

# The Future of Nuclear Power: Confidence or Concern?

## *A National Security Imperative*

---

DAVID GATTIE ([DGATTIE@UGA.EDU](mailto:DGATTIE@UGA.EDU))

UNIVERSITY OF GEORGIA

COLLEGE OF ENGINEERING AND CENTER FOR INTERNATIONAL TRADE & SECURITY

THE ENERGY COUNCIL'S 2025 FEDERAL ENERGY AND ENVIRONMENTAL MATTERS CONFERENCE

JUNE 7, 2025

# National Security Imperative for All Energy Resources & Technologies

THE  
NATIONAL  
INTEREST



## U.S. Energy Strategy: Prioritizing Peace Through Strength

January 29, 2025 | By: David Gattie

TALKING points

## U.S. ENERGY: PRIORITIZING NATIONAL POWER AND COMPETITIVE ADVANTAGE

By David Gattie, Ph.D.  
University of Georgia

ON SEPT. 3, 1783, THE AMERICAN WAR FOR INDEPENDENCE officially ended with the signing of the Treaty of Paris, acknowledging that the 13 American colonies were a free, sovereign and independent nation. A free, sovereign and independent nation that would be on its own, exposed and vulnerable to the great powers of the world and no longer under the protection and security of Great Britain — one of the more dominant world powers at that time.

The early founders were keenly aware that the world was an arena of great power competition and those great powers would inevitably challenge America's fledgling experiment in self-governance. They also understood that a strong industrial base and competitive advantage — economic, industrial and military — translated to national power and the capacity to compete in this global arena. Without it, the U.S. would remain exposed and vulnerable to external threats.

Since those early years, the U.S. has become the single most powerful nation in history as was demonstrated on a global scale when America served as the "Arsenal of Democracy" for World War II. It reached a pinnacle at the conclusion of the Cold War with the USSR as the U.S.

emerged as the lone global superpower. What energized and mobilized America's rise to this level of power, what fueled it as the "Arsenal of Democracy," has been predominantly fossil fuels with nuclear power eventually incorporated for broader national security interests.

Simply stated, America's 150-plus years of accrued national power and competitive advantage in energy resources, energy technologies and industrial capacity were enlisted to deliver the great powers of Europe from dictatorship and prevent the spread of Soviet Communism. Yet today fossil fuel consumption is being characterized as an addiction the U.S. should wean itself off of in order to battle a different opponent — global climate change. As if great power competition and authoritarian threats to freedom and democracy have ended and there are no more geopolitical threats to U.S. national security.

While the current administration has reoriented U.S. energy policy away from climate change to energy dominance, the proposed energy transition away from fossil fuels continues to be spoken of as if it's inevitable and can't be reversed. Meaning, efforts to shift the U.S. back to a

NAPExpo.com 59

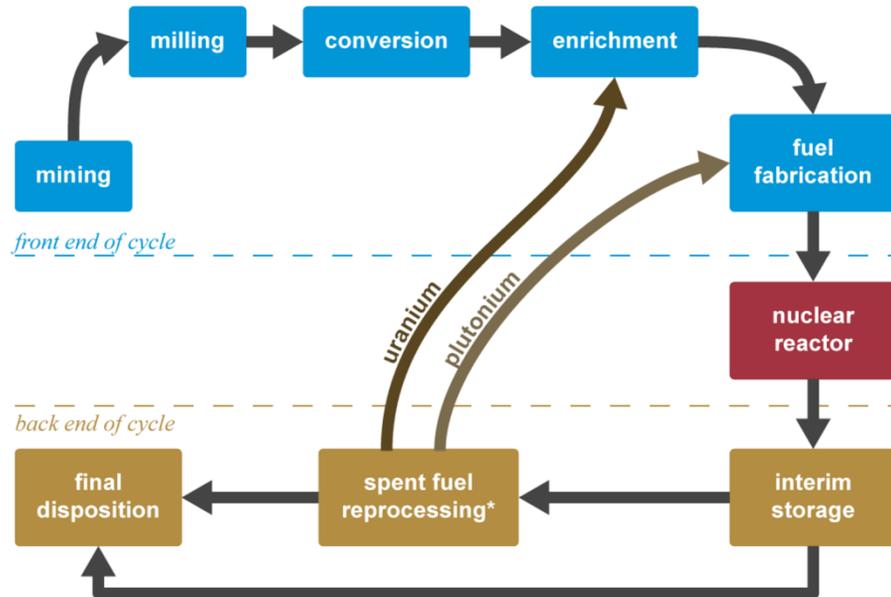
# President Trump's Executive Orders on Nuclear: Lowering Hurdles, Removing Barriers

---

1. Deploying Advanced Reactor Technologies for National Security
2. Ordering Reform of the Nuclear Regulatory Commission
3. Reforming Nuclear Reactor Testing at the Department of Energy
4. Reinvigorating the Nuclear Industrial Base

# Strategic, National Security-Centric *The Full Nuclear Fuel Cycle*

## Nuclear fuel cycle



\*Spent fuel reprocessing is omitted from the cycle in most countries, including the United States.

Source: Pennsylvania State University Radiation Science and Engineering Center (public domain)

- Addresses long-overdue attention to front-end of the fuel cycle
  - Dependency on imports
- Leverages DoD and DOE to create a demand signal for new reactors moving up the learning curve, down the cost curve, spin up a supply chain for the nuclear industrial base and reach economy of scale
  - Move up the learning curve, down the cost curve, spin up industrial base supply chain to reach economy of scale and get past non-recurring engineering of Serial No. 0001, 0002, 0003...
  - Lower cost of entry for utilities
- Revisits spent fuel reprocessing
  - Cost relative to enrichment remains a concern
  - Will look to advanced reactors as an option (*Note: 1994 IFR*)

