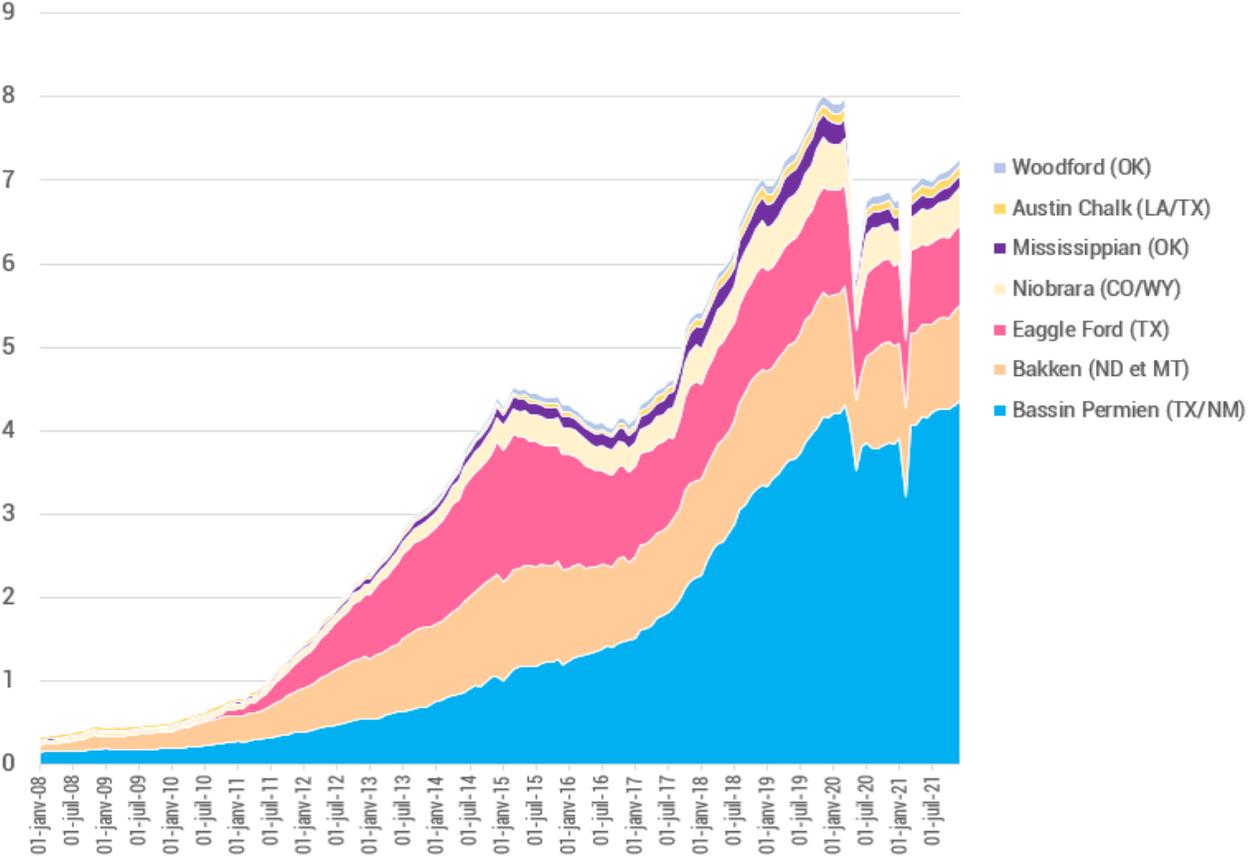
# What is shale about?



# Location & production



Millions de barils par jour

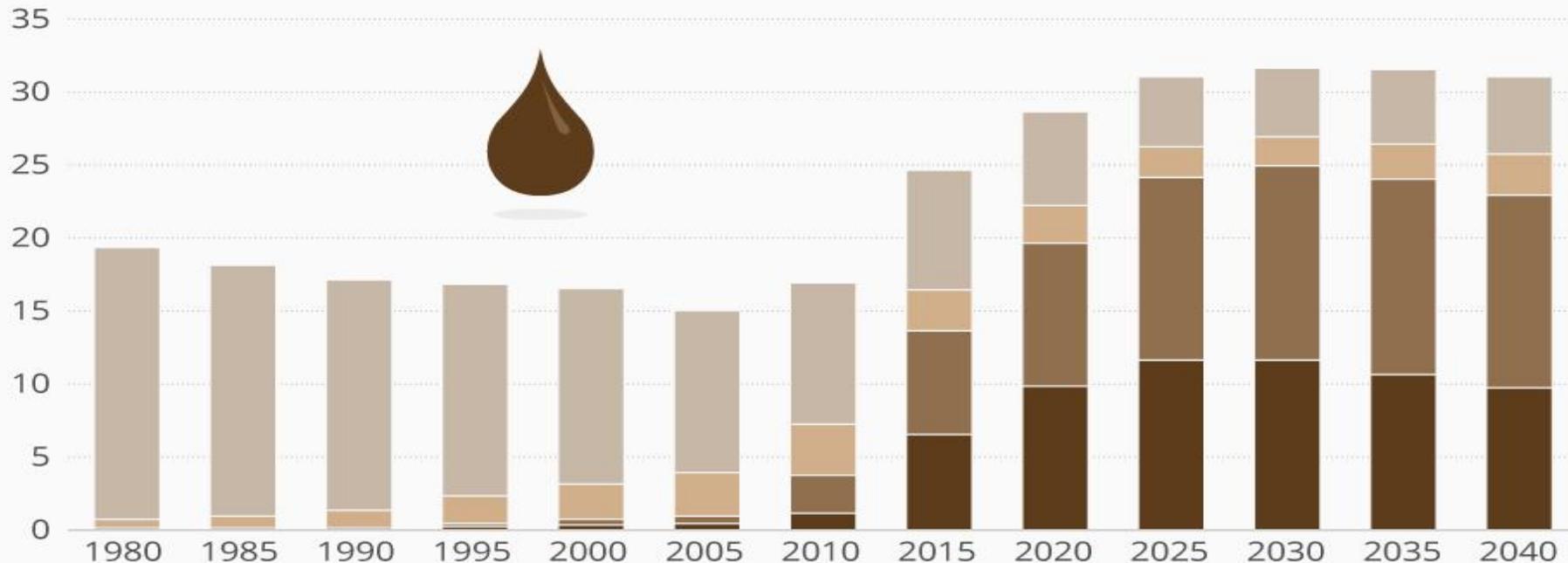


# Booming production from shale dramatically changes the picture

## The American Shale Revolution

Historical and projected U.S. oil and gas production (million barrels oil equivalent per day)

