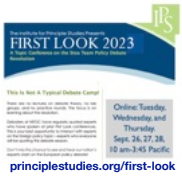
economicthinking

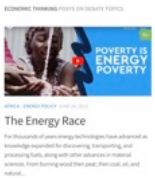


principlestudies.org/first-look

Exploring the Energy Race

U.S. energy policies and programs distort the search for cleaner, more reliable, more affordable energy

Gregory Rehmke • Economic Thinking • grehmke@gmail.com

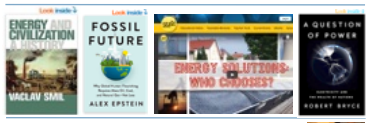


The Energy Race

US/Europe Energy Policies and Exports

economicthinking.org/category/energy-policy

ECONOMIC FREEDOM AND FEDERAL ENERGY POLICY



ECONOMICS - DEBATE - HISTORY - GOVERNMENT

ECONOMIC THINKING WORKSHOPS

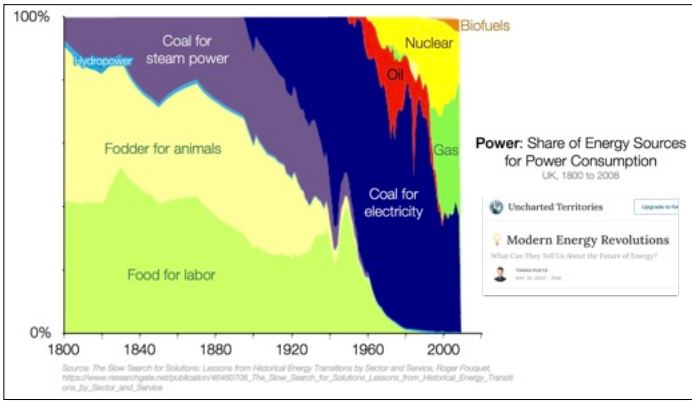
- **Date and Time: Saturday, Sept. 16, 5-9 pm.**
- **Location: Rose Garden Library community room, 1580 Naglee Ave, San Jose, CA 95126**
- **Cost:** $25 per student, $15 siblings, no cost for parents.
- **For more information**: Contact Greg Rehmke, *grehmke@gmail.com*

Resolved: The [USFG] should substantially reform its energy policy.

Gregory Rehmke, Program Director, Economic Thinking. grehmke@gmail.com

Energy innovation and entrepreneurship flourish where economic freedoms and property rights are secure. State and federal regulations, subsidies, and taxes distort U.S. energy production, distribution, and consumption, plus have made the electrical grid less reliable.

economicthinking.org/category/energy-policy

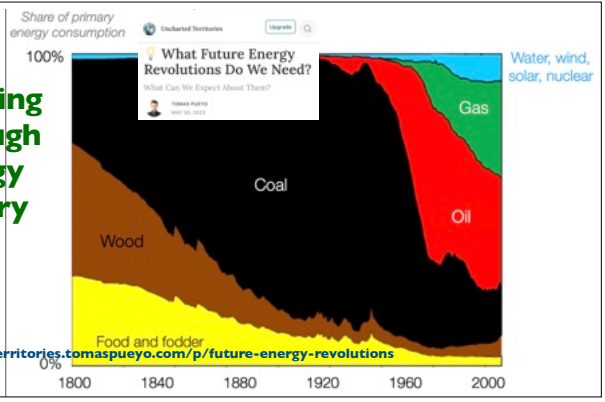


Source: The Slow Search for Solutions: Lessons from Historical Energy Transitions by Sector and Service, Roger Fouquet, https://www.researchgate.net/publication/46460708_The_Slow_Search_for_Solutions_Lessons_from_Historical_Energy_Transitions_by_Sector_and_Service

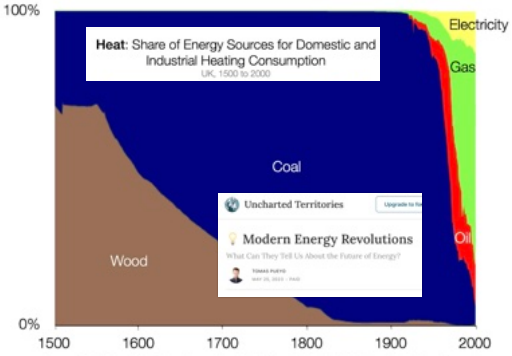
Power: Share of Energy Sources for Power Consumption

UK, 1800 to 2008

Looking through energy history



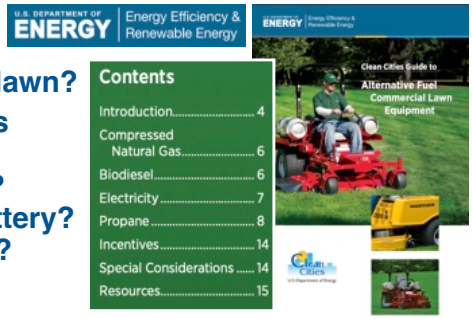
unchartedterritories.tomaspueyo.com/p/future-energy-revolutions



unchartedterritories.tomaspueyo.com/p/future-energy-revolutions

Energy? What is it? What do we use it for?