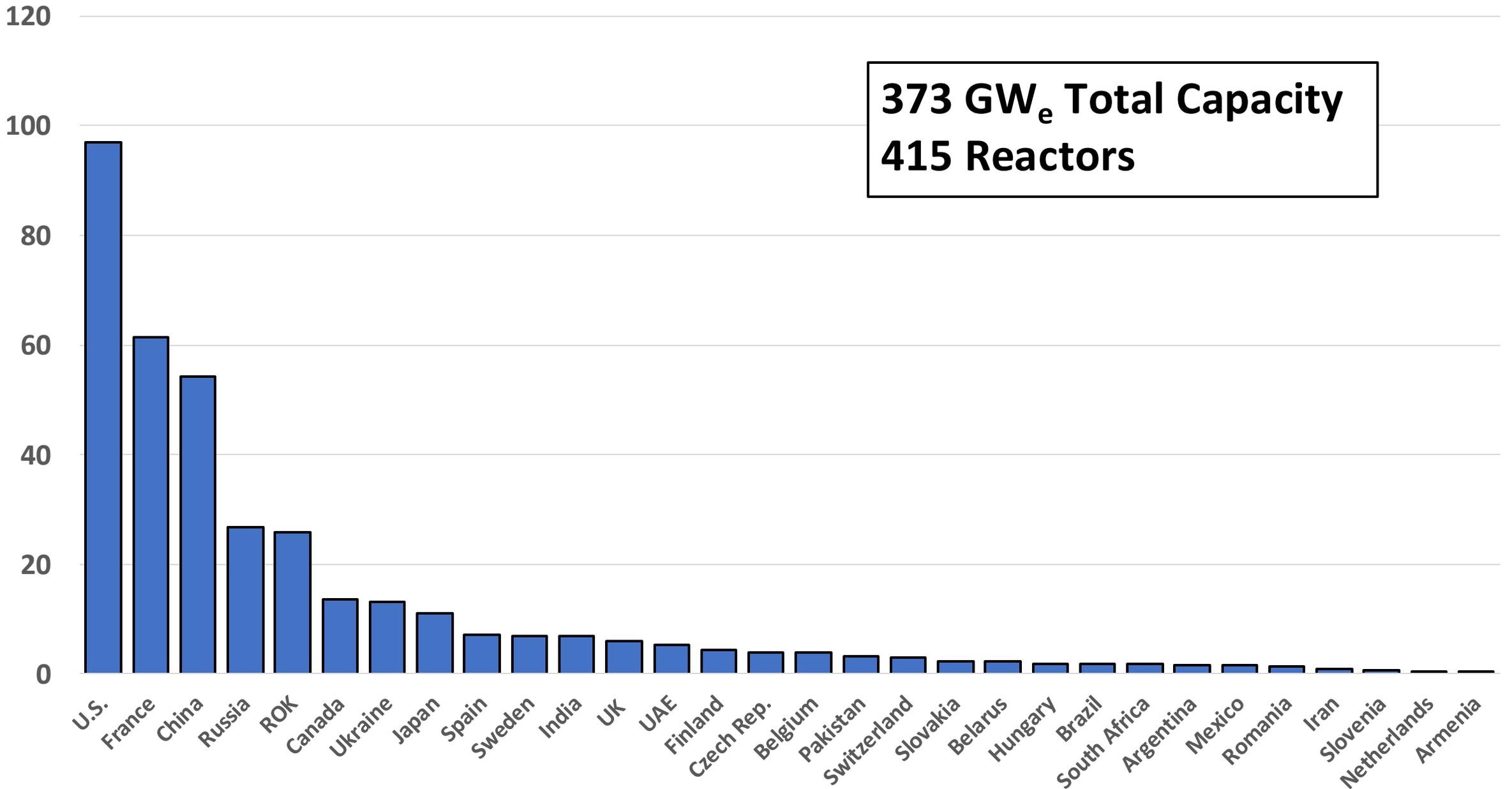
# Nuclear by the Numbers

---

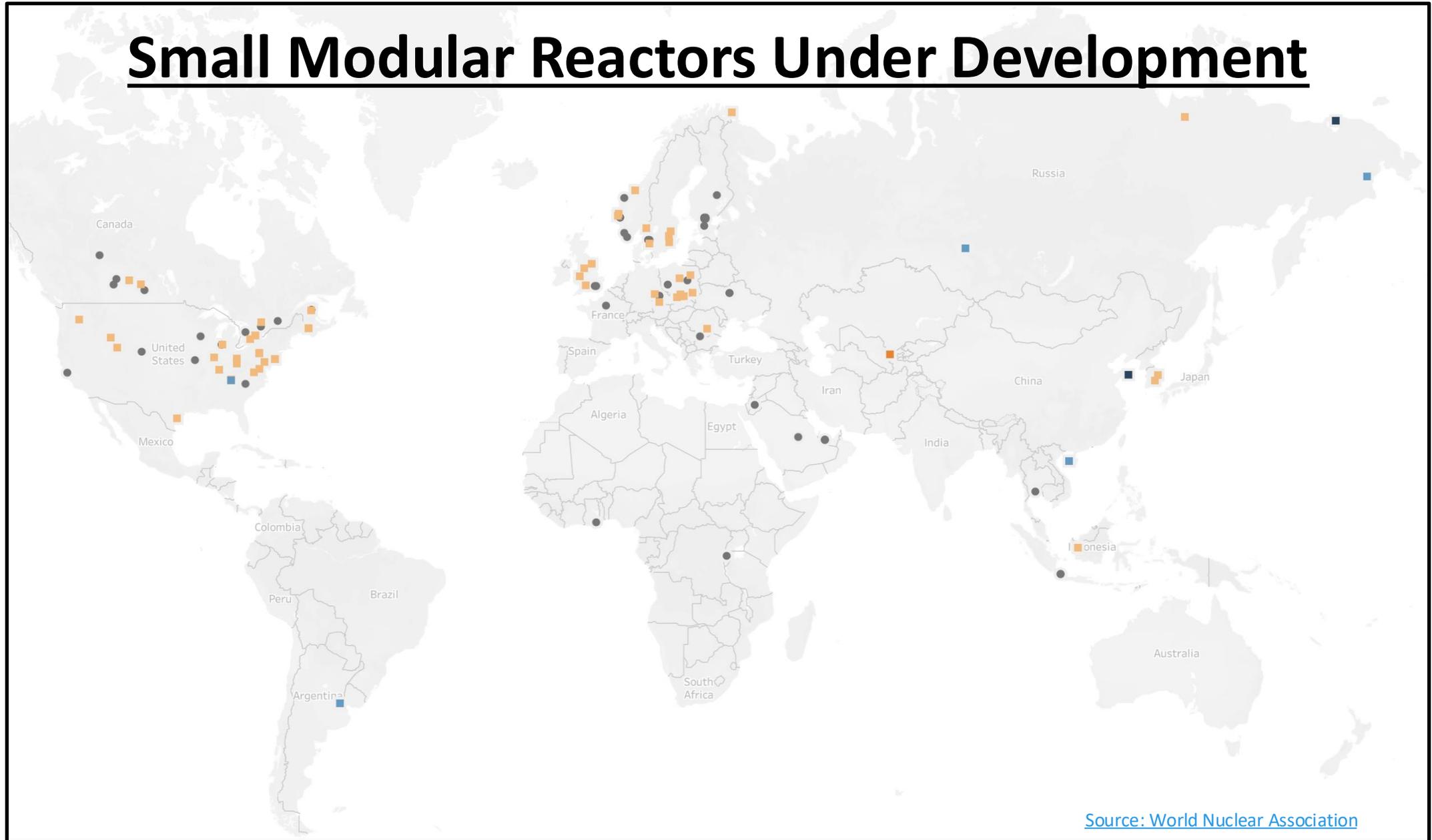
AT HOME AND RELATIVE TO COMPETITORS

# Globally: Current Nuclear Capacity (GWe)

**373 GWe Total Capacity**  
**415 Reactors**

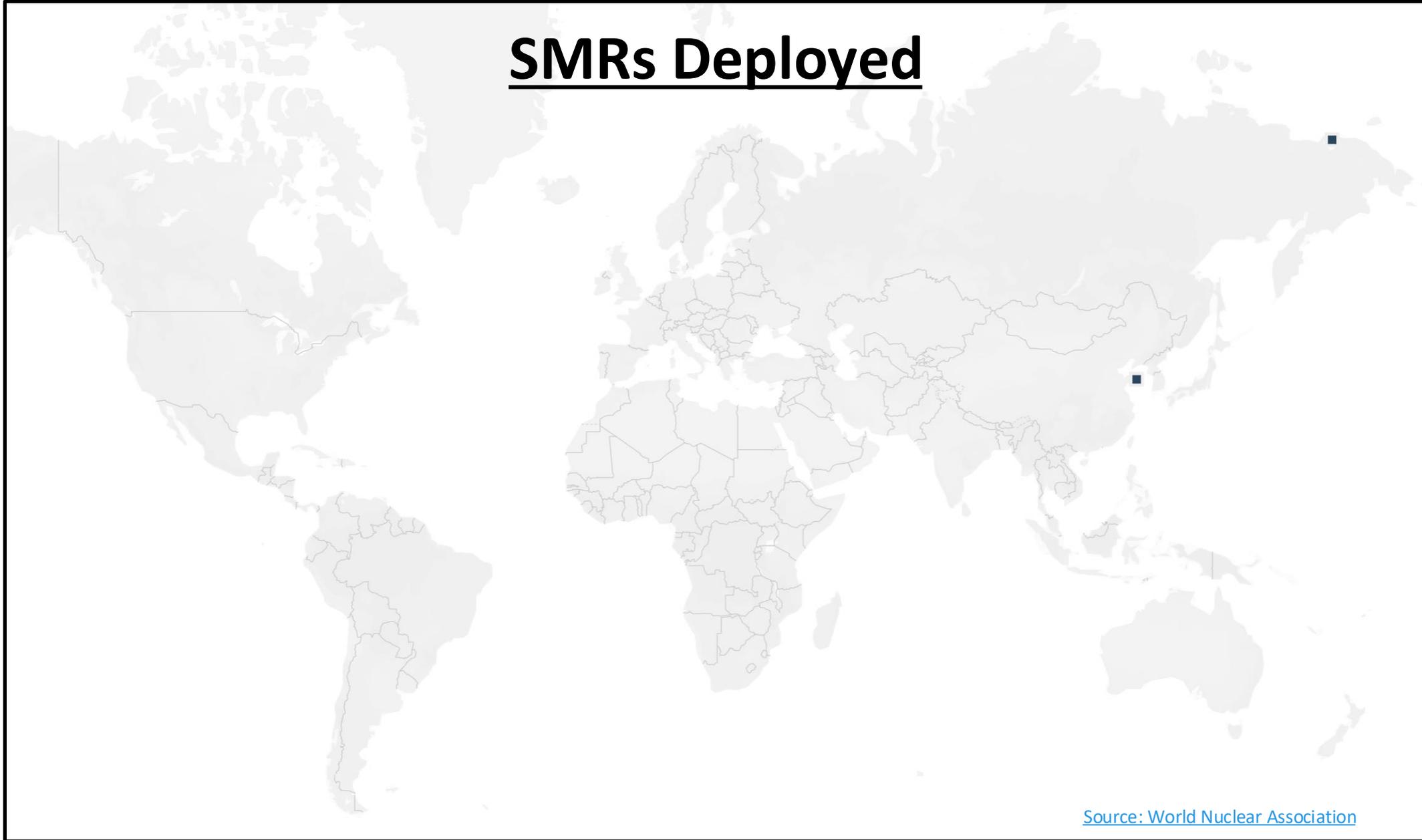


# Small Modular Reactors Under Development



Source: [World Nuclear Association](#)

# SMRs Deployed



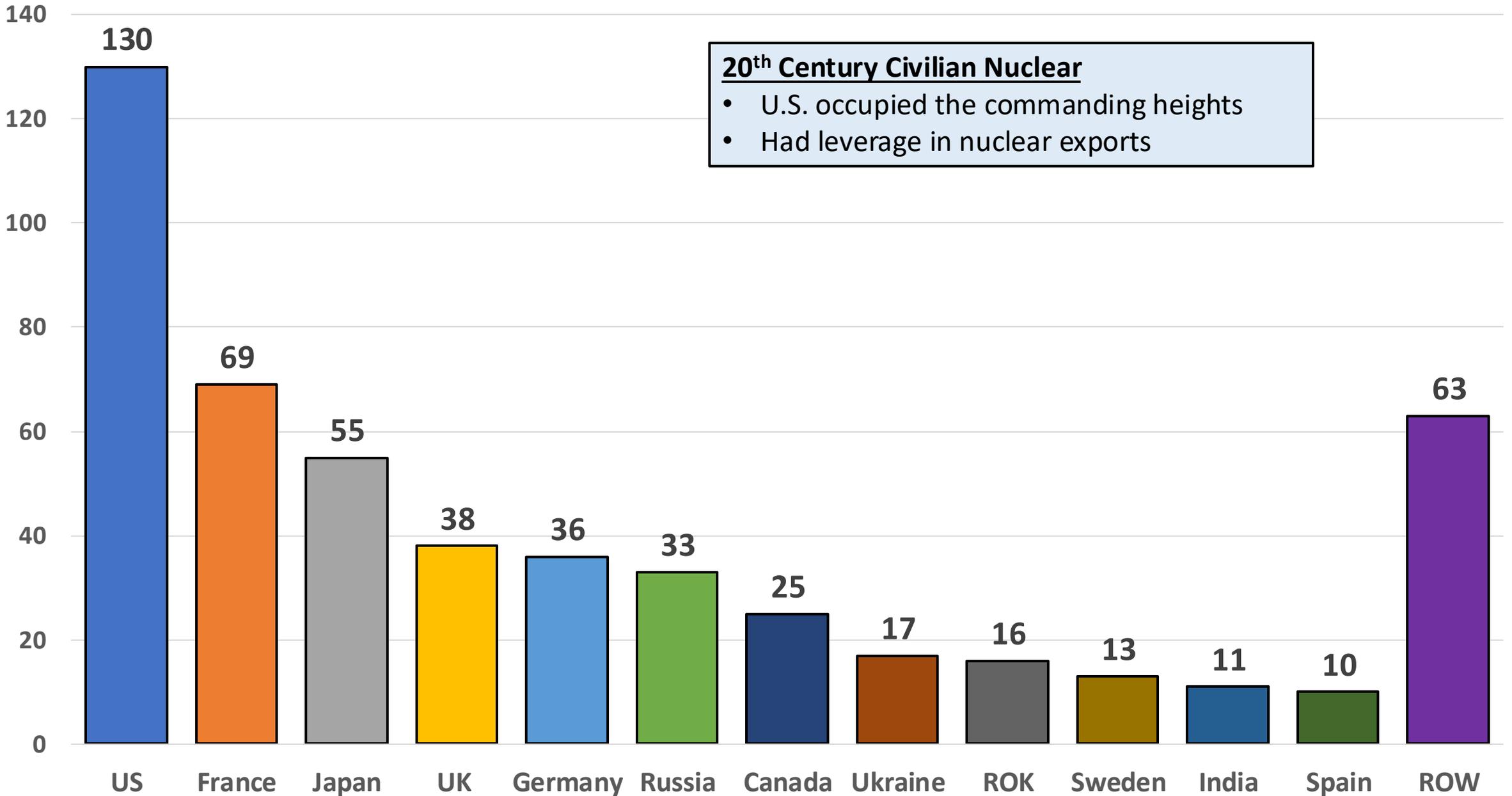
Source: [World Nuclear Association](#)