■ Shale oil   ■ Shale gas   ■ Other unconventionals   ■ Conventional oil and gas

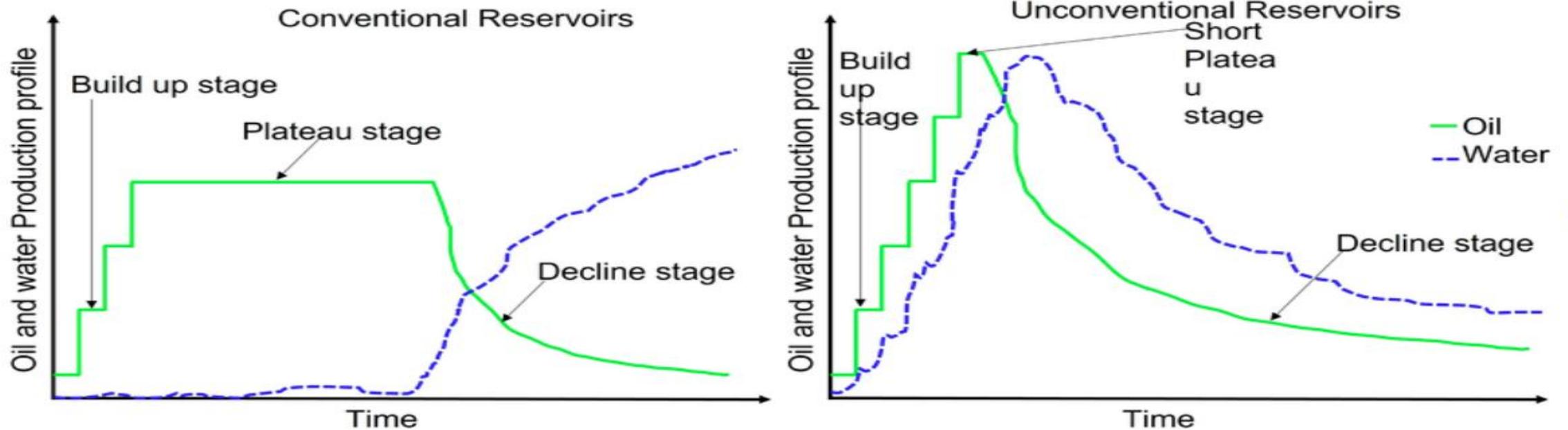


@StatistaCharts Source: IEA World Energy Outlook 2017

statista



# Unconventional reservoir production profile vs Conventional



Typical well oil and water production profiles for conventional and unconventional reservoirs

Reinvestment needed to maintain unconventional production plateau



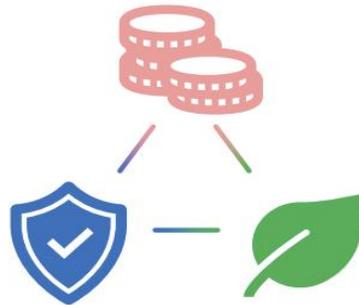
# The Energy dilemma

## The energy transition's three challenges



Ensuring that the world's growing population has access to the **affordable energy** necessary for human development

Ensuring **energy security** in every country  
(risk of unavailability and soaring prices)