- Energy for… mowing the lawn?
- Lawnmowers powered by: Teens? Gas? Electric? Battery? Solar? Wind? Steam?



Energy Reality and Energy Policies

Federal government policies/regulations/subsidies of…

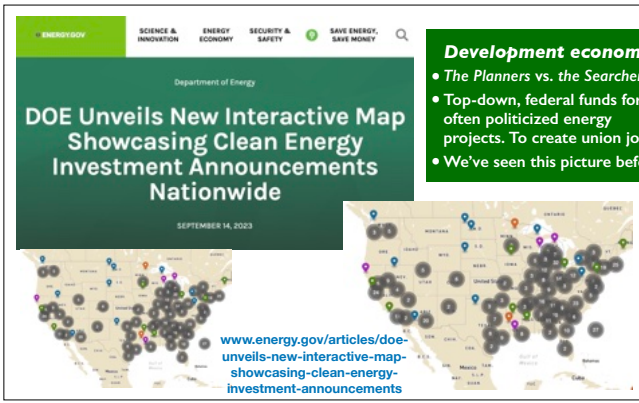
Energy production
(exploration, extraction, processing)

Energy transport
(truck, ship, rail, pipeline, transmission)

Energy use
(electric vs. gas cars and heating, RFP/ethanol, energy efficiency)

CEI Special Briefing Series: Defending the Personal Energy Choices of Americans

By: Daren Bakst • 09/25/2023



Development economics

- *The Planners vs. the Searchers*
- Top-down, federal funds for often politicized energy projects. To create union jobs.
- We've seen this picture before…

www.energy.gov/articles/doe-unveils-new-interactive-map-showcasing-clean-energy-investment-announcements

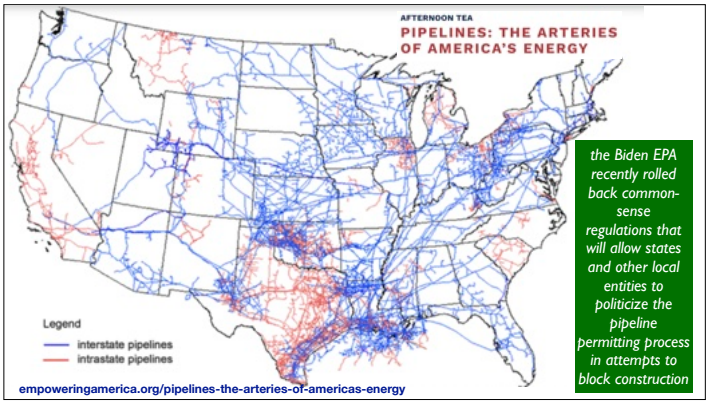
AFTERNOON TEA

PIPELINES: THE ARTERIES OF AMERICA'S ENERGY

THE EMPOWERMENT ALLIANCE

- The U.S. has the largest network of pipelines in the world with 2.6 million miles stretching across the country.
- According to the U.S. Pipeline and Hazardous Materials Safety Administration, pipeline systems are the safest means to move oil and gas products.
- Pipelines deliver over 680 billion gallons of energy products annually.
- The U.S. natural gas pipeline network connects to 68 million households and more than five million commercial enterprises.

empoweringamerica.org/pipelines-the-arteries-of-americas-energy



the Biden EPA recently rolled back common-sense regulations that will allow states and other local entities to politicize the pipeline permitting process in attempts to block construction

empoweringamerica.org/pipelines-the-arteries-of-americas-energy

COMPETITIVE ENTERPRISE INSTITUTE

CEI Advises CEQ to Withdraw Its NEPA Guidance on Greenhouse Gas Emissions and Climate Change

Marlo Lewis, Jr. • 03/15/2023

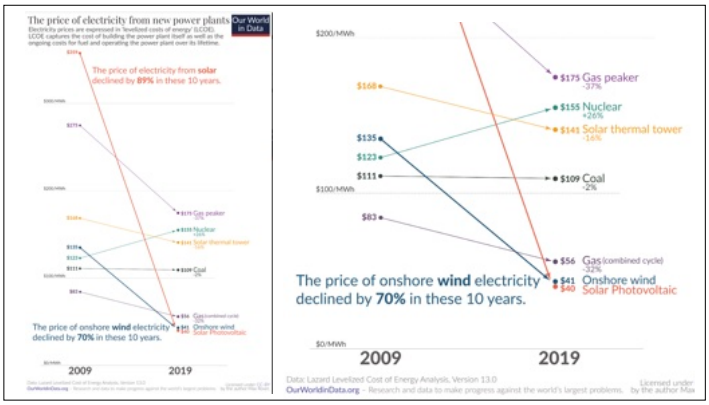
NEPA, enacted on January 1, 1970, is a procedural statute intended to ensure that federal agencies examine the potential environmental impacts of proposed actions—such as approving the construction of infrastructure projects—before finalizing their decisions.