Country	Number of Reactors
U.S.	30
Russia	22
France	13
Japan	13
South Korea	9
China	8
India	4
Others	4
Canada	3
UK	3
Denmark	2
South Africa	2
Sweden	2
Argentina	1
Belgium	1
Brazil	1
Czech Republic	1
Indonesia	1
Netherlands	1
Poland	1
Switzerland	1

Global status of advanced nuclear reactors at various stages of design and development—123 total.

[Data Source IAEA ARIS](#)

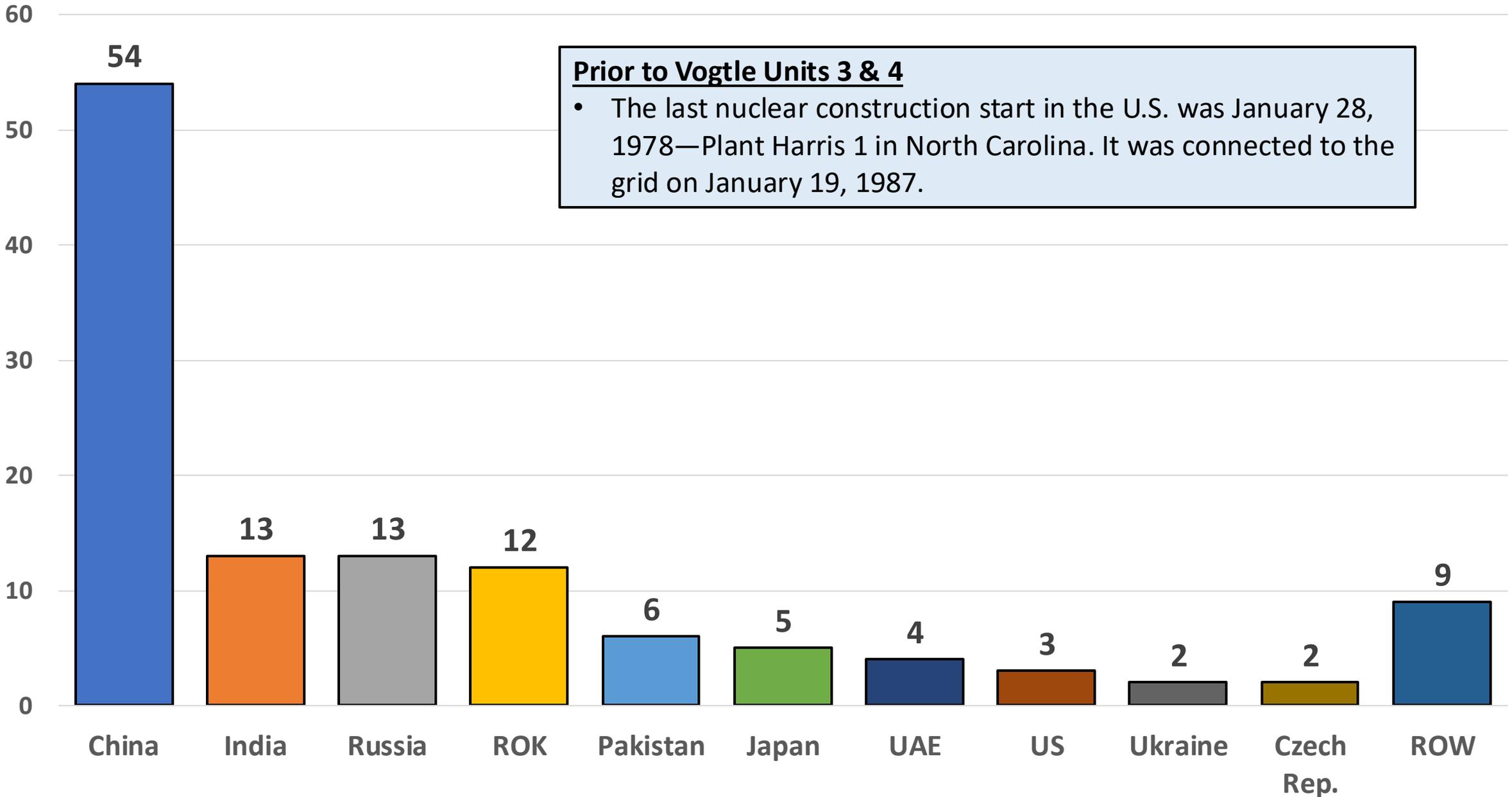
# Reactors Connected to Grid (1960-1999)



Source: IAEA; PRIS (2024);  
Data Accessed:  
03-07-2025)

# Reactors Connected to Grid & Under Construction (2000-Present)

Compiled By:  
David Gattie



# Nuclear Power in the 21<sup>st</sup> Century

Of these 185 reactors, 129 are associated with China or Russia—either by location or by reactor technology.

Number of Reactors Since 2000		
Country	Connected to Grid	Under Construction
China	54	28
India	13	7
Russia	13	4
ROK	12	2
Pakistan	6	1
Japan	5	2
UAE	4	0
US	3	0
Ukraine	2	2
Czech Rep.	2	0
Belarus	2	0
Slovakia	1	1
Brazil	1	1
Argentina	1	1
Iran	1	1
Finland	1	0
Romania	1	0
France	1	0
Egypt	0	4
Turkey	0	4
UK	0	2
Bangladesh	0	2
<b>Total</b>	<b>123</b>	<b>62</b>

Source: IAEA; Power Reactor Information System (2024)

"China is the fastest-expanding nuclear power generator in the world, underscoring the huge potential of the country's nuclear sector at a time *when traditional giants like the US are retreating*. China has an incomparable advantage in developing nuclear power — the sheer size

### Since Lin's statement:

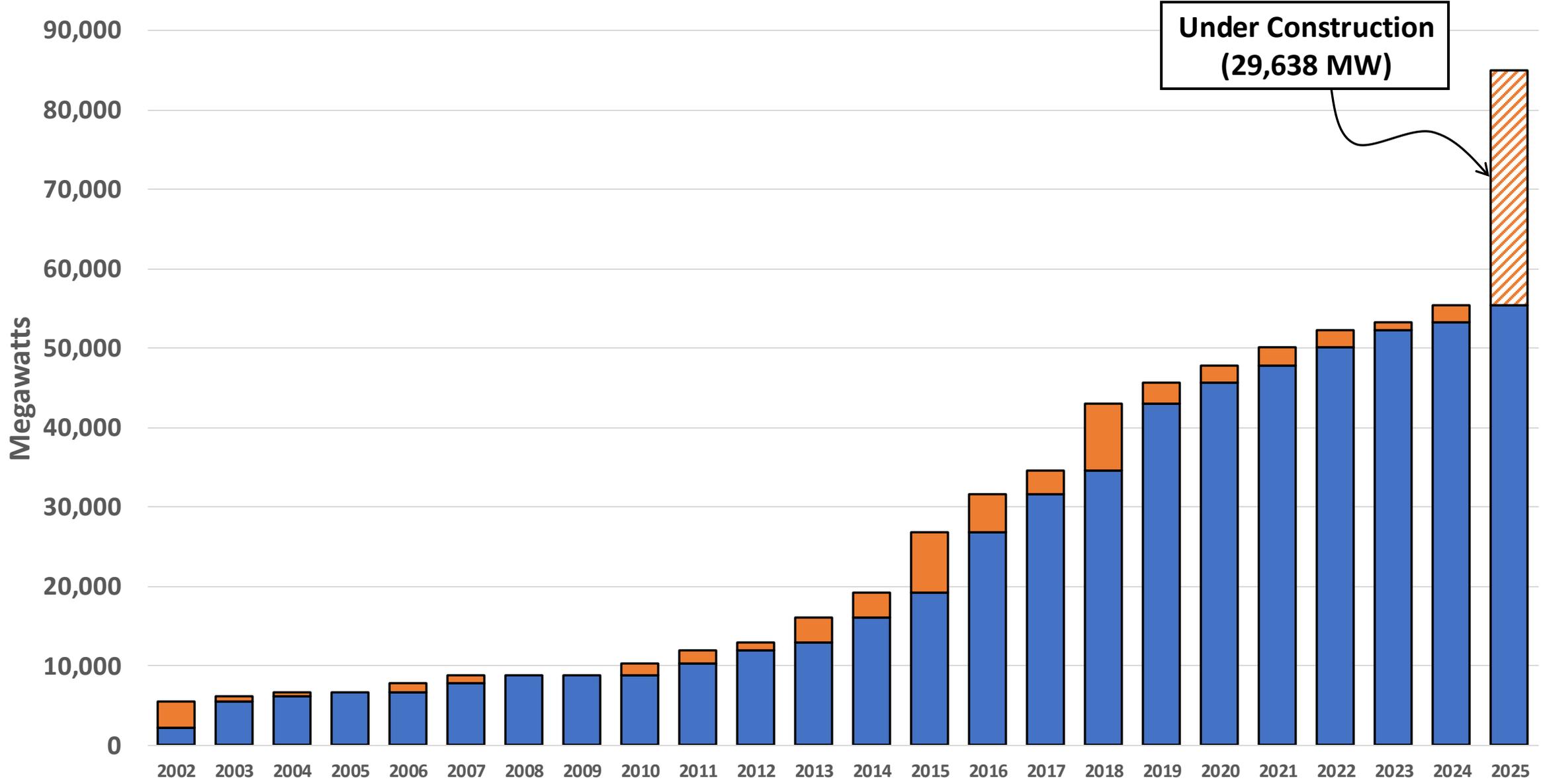
- **19 nuclear reactors connected to grid (20,752 MW)**
- **28 reactors under construction (29,638 MW)**