**Decarbonising energy** to limit the effects in terms of Greenhouse Gases (~2/3 of which come from energy)

**Countries position themselves differently on these three key levers**

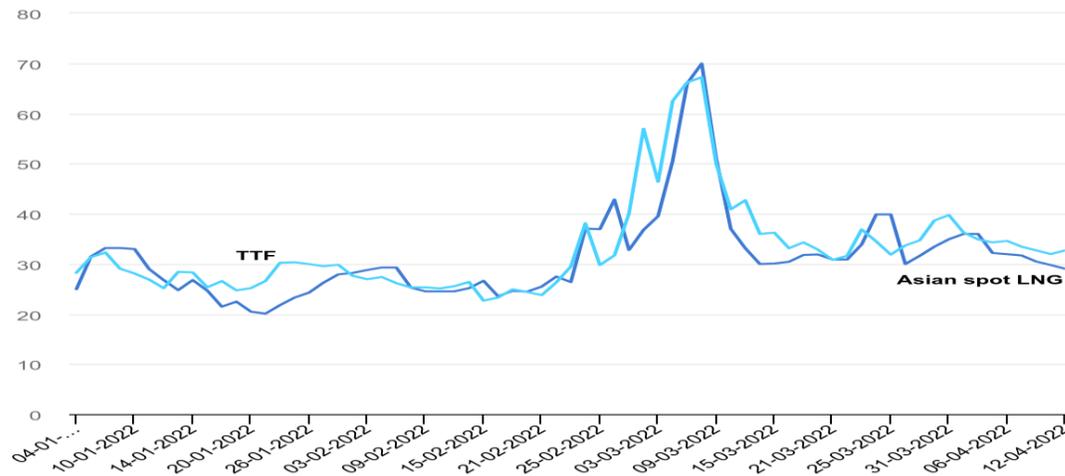




## **U.S. Energy priorities**

# U.S. priority N°1: Build on economic competitive advantage provided by cheap and abundant domestic energy

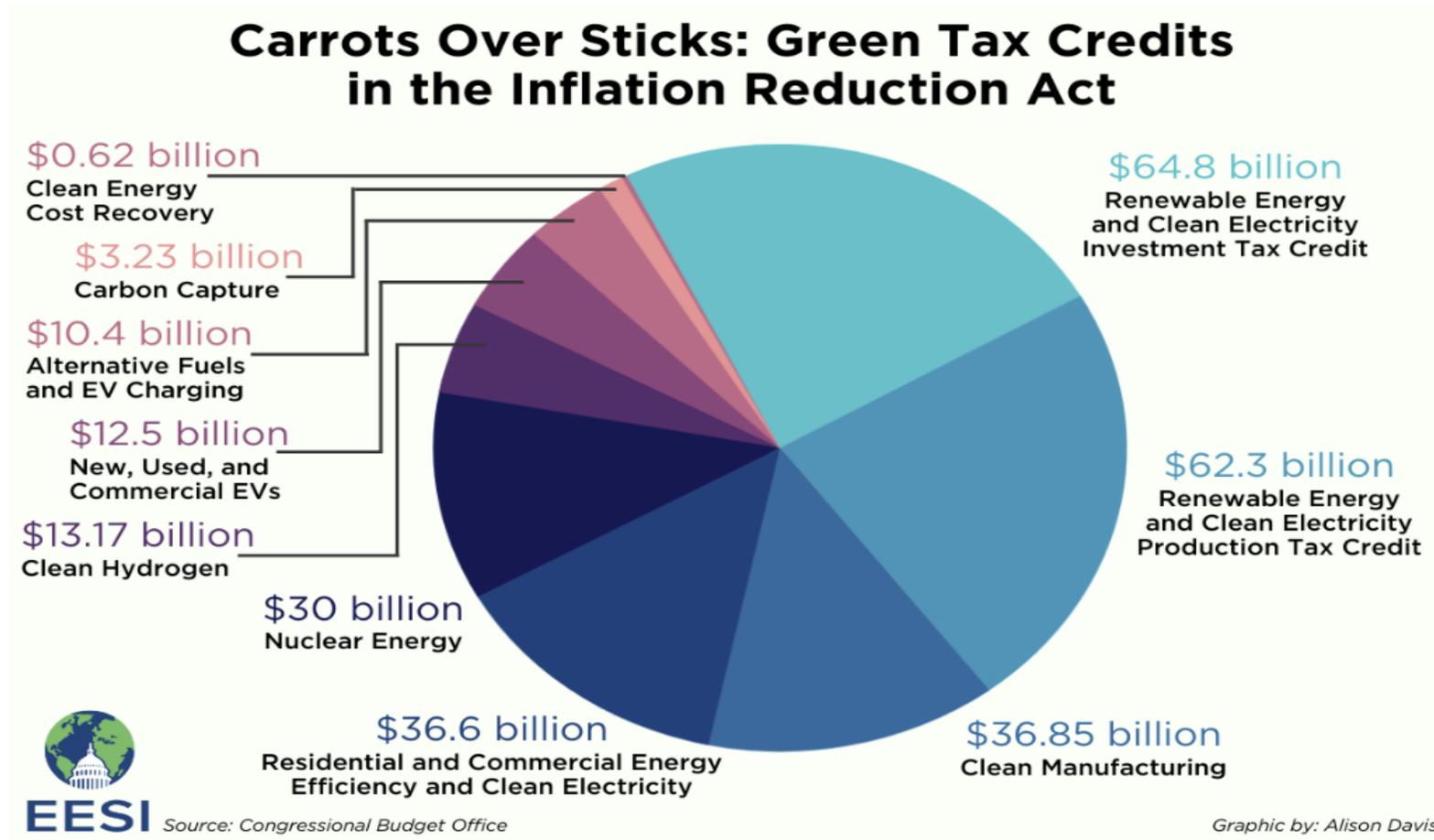
- Job creation boosted by the shale revolution (O&G > 2M direct jobs (est.) – X10 indirect)
- Affordable energy is a key competitive advantage:
  - Oil market is global but NG market is still local
    - Eg:TTF & JKM prices after Ukraine invasion by Russia (HH remained below \$8/Mbtu)



But radically different approaches between D and R on the « how »



# Biden Administration's IRA focused on renewable energy



ITC, PTC, grants & loans over 10-15 years > \$B300



# Trump 2 administration: Key Republican players in the energy domain

Position claimed as pragmatic vs ideological: Energy dominance = policy goal



**Doug Burgum** Chair of the « National Energy Dominance Council » (ex Governor of North Dakota)

Secretary of Interior

« There is not energy transition, there is only energy addition »



**Chris Wright** Secretary DoE (former Oil & Gas executive)

At NPC Dec 2025: We can « use America's [energy] assets to make prosperity at home and peace abroad »

# Republican approach on Oil

- « Drill baby drill »..... production at record levels

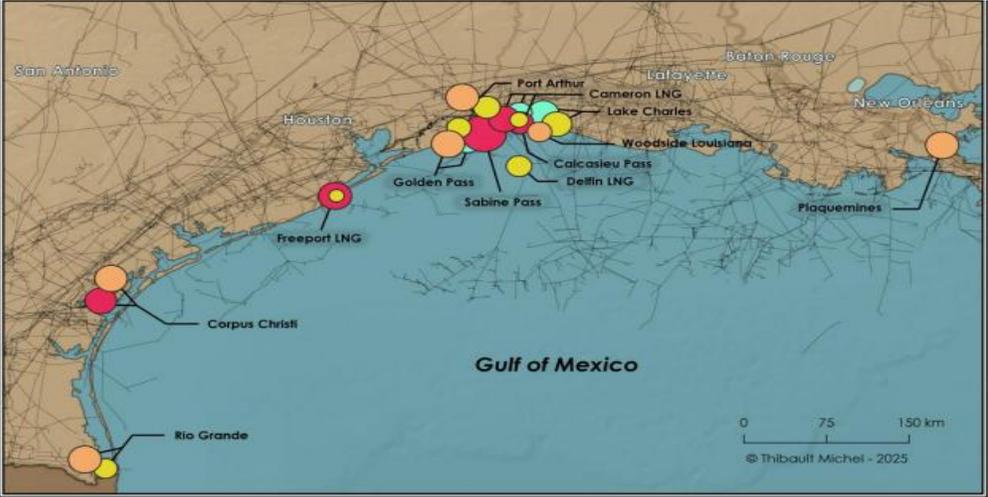


- but ability to further increase production significantly challenged by low prices and low level of DUCs (drilled but uncompleted wells) when Permian B/E around \$60/b
- Peak expected around 13.5 mmb/d in 2026/2027
- Refueling SPR not really progressing
- Short cycle assets - Price responsive supply

# Republican approach on Natural Gas

NG/LNG : production enjoying high momentum to around 15 Bcf/d. Demand driven by exports and the domestic power sector thru power plants

LNG U.S. terminals located to go East



LNG potential to reach around 300 Mt/y capacity

Existing capacity: 115 MT/y (around 20% of global capacity, 8T)

Highly probable future capacity (FID taken - 5T) : +100Mt/y

Max possible additional capacity (FID not taken - 10-15T): +85 Mt/y

Alaska focus (specific EO) to serve Asian markets

LNG is part of Trump's trade negotiation strategy, notably with the E.U (\$750 B) and South Korea (\$100B)  
China ceased its purchases of U.S. LNG January 2025



# Republican position on other energy sources

## For

- **Coal** « will be critical to meeting the rise in electricity demand » (EO April 8, 2025)
- **Hydropower and geothermal** promoted as baseload renewable
- **Nuclear** : 94 reactors - 97GW
  - 4 EOs signed May 23, 2025 to accelerate authorization
  - Lifetime top be extended to 80 Y
  - Capacity target to increase to 400GW
- **Critical minerals**
  - Target: « leading producer and processor of non-fuel minerals »
  - - Deals with Ukraine and RDC, Greenland rethoric
- **CCS**