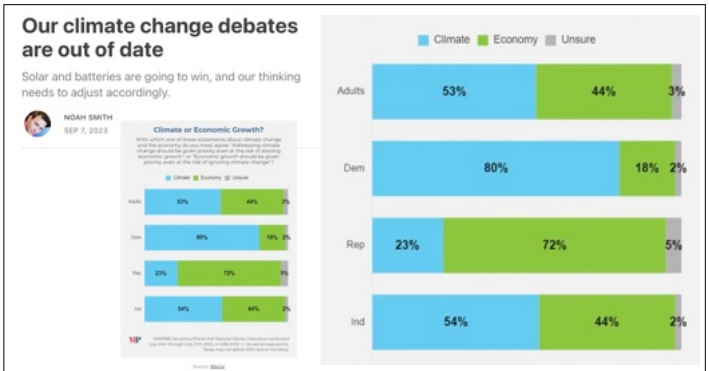
CEQ's guidance "encourages" (i.e. requires) agencies to align infrastructure project reviews with "national, science-based GHG reduction policies"—specifically, President Biden's Paris Agreement pledge to cut U.S. GHG emissions in half by 2030 as part of a government-wide effort to achieve net-zero emissions by 2050.

cei.org/blog/cei-advises-ceq-to-withdraw-its-nepa-guidance-on-greenhouse-gas-emissions-and-climate-change

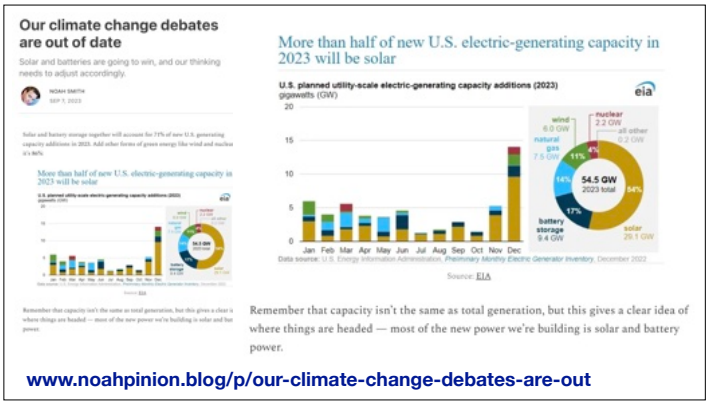
cei.org/studies/permitting-reforms-finally/

www.americanprogress.org/article/nepa-permitting-process-crucial-to-renewable-infrastructure-project-success/





www.noahpinion.blog/p/our-climate-change-debates-are-out



www.noahpinion.blog/p/our-climate-change-debates-are-out

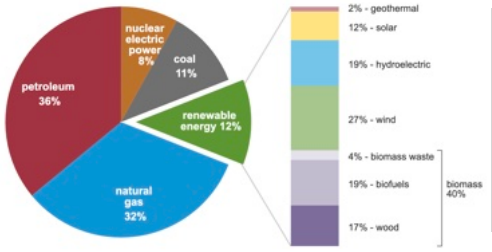
Which Wind and Solar Tech?

Competition across energy ecosystem…

- What size wind turbines work best? Offshore, on or both?
- Which wind turbine designs are best?
- We don't know what we don't know about wind turbines.
- Billions to subsidize today's wind turbine farms aren't available for future improved designs.

U.S. primary energy consumption by energy source, 2021

total = 97.33 quadrillion British thermal units (Btu)

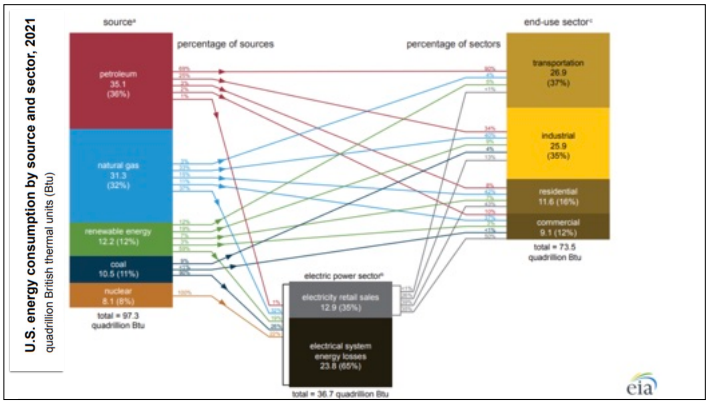


total = 12.16 quadrillion Btu

The history of federal energy policies…

Energy, economics and foreign policies.

Data source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.3 and 10.1, April 2022, preliminary data
Note: Sum of components may not equal 100% because of independent rounding.



Economics and Engineering

Energy explorations…

- Energy Economics: *incentives*, *information*, and *tradeoffs*.
- We don't know what we don't know about energy.
- Energy discoveries, inventions, innovations coming fast.
- Through history—from wood to peat to coal, oil and natural gas—costs fell, energy density and reliability increased, and pollution (emissions) fell. Cleaner power.
- Nuclear pollutes less, but with complexity & higher costs.
- Hydropower and geothermal limited by location.
- Wind and solar continue to improve, along with energy storage options, but costs and reliability still a challenge.
- Technologies advance across the energy landscape.