*efficiency.*"

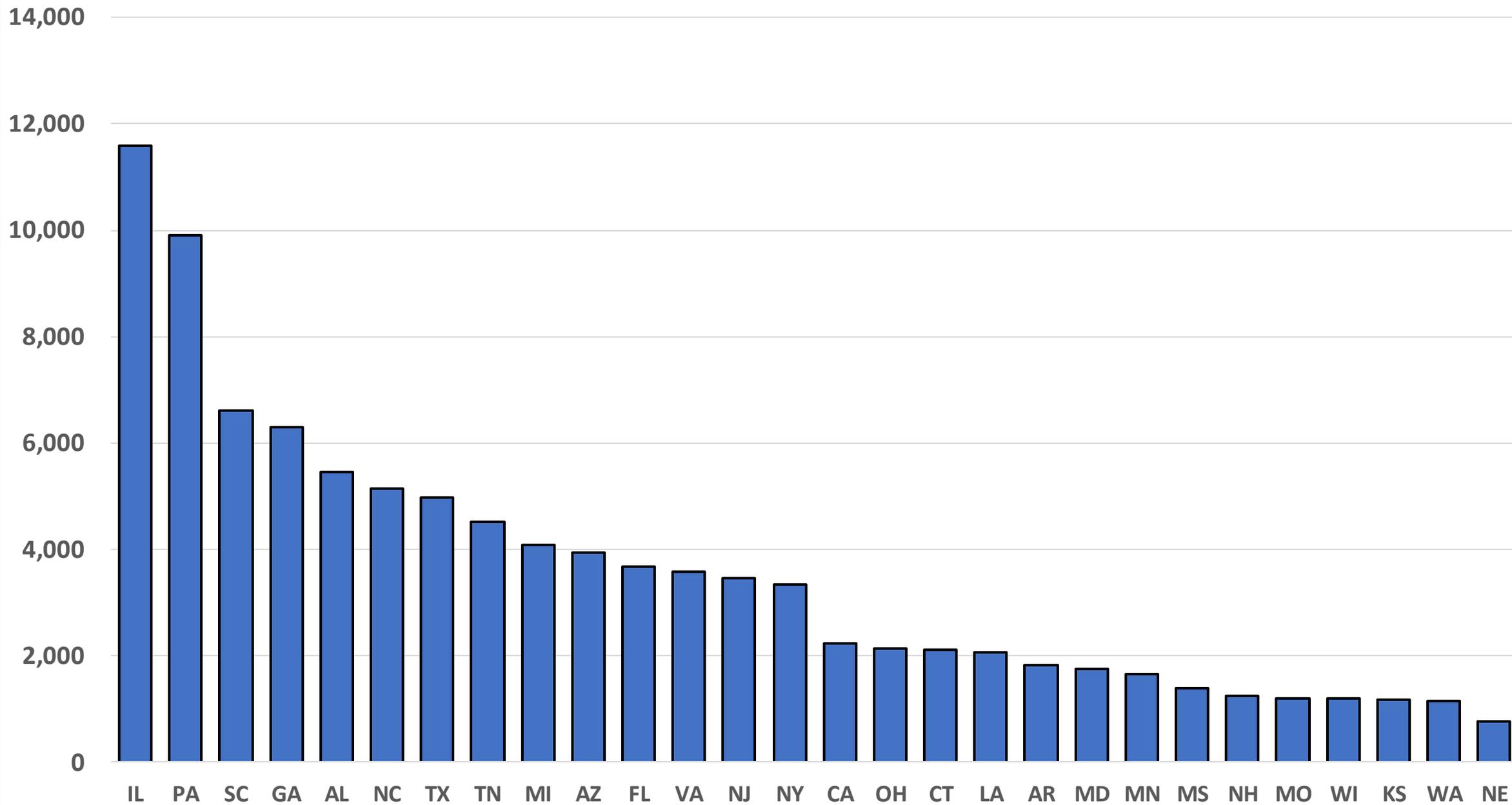
LIN BOQIANG, DIRECTOR OF THE CHINA CENTER FOR ENERGY ECONOMICS RESEARCH AT XIAMEN UNIVERSITY (*APRIL, 2018*)