## Against

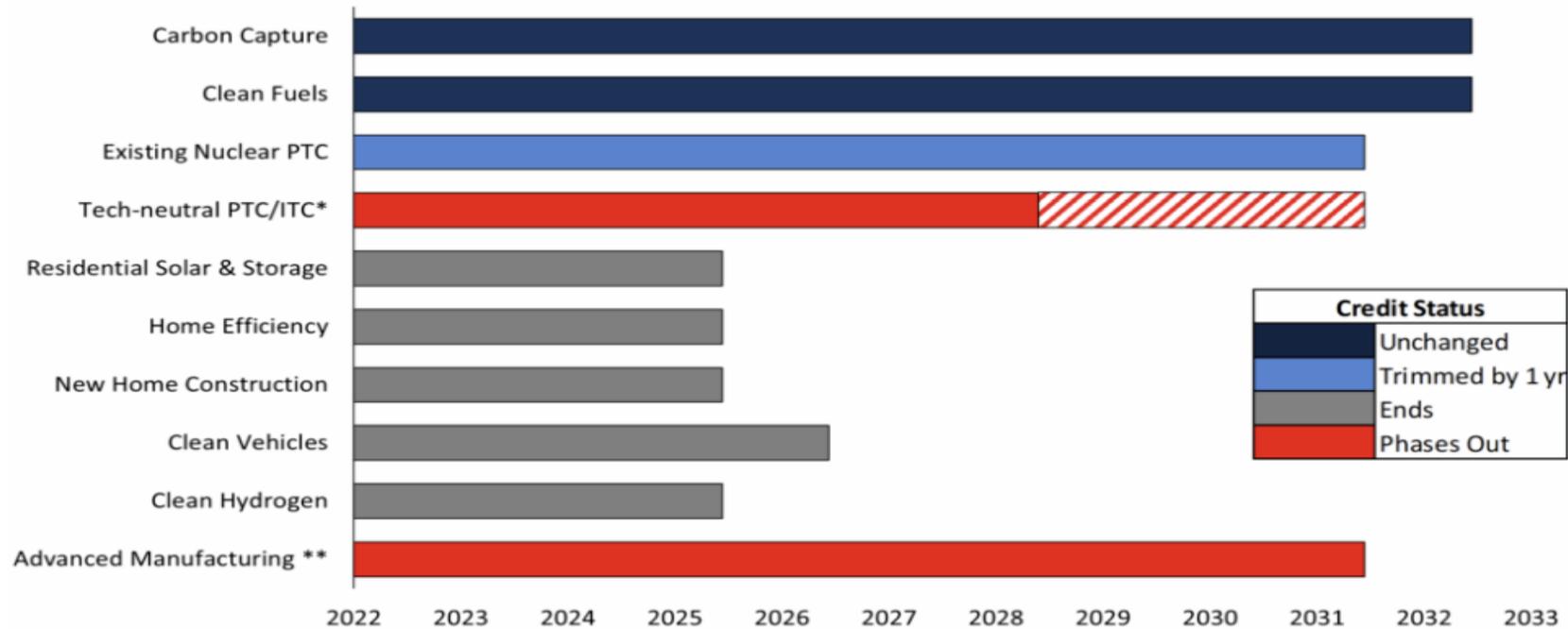
- **Solar & onshore wind** – EO July 5, 2025 « ending market distorting subsidies for unreliable foreign controlled energy sources » despite highest production factors (yield) + tariffs on steel & aluminium, cells
- **Moratorium on OW** (de facto ideological)
- **EVs** thru tariffs and tax credits removals

**Domestic debate: should the U.S. continue exporting oil & NG?**



# OBBBA vs IRA

## Clean Energy Credit Timelines Under OBBBA



Source: EVA

\*60-day & COD < '29 requirement for all but advanced nuclear to qualify

\*\* expires 12-31-27 for wind energy components

**Credit transferability narrowed**  
**Restrictions on Foreign Entity of Concern (FEOC) expanded**



# U.S. O&G private sector priorities: molecules, no electrons



- « Safely meeting the world's energy and products needs and reduce emissions »
- CCS, Blue H2, Biofuels, Lithium, methane emissions reduction, reduce carbon intensity of operated assets (scope 1+2)



- « Provide affordable, reliable, ever cleaner energy »
- CCS, renewable fuels, methane emissions reduction, reduce carbon intensity of operated assets (scope 1+2)\*



- « Independent E&P Company producing O&G resources that power civilization »
- reduce carbon intensity of operated assets (scope 1+2)



- « Provide reliable energy while reducing gas emissions »
- CCS, DAC, reduce carbon intensity of operated assets
- « Achieve net zero for total carbon inventory with an ambition to do so before 2050 \*\*»



# Priority N°2: Ensuring security of supply and using energy as a geopolitical lever

## Historic attempts at cooperation.....

- Saoud-Roosevelt on USS Quincy (1945)
- GATT (1947) and WTO (1994)
- Atoms for peace 1953 → AIEA 1957
- IEA 1974 (created by OECD following first oil shock 1973)
- UNFCCC 1992, COP since 1995 X
- U.S. joined IRENA in 2010 X

## ...followed by withdrawals and energy leverage...

- U.S. sanctions on Russia's two largest oil Cies
- Threats of tariffs against India if it did not cease Russian oil purchases
- Pressure on Europe to buy U.S. LNG
- Venezuela oil blockade, NOPEC bill, ...

## ...and a shift from market led approaches toward state capitalism

- State equity stakes in energy projects
- State involvement to reduce supply chain dependency
- State pressure towards private sector (Venezuela – « \$B100's to be invested »)
- ...



# Recent acceleration: Energy and U.S. geopolitics more and more deeply intertwined

## Western hemisphere dominance

- **Venezuela** oil reserves at the top WW
  - U.S. Gulf of Americas refineries fitted to process heavy crude.
  - Controlling more strictly Western hemisphere helps deterring China's desire to enter and provokes OPEC
  - ... but the strong language used («taking back the oil» is judged offensive by some U.S. people and the private sector remains cautious (XOM: « uninvestable » as B/E remain high and require long term stability)
- **Mexico and Colombia** are also large energy suppliers

## And beyond « Donroe doctrine »...

- **Greenland** rare earth resources make the area key for U.S. national security
  - but case is questioned economically\*
  - transactional approach mixing tariffs and sovereignty brings geopolitics to a new unknown level
- **Iran** not only a nuclear threat but also O&G rich



# Priority N°3 (or not a priority at all) - Climate

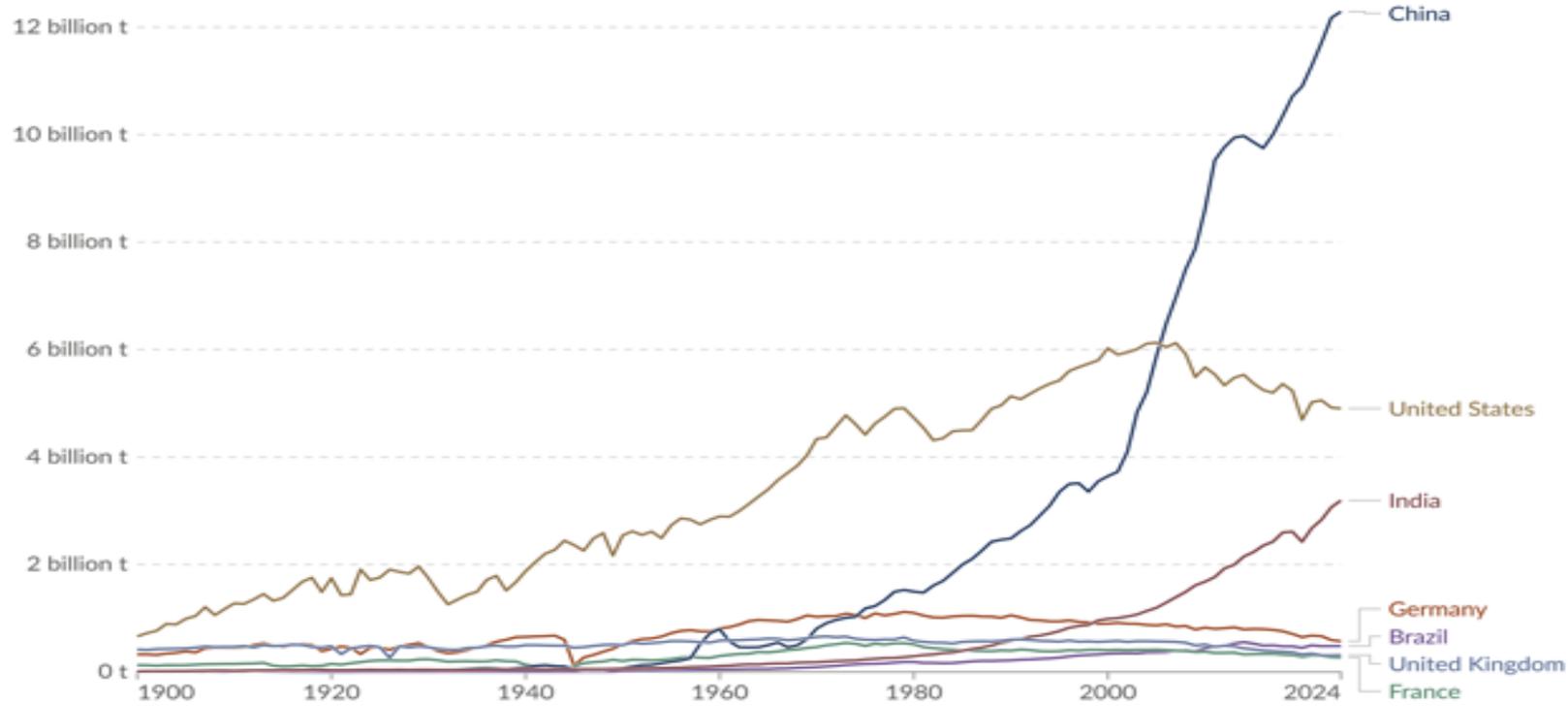


# Country by country CO2 emissions evolution

## Annual CO<sub>2</sub> emissions

Carbon dioxide (CO<sub>2</sub>) emissions from fossil fuels and industry<sup>1</sup>. Land-use change emissions<sup>2</sup> are not included.

Our World  
in Data



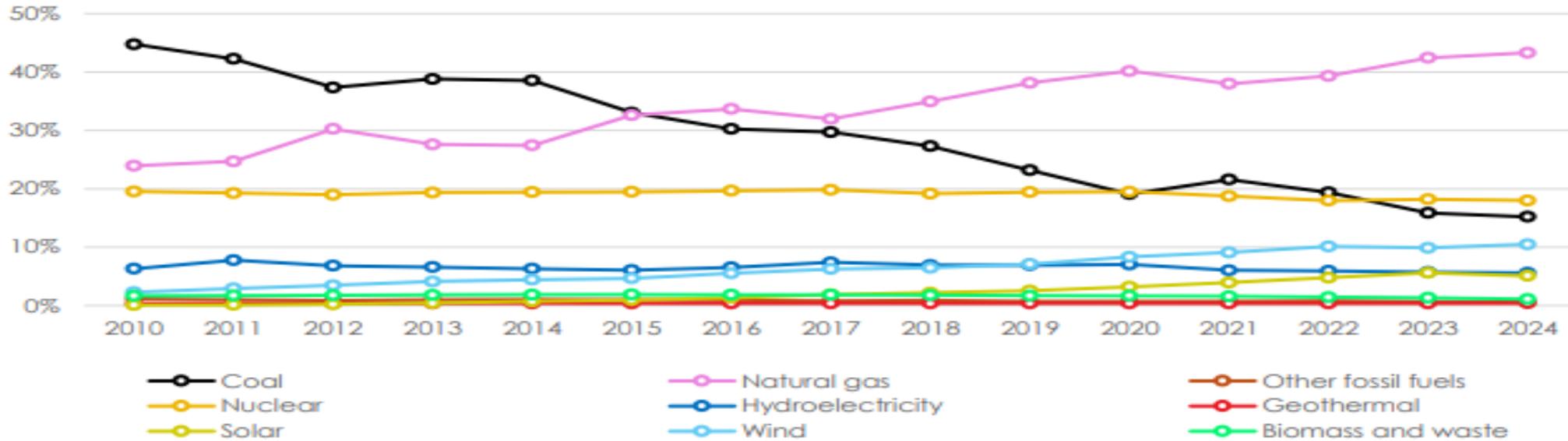
Data source: Global Carbon Budget (2025)