# China Civilian Nuclear Trend (MW)

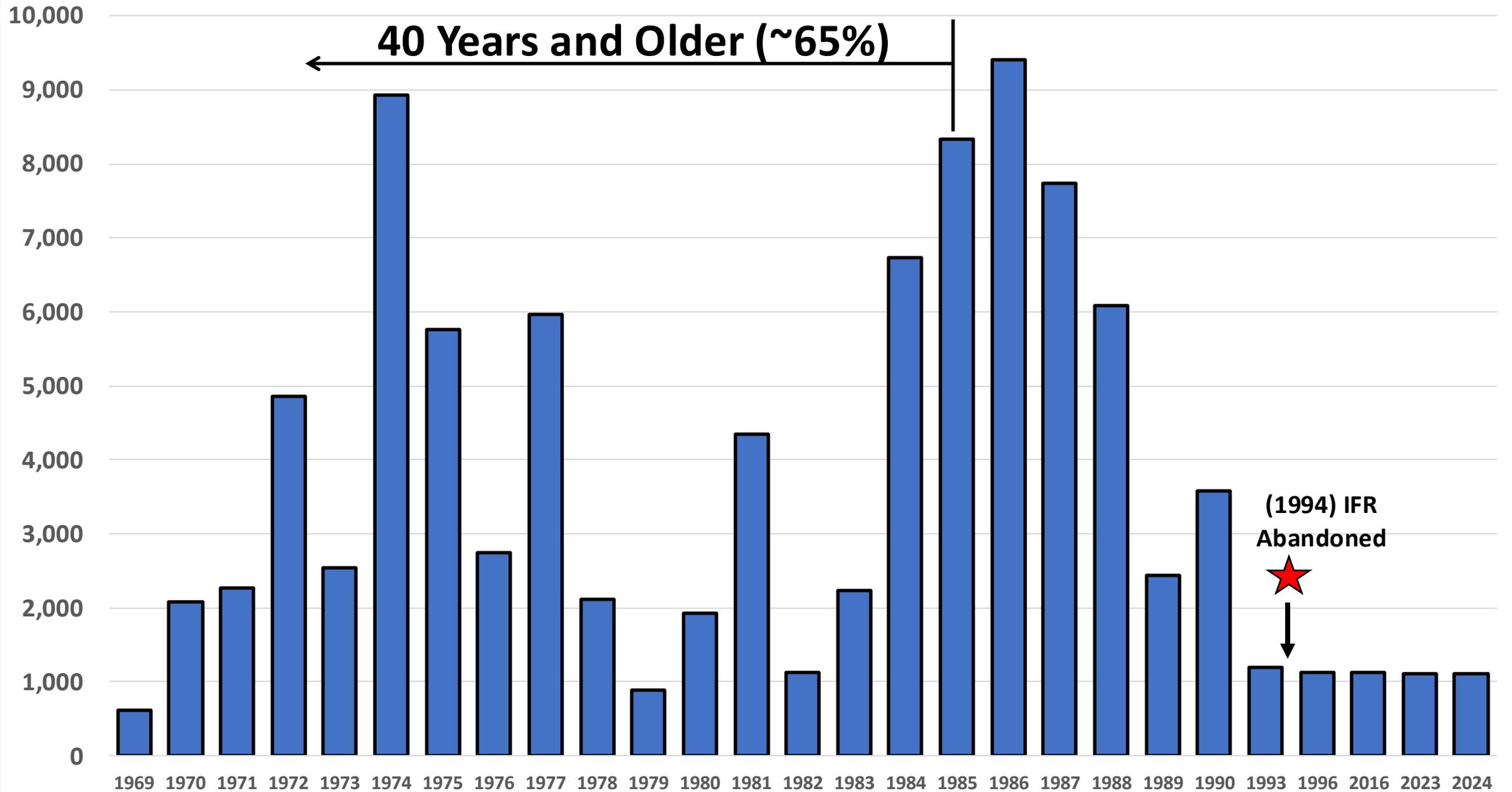
■ In Operation   ■ Capacity Added



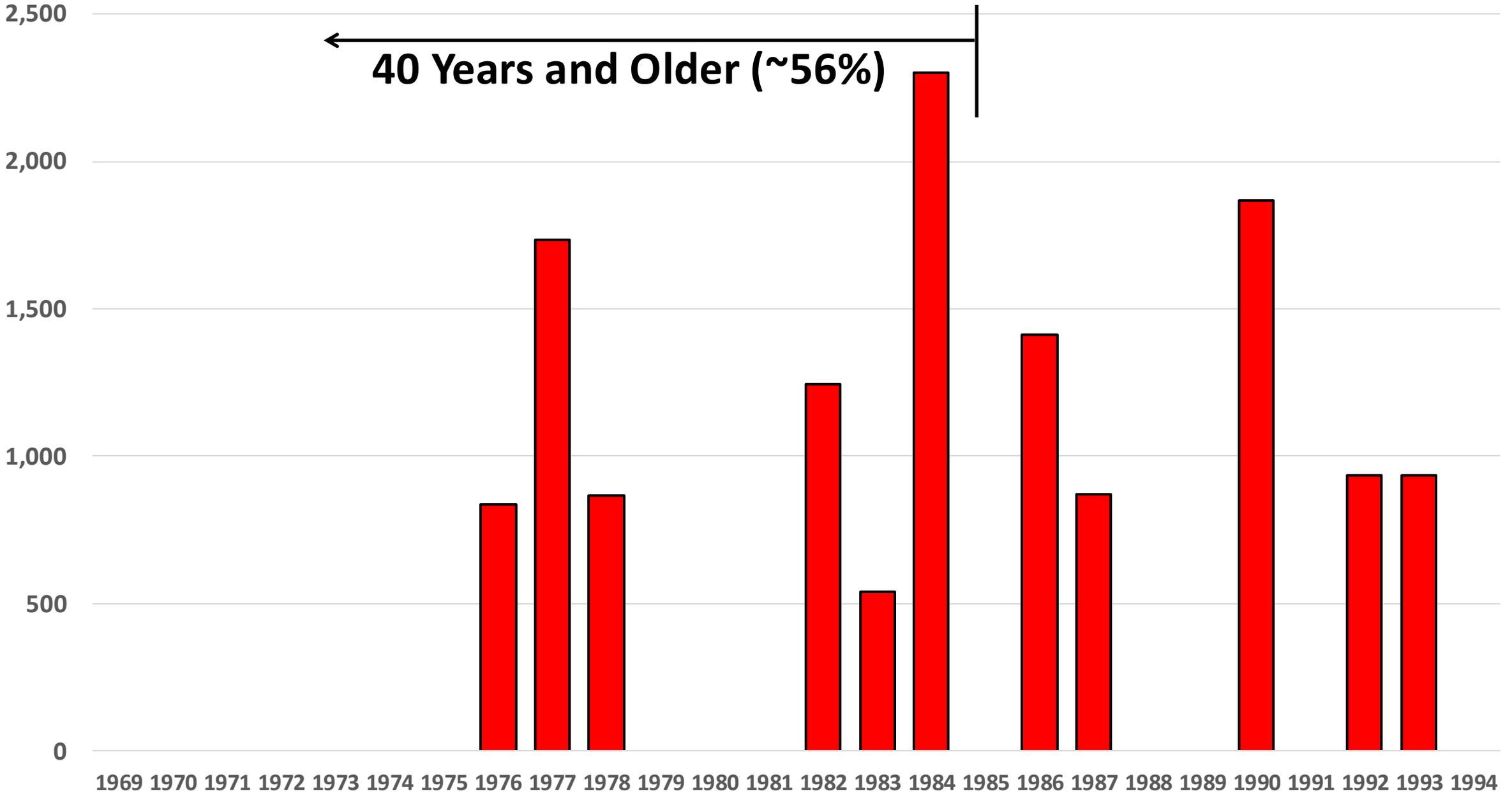
# U.S. Nuclear Capacity by State (MW)



# U.S. Nuclear Capacity by Operational Year (MW)

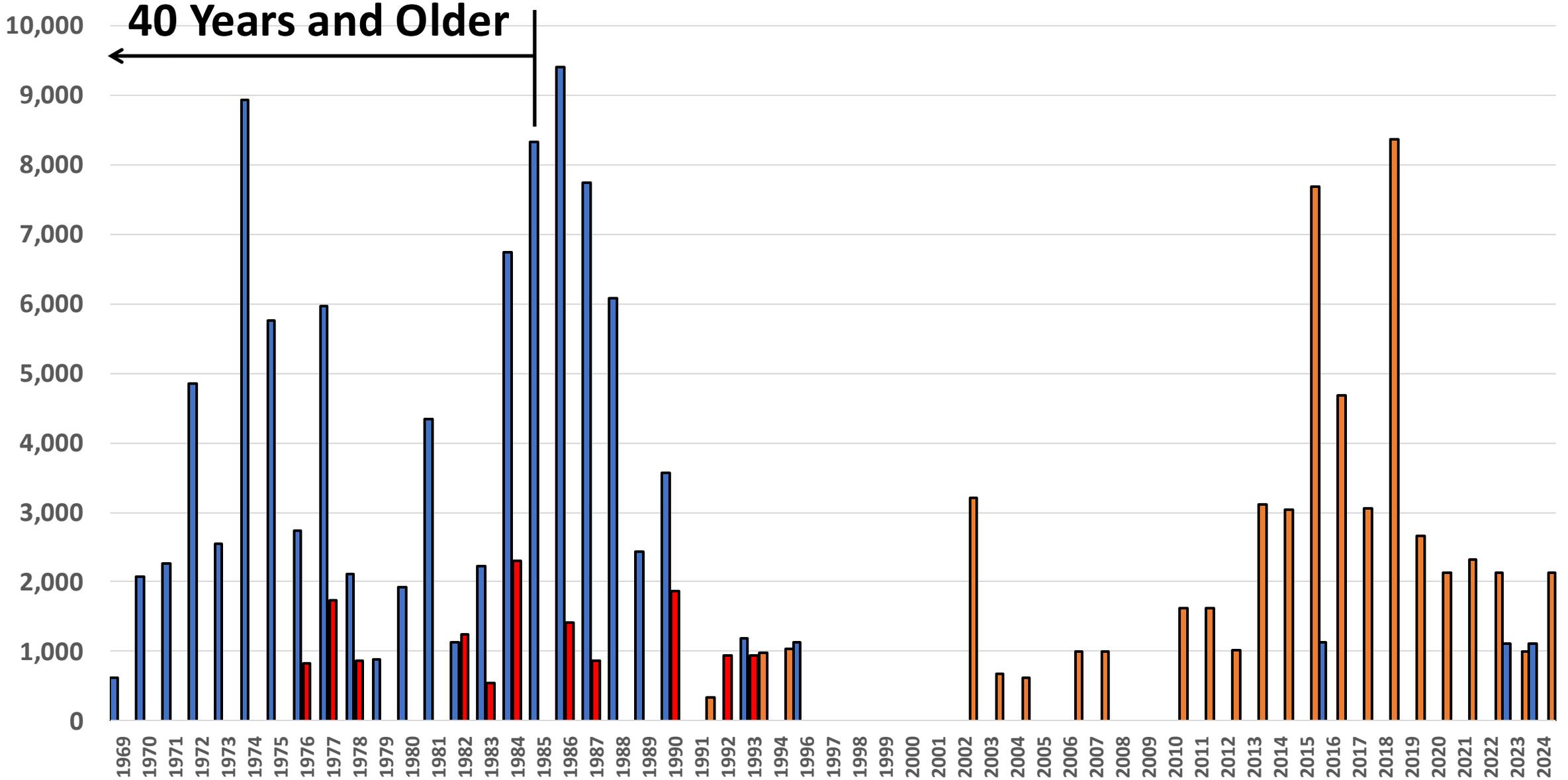


# Canada Nuclear Capacity by Operational Year (MW)



# Nuclear Capacity by Operational Year (MW)

■ U.S. ■ Canada ■ China



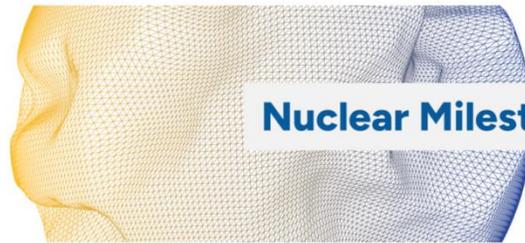
# NRC Approves NuScale Power's Updated Small Modular Reactor Design

Updated 77 megawatt-electric reactor design becomes second SMR design approved by NRC.

[Office of Nuclear Energy](#)

May 30, 2025

🕒 3 min



**Nuclear Milestones**

U.S. DEPARTMENT  
of ENERGY | Office of  
Nuclear Energy

← **Small Modular Reactor**

**Advanced Reactor** →

☰ **WyoFile**

**FEATURED TOP STORY**

## Natrium 'advanced nuclear' power plant wins Wyoming permit

*Bill Gates' owned TerraPower's project near Kemmerer still awaits approval from the U.S. Nuclear Regulatory Commission.*

 by **Dustin Bleizeffer** January 15, 2025

# Beyond the Numbers

---

THE NATIONAL SECURITY IMPERATIVE

# U.S. National Security

---

- America's capacity to **defend** against and **deter** any and all threats to its citizens, its freedoms and liberties, its economy, its institutions and its government
- A core measure of America's capacity to provide and sustain national security is **having competitive advantage relative to nations** that pose a threat—multiple advantages:
  - Economic, natural resources, **energy**, military, technological, diplomatic, geopolitical
  - A deep, diverse **industrial base**
  - A flexible, reliable, resilient **power grid**

# America's Special Relationship With Nuclear Power

---

*“The riven atom, uncontrolled, can be only a growing menace to us all, and there can be no final safety short of full control throughout the world. Nor can we hope to realize the vast potential wealth of atomic energy until it is disarmed and rendered harmless. **Upon us, as the people who first harnessed and made use of this force, there rests a grave and continuing responsibility for leadership in turning it toward life, not death.**”*

([Henry Stimson](#), Secretary of War, 1940-1945)

# The Enduring First Principles of U.S. Nuclear Power Policy

*(NSC Report 5507/2: Peaceful Uses of Atomic Energy, 1955)*

---

- Maintaining U.S. leadership in the field, particularly in the development and application of atomic power. [*Soft Power*]
- Using such U.S. leadership to promote cohesion within the free world and to forestall successful Soviet exploitation of the peaceful uses of atomic energy to attract the allegiance of the uncommitted peoples of the world. [*Soft Power*]
- Increasing progress in developing and applying the peaceful uses of atomic energy in free nations abroad. [*Soft Power*]
- Assuring continued U.S. access to foreign uranium and thorium supplies.
- Preventing the diversion to non-peaceful uses of any fissionable materials provided to other countries.