OurWorldinData.org/co2-and-greenhouse-gas-emissions | CC BY



# The odd reality: The U.S. best in class in decarbonization

**Figure 7. Share of US electricity generation by source, 2010-2024**



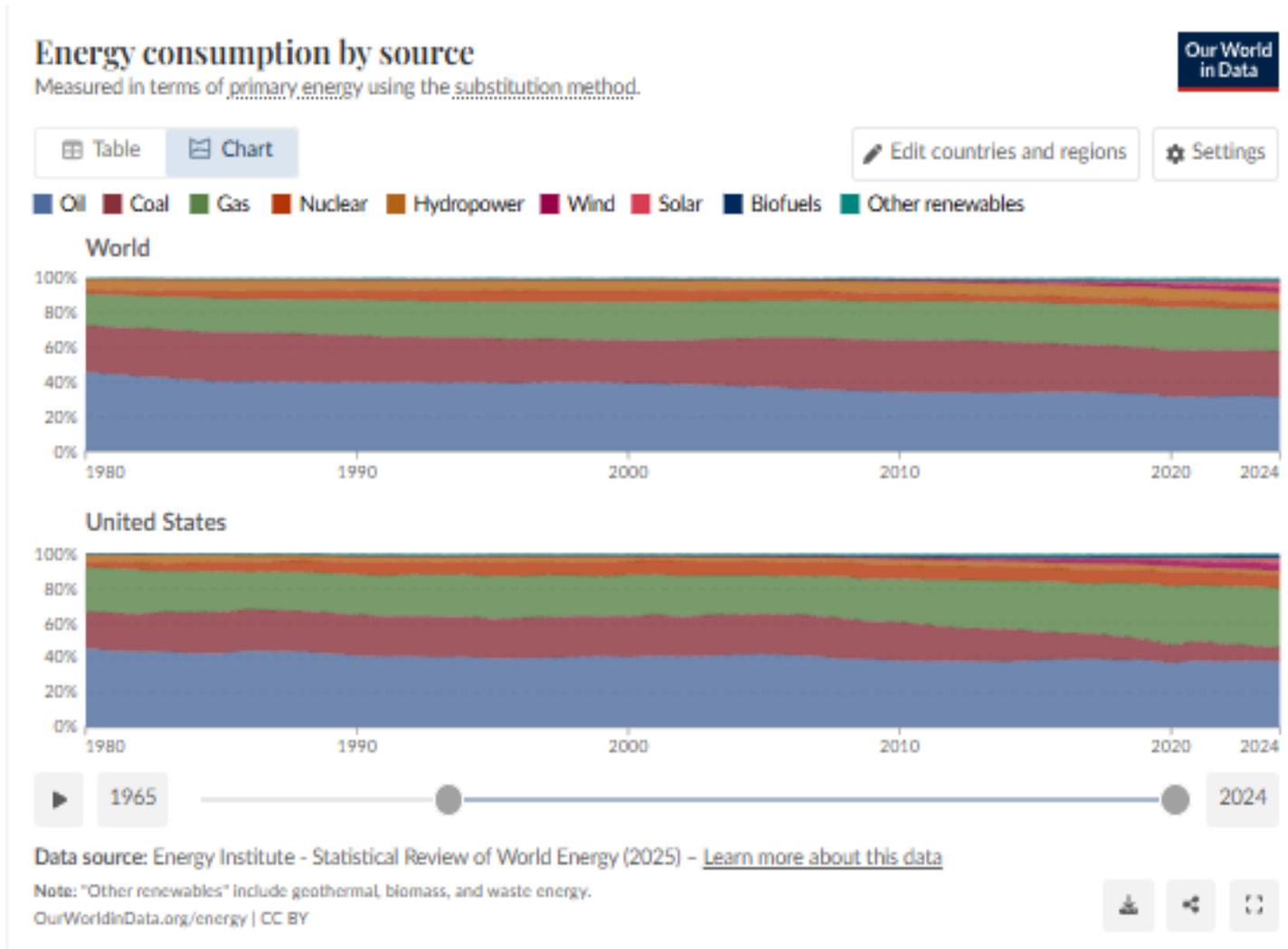
Source: Ifri, based on data from the EIA, available at: <https://www.eia.gov>.

Switch from coal to gas for economic reasons benefitted emissions reduction

Emissions bounced back in 2025



# U.S. Energy mix evolution vs World



## U.S. vs World in 2024

- More Oil: 37.8% vs 31.5%
- More NG: **34.2% vs 23.6%**
- More Nuclear: 7.6% vs 3.9%
- Less Coal: **8.3% vs 26.2%**
- Less Hydro: 2.2% vs 6.2%
- Same Wind & Solar: 7.0% vs 6.4%
- Same Bio & other REN: 2.8% vs 2.2%

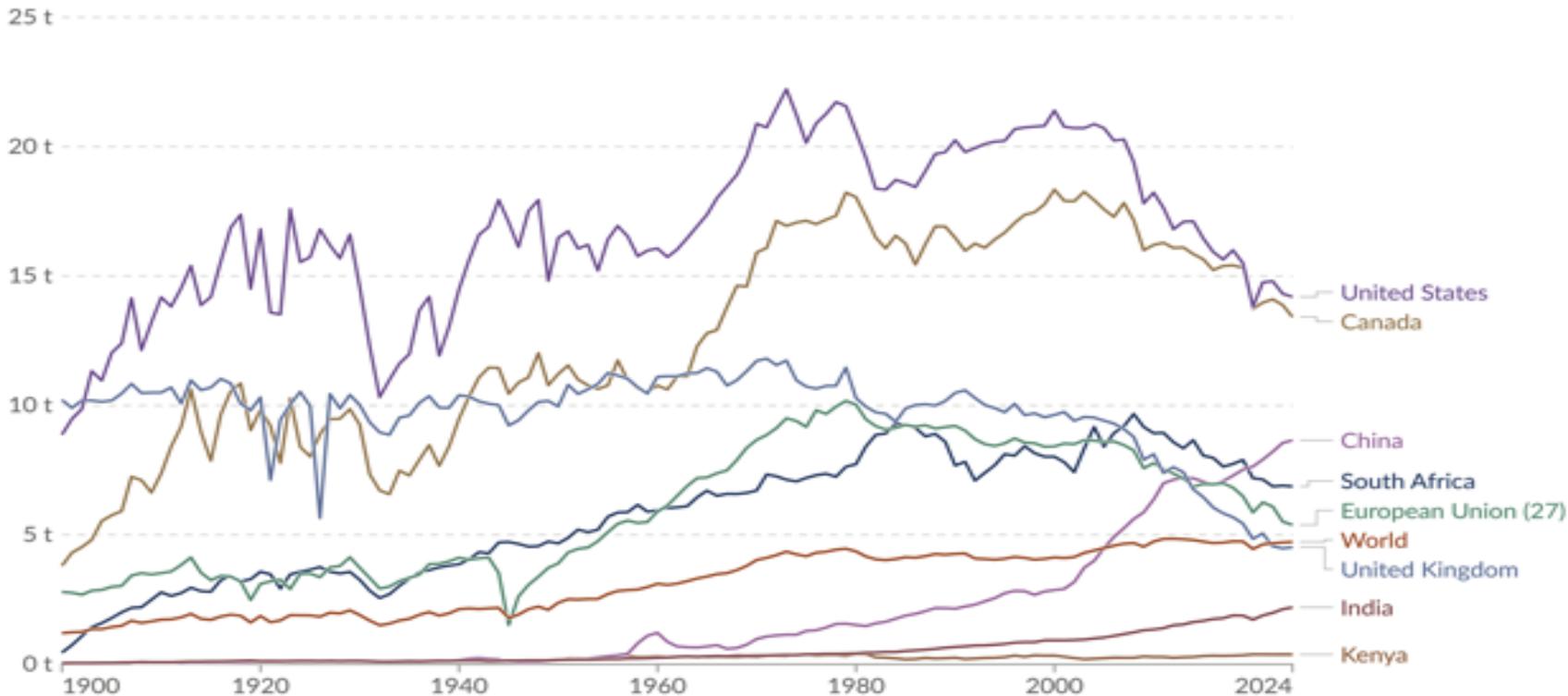


# CO2 emission per capita (large countries)

## CO<sub>2</sub> emissions per capita

Carbon dioxide (CO<sub>2</sub>) emissions from burning fossil fuels and industrial processes<sup>1</sup>. This includes emissions from transport, electricity generation, and heating, but not land-use change<sup>2</sup>.

Our World  
in Data



Data source: Global Carbon Budget (2025); Population based on various sources (2024)  
OurWorldinData.org/co2-and-greenhouse-gas-emissions | CC BY

2024

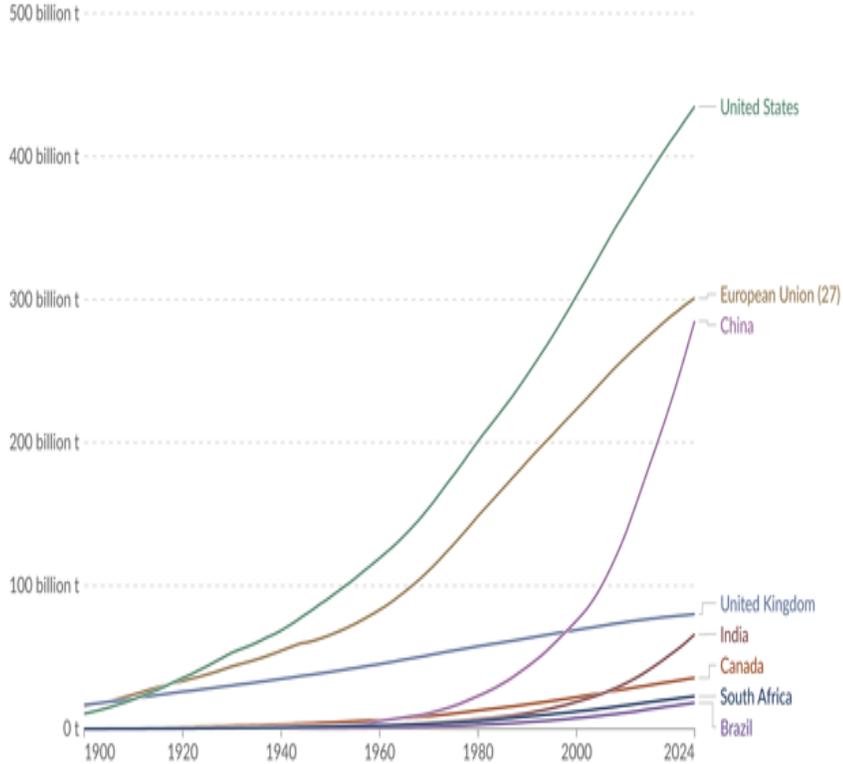
**U.S. : 14,20**  
**China: 8,66**  
**EU (27): 5,39**  
**World: 4,73**



# Cumulative emissions

## Cumulative CO<sub>2</sub> emissions

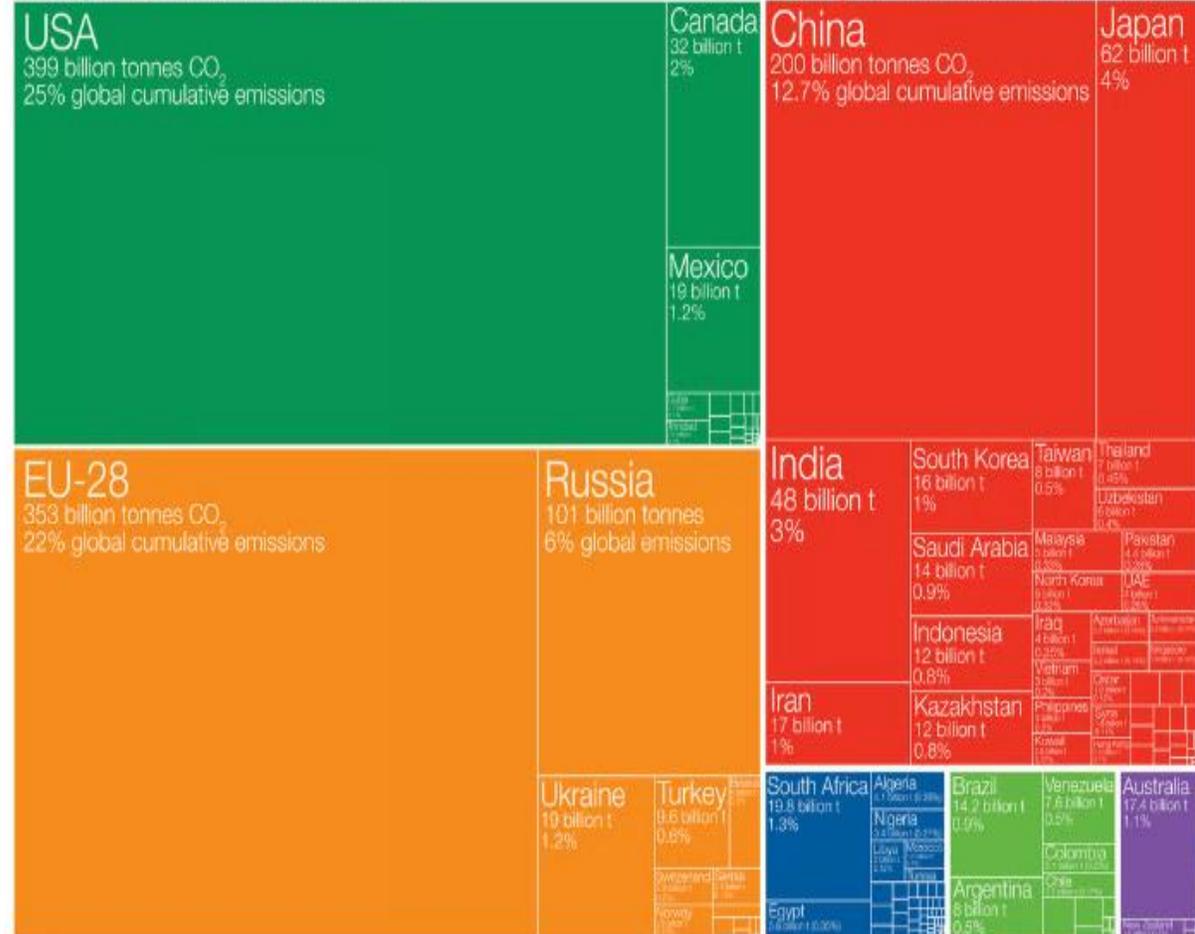
Running sum of CO<sub>2</sub> emissions produced from fossil fuels and industry<sup>1</sup> since the first year of recording, measured in tonnes. Land-use change emissions<sup>2</sup> are not included.