*“Are the aims of our foreign policy consistent with the aims of our domestic policy as far as nuclear power is concerned.*

*Consequently, we have a specific obligation to back up our foreign policy gestures in this field with growing technological strength. To do so we must maintain a vigorous program of reactor development.*

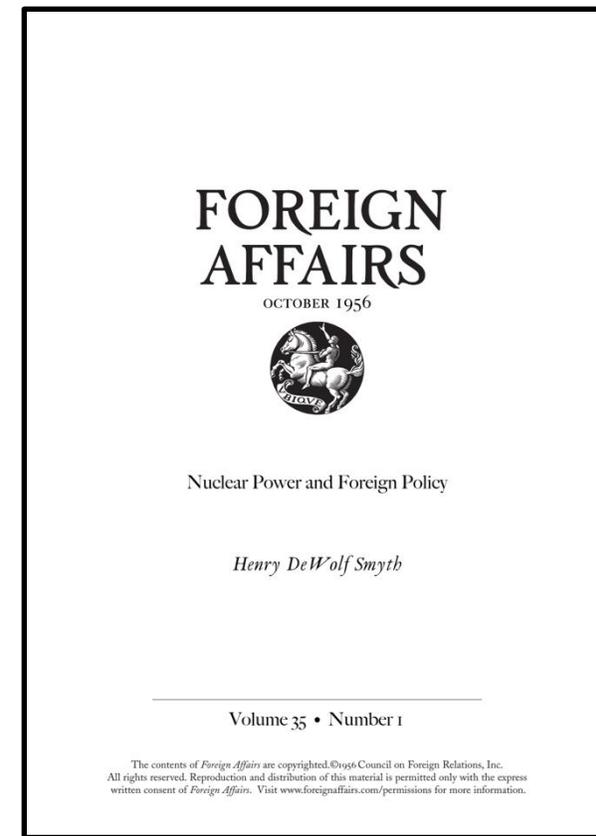
*How can we offer to build reactors abroad without building enough reactors here to know what we are doing? How can we expect to send materials and helpful information abroad if we let our technology fall behind?”*

Henry DeWolf Smyth

Manhattan Project, Atomic Energy Commission, IAEA U.S. Ambassador

Author of The Smyth Report on “Atomic Energy for Military Purposes”:  
<https://www.orau.org/ptp/pdf/smythreport.pdf>

(NUCLEAR POWER AND FOREIGN POLICY; FOREIGN AFFAIRS, 1956)



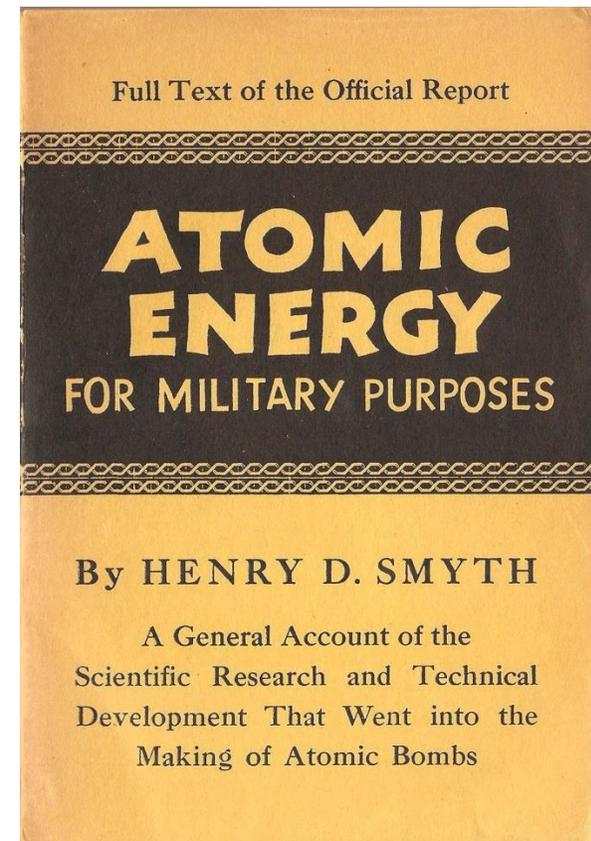
*“I have recalled this history to emphasize the fact that decisions about the peacetime development of nuclear energy have not, cannot and probably should not be made on the basis of strict economic realism”*

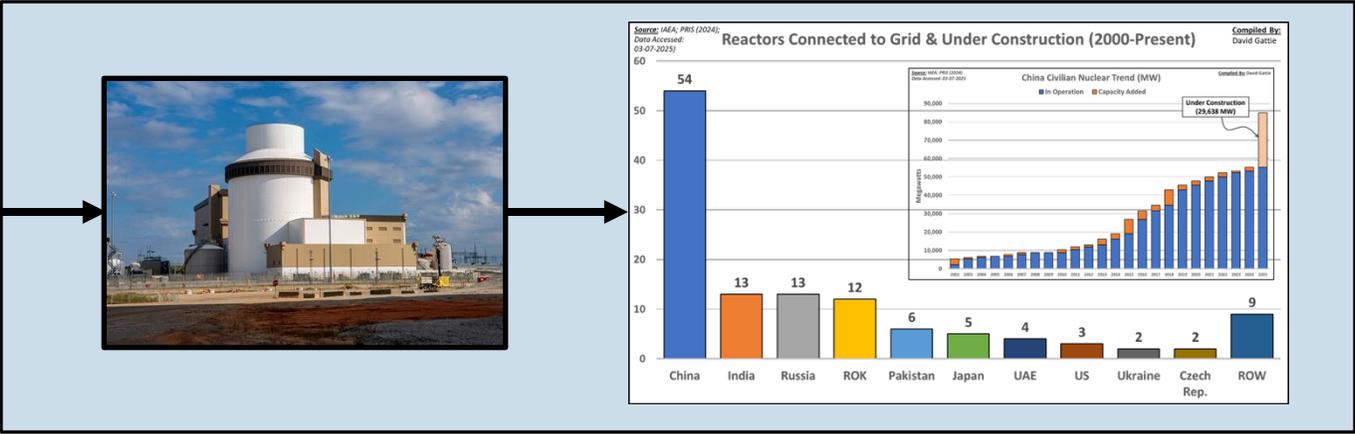
*(Nuclear Power and Foreign Policy; Foreign Affairs, 1956)*

Henry DeWolf Smyth (1956)

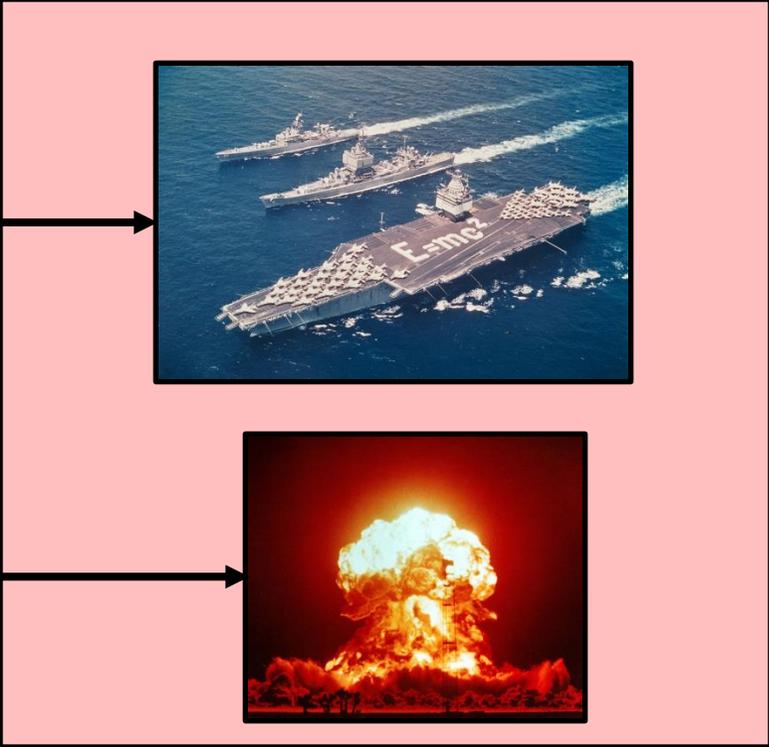
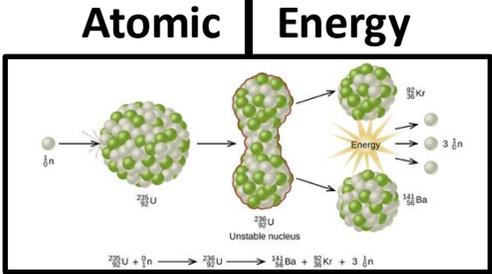
Manhattan Project, Atomic Energy Commission, IAEA U.S.  
Ambassador

Author of The Smyth Report on “Atomic Energy for Military Purposes”: <https://www.orau.org/ptp/pdf/smythreport.pdf>





**Soft Power**



**Hard Power**

From 1955 to 2025

---

# OTR Freight



<https://www.fleetequipmentmag.com/us-bank-freight-payment-index-shipments/>

# Mining Oil, Natural Gas, Coal, Uranium, Minerals, Metals



<https://resource-erectors.com/career-blog/integrated-operations-management-in-minerals-metals-and-mining/>