Data source: Global Carbon Budget (2025)

OurWorldinData.org/co2-and-greenhouse-gas-emissions | CC BY

**North America**  
457 billion tonnes CO<sub>2</sub>  
29% global cumulative emissions



**Asia**  
457 billion tonnes CO<sub>2</sub>  
29% global cumulative emissions

**Oceania**  
20 billion tonnes CO<sub>2</sub>  
1.2% global emissions

Source: Our world in data. Cumulative CO<sub>2</sub> emissions for the period 1751 to 2017 from fossil fuel combustion and cement



# Trump's Administration positions on Climate change

- **External**

- Exit from Paris agreement for the second time
- Exit from U.N. task force on CC (UNFCCC, ...)
- Announced exit from IRENA
- Voiced opposition to policies supporting environmental, social and governance criteria spreading influence beyond the U.S.

- **Internal**

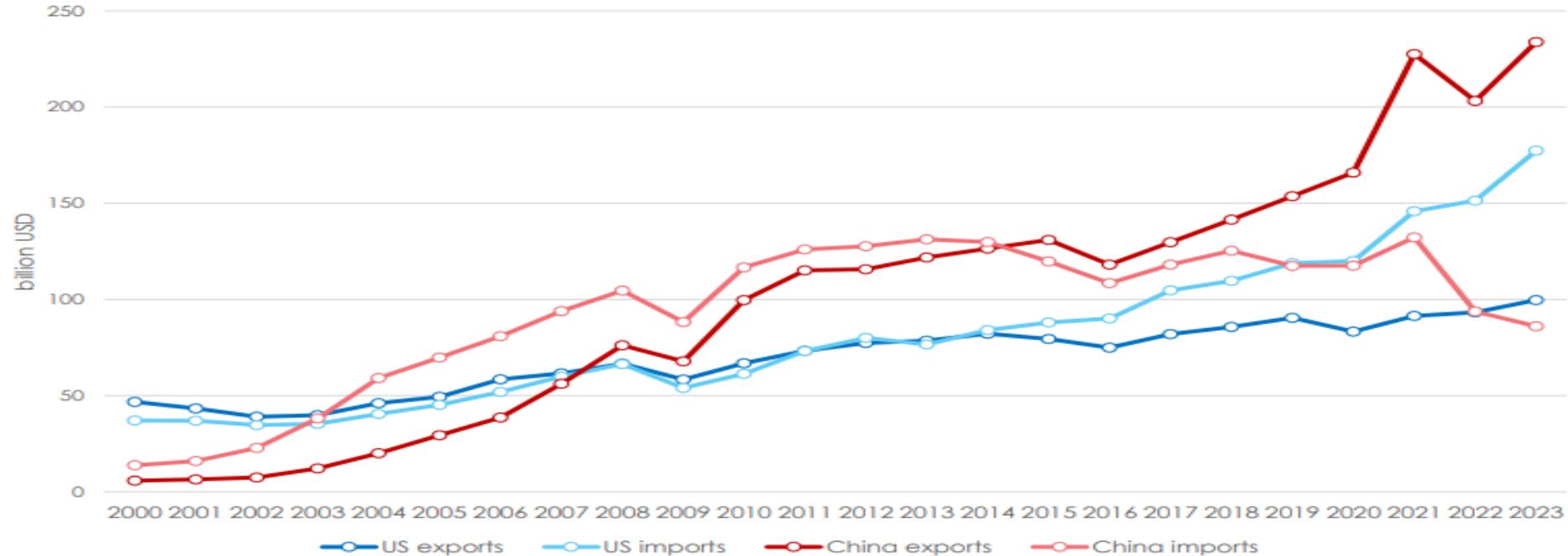
- Climate change : « a giant hoax » (Psdt Trump)
- EPA « endangerment finding » seriously questioned
- No carbon, nor methane tax (the most efficient economic tools to fight against CC)

**Climate justice concept ignored**



# Low carbon technologies to the advantage of China

Figure 20. US and China exports and imports of low-carbon technology products, 2000-2023



Source: Ifri, based on "Trade in Low Carbon Technology Products", International Monetary Fund (IMF), Climate Change Dashboard, available at: <https://climatedata.imf.org>.

The U.S. is losing the race for energy transition technologies to China



# Outlook / Food & Fuel for thoughts ....

- **« The reason of the strongest is always best; we shall now show it to your satisfaction » \***  
*(The wolf and the lamb - Jean de La Fontaine)*
  - New situation or back to the normal after post WWII intent to move away from the « iron laws » that caused it?
  - « the end of a pleasant fiction and the beginning of a harsh reality? » Mark Carney's, Canada PM at Davos 2026
- **Everyone goes their own way, and may the best win...**
- **Deglobalisation (or multi-bilateral deals approach) makes affordability and security of supply overcoming climate**
- **The energy transition will be significantly delayed due to the U.S. current policy/position**
- **The world of energy would have been completely different without the shale revolution**
- **Can a transactional, short term, trial & error based business approach be succesful when applied to geopolitics and climate challenge?**

\* « We live in a world that is governed by strength, ..by force, ...by power » – Stephen Miller, Deputy Chief of staff for policy and homeland security advisor/ ITW CNN January 2026



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