# Natural Gas-Fired Power Plants



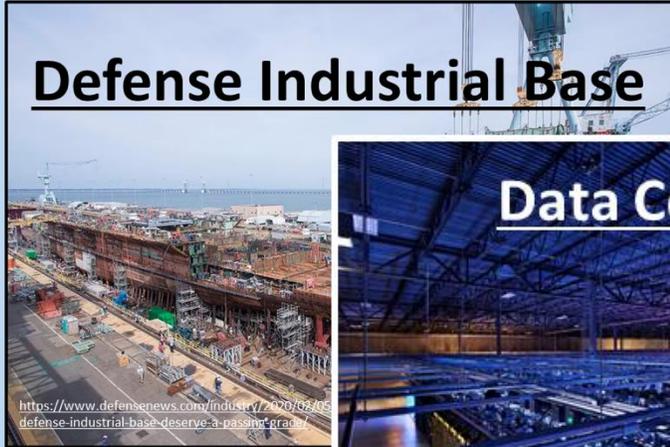
<https://www.enr.com/special-report/energy-industry/feathering-plants/mockingbird-plant.html>

# Nuclear Power Plants



<https://www.assaiairpower.com/news/energy/industry/operations-plants/plant-worship.html>

# Defense Industrial Base



<https://www.defensenews.com/industry/2020/03/05/defense-industrial-base-deserve-a-passing-grade/>

# Electric Power Grid



<https://www.eia.gov/energy-topics/electric-power-grid.html>

# Rail & Shipping



<https://www.cato.org/publications/policy-analysis/tunes-act-burden-america-can-no-longer-bear>

# Agriculture & Food Production



<https://www.wsi.com/articles/us-farmers-who-once-fed-the-world-overtaken-by-new-world-powers-1492700024>

# Data Centers



Photo: MIT Technology Review

# Cement Production



<https://www.britannica.com/technology/cement-building-material/Extraction-and-processing>

# Coal-Fired Power Plants



<https://www.georgiapower.com/company/environmental-compliance/plant-list/plant-bowen.html>

# Chemical Production



<https://www.aiche.org/connected/2018/07/introduction-advanced-manufacturing-chemical-engineers>

# Iron and Steel Forging



<https://www.steel.org/steel-technology/steel-production/>

# Oil and Natural Gas Refining



<https://www.slb.com/renewable-energy/2022/01/22/utah-refineries-now-produce/>

# Data Centers & AI Power Demand & National Security



Photo Credit: Utility Dive

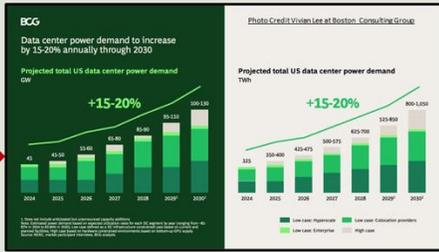


Photo Credit: Vivian Lee at Boston Consulting Group



Photo Credit: ArmyUPress

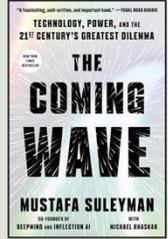
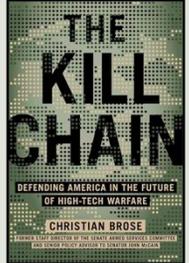
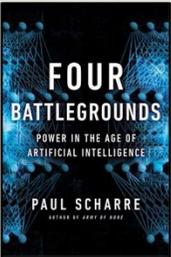


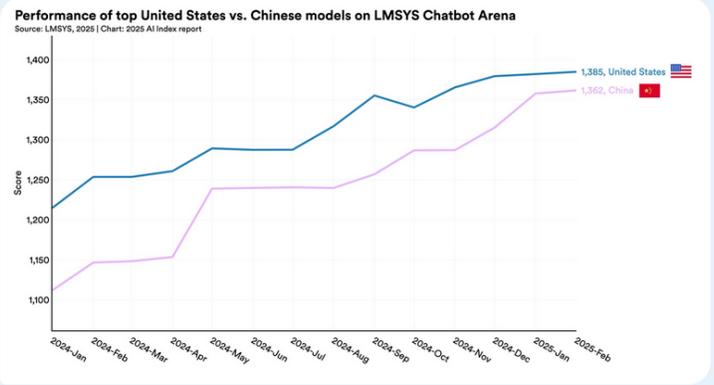
Photo Credit: ArmyUPress



## 4. The U.S. still leads in producing top AI models—but China is closing the performance gap.

In 2024, U.S.-based institutions produced 40 notable AI models, significantly outpacing China's 15 and Europe's three. While the U.S. maintains its lead in quantity, Chinese models have rapidly closed the quality gap: performance differences on major benchmarks such as MMLU and HumanEval shrank from double digits in 2023 to near parity in 2024. Meanwhile, China continues to lead in AI publications and patents. At the same time, model development is increasingly global, with notable launches from regions such as the Middle East, Latin America, and Southeast Asia.

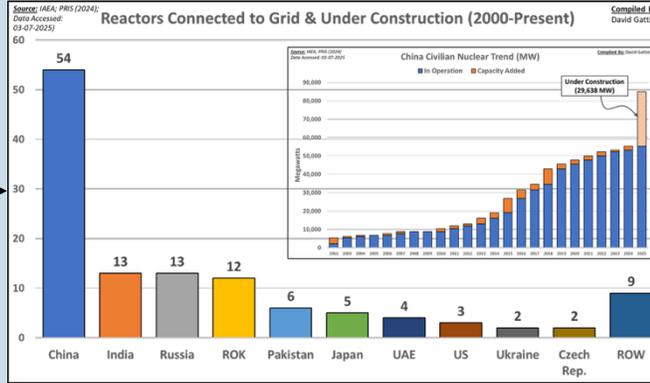
Source: <https://hai.stanford.edu/ai-index/2025-ai-index-report>



*In the national security context, this will primarily mean improving how, and how fast, militaries and intelligence agencies can use data and make decisions. AI will enable better threat detection, giving humans more time to react; let militaries conduct more detailed and realistic planning exercises; shorten crisis response times; and streamline essential back-end processes like finance and logistics.*

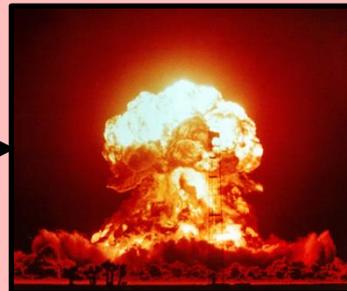
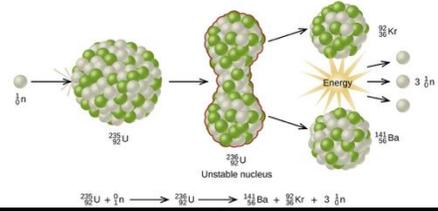
Source: Foreign Affairs. Link: [Here](#)

# 1955



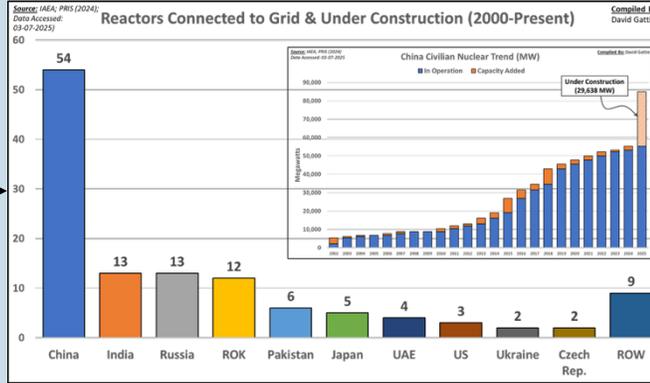
## Soft Power

### Atomic Energy



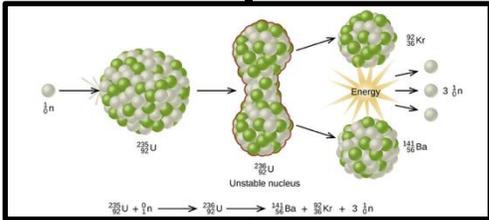
## Hard Power

# 2025



## Soft Power

### Atomic Energy



## Hard Power



# The Future of Nuclear Power?

---

# The Recent U.S. Energy Policy Shift

## Energy Transition

- Executive Order (January 27, 2021)
  - *Tackling the Climate Crisis at Home and Abroad*
  - *“Putting the **Climate Crisis at the Center of United States Foreign Policy and National Security**”*
- America’s National Security Strategy (October 12, 2022)
  - *“Climate” is defined as “the greatest and potentially existential for all nations”*
  - *“Combatting the climate crisis, bolstering our energy security, and **hastening the clean energy transition is integral to our industrial strategy**, economic growth, and security. Events like Russia’s war of aggression against Ukraine have made clear the urgent need to **accelerate the transition away from fossil fuels**”*

## Energy Dominance

- Executive Order (January 20, 2025)
  - *“Unleashing American Energy”*
  - *To **encourage energy exploration and production** on Federal lands and waters, including on the Outer Continental Shelf, in order to meet the needs of our citizens and **solidify the United States as a global energy leader long into the future***
  - *To protect the United States’s **economic and national security and military preparedness by ensuring that an abundant supply of reliable energy is readily accessible** in every State and territory of the Nation*

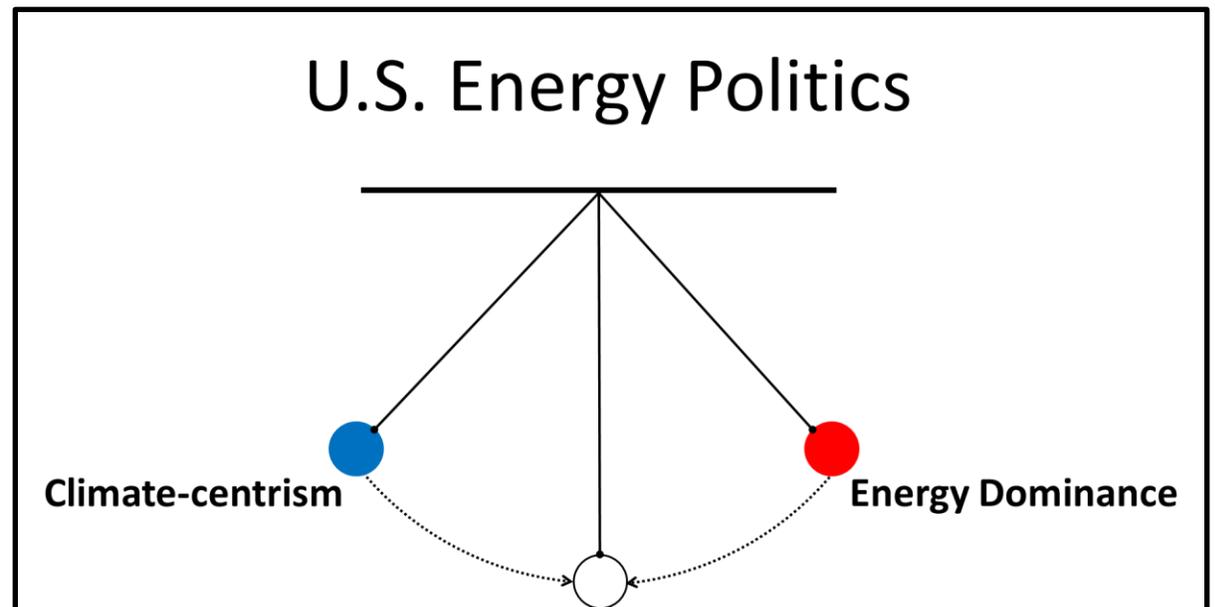
***While the re-election of Donald Trump will reorient U.S. energy policy away from climate change and toward energy dominance, it won't end efforts to restructure the U.S. economy around carbon reduction***

## Energy Dominance

- Executive Order (January 20, 2025)
  - “Unleashing American Energy”
  - To **encourage energy exploration and production** on Federal lands and waters, including on the Outer Continental Shelf, in order to meet the needs of our citizens and solidify the United States as a **global energy leader long into the future**
  - To protect the United States’s **economic and national security and military preparedness by ensuring that an abundant supply of reliable energy is readily accessible** in every State and territory of the Nation

## Energy ?????

- Executive Order (January 20, 2029)
  - Which way will the U.S. energy policy pendulum swing?



# The Future of Nuclear Power?

---

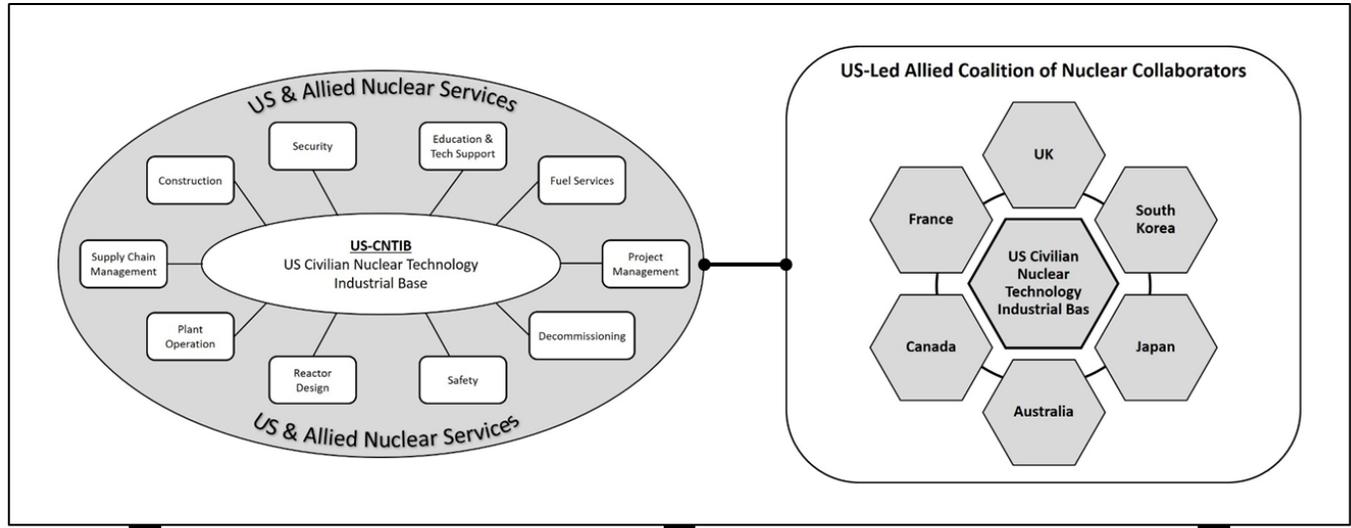
*This isn't a technology problem*

- Time
- Near-term cost relative to other resources and tech
- Elections
- Climate-centric policy with nuclear getting scraps
- Fear and timidity
- Dismissal/neglect of the national security imperative

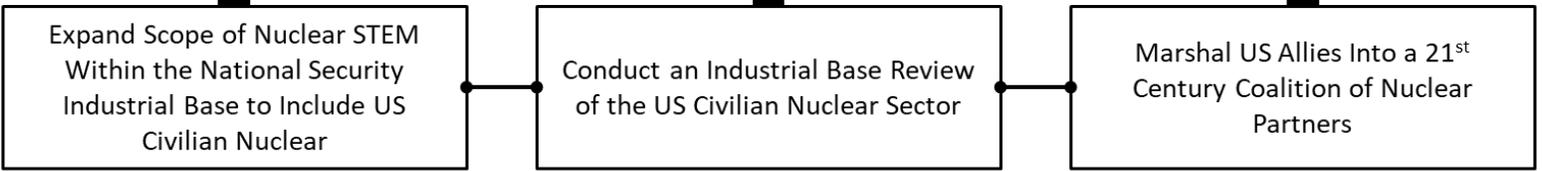
# An Allied Approach

[Gattie, Massey: Strategic Studies Quarterly](#)  
[Gattie, Hewitt: Energies](#)

Global Alliance



Core Actions



*This will shift the purview of nuclear power from one that is predominantly focused on nuclear as a transactional commodity issue at the domestic level to one of a strategic geopolitical issue at the international level. This transactional-to-geostrategic shift will project an allied show-of-force that democratic nations are willing and capable of responding to the challenge of 21<sup>st</sup> century great power competition for superiority and dominance in nuclear technology and services.*

*“Upon us, as the people who first harnessed and made use of this force, there rests a grave and continuing responsibility for leadership in turning it toward life, not death.”*

## THE NATIONAL INTEREST



Restoring America's Relationship with Nuclear Power  
as a National Security Priority

June 4, 2025 | By: David Gattie

## Final Contention

The U.S. must prioritize the national security imperative of civilian nuclear power to regain competitive advantage over geopolitical rivals and restore America's special relationship with nuclear power.

*Nuclear is not just another energy commodity*

# University of Georgia Energy Security Studies Program (ESSP)



A collaboration between the College of Engineering (CENGR) and School of Public & International Affairs (SPIA), administered by the Center for International Trade and Security (CITS).

## Purpose

- Critically analyze US energy and climate policies based on energy resource realities, technology feasibilities, and emerging geopolitical challenges
- Prioritize national security and domestic energy implications of US energy and climate policies

## Importance

- Energy resource and technology diversity has fueled America's rise as the world's largest economic and military power, underpinning its highly diversified industrial base, electric power sector, and competitive advantage
- An energy transition away from conventional resources will lead to a restructuring of America's economy and industrial base with implications for:
  - Domestic energy security
  - The electric power sector and grid reliability
  - America's competitive advantage relative to 21st century great power competitors



Energy Resource Realities  
Technology Feasibilities  
Geopolitical Challenges

## Goal

Answer the central questions of:

- What are the security implications of a U.S. transition to a low- or zero-carbon economy?
- With its industrial base and electric power sector restructured around low- and zero-carbon energy to address global climate change, how will this impact U.S. capacity to retain its economic, military, industrial, and geopolitical advantages relative to 21st century strategic competitors whose intentions are to marginalize and displace the U.S. in international affairs?

## Tangible Impact

- Conduct data driven research
- Translate research into consumable outputs for policymakers, industry professionals, and the general public (e.g. podcasts, reports, infographics)
- Network with energy industry professionals, decision makers, and applied researchers at the federal, state, and local levels
- Convene regular conferences, workshops, and summits to engage state and national level policymakers in energy resource realities, energy technology feasibilities and emerging geopolitical challenges of 21st century great power competition

## ESSP Executive Leadership Team

- Dr. Justin Conrad, CITS Gary K. Bertsch Director, [justin.conrad@uga.edu](mailto:justin.conrad@uga.edu)
- Dr. David Gattie, Associate Professor of Engineering; CITS Sr. Fellow, [dgattie@uga.edu](mailto:dgattie@uga.edu)
- Dr. Josh Massey, CITS Senior Research Associate, [jnmassey@uga.edu](mailto:jnmassey@uga.edu)

## Support

- Financial gifts to ESSP support:
  - Education, Research, Outreach
  - Applied research opportunities for undergraduate and graduate students
- For information on how to support this initiative, contact:
  - Jan Blaine, Senior Director of Development (CENGR), [jblaine@uga.edu](mailto:jblaine@uga.edu)
  - Sarah Baines, Senior Director of Development (SPIA), [sbaines@uga.edu](mailto:sbaines@uga.edu)

Scan here to learn more:



# Thank You

---

# Additional References

---

- Gattie, D. 2025. Restoring America’s Relationship with Nuclear Power as a National Security Priority. *The National Interest*, June 4, 2025. [\[Link to Article\]](#)
- Gattie, D. 2025. U.S. Energy Policy: Prioritizing National Power and Competitive Advantage. *NAPE Magazine*, p. 59, Spring Issue. [Link to Article](#)
- Gattie, D. 2025. U.S. Energy Strategy: Prioritizing Peace Through Strength. *The National Interest*. January 29, 2025. [Link to Article](#)
- Gattie, D. and Duncan, C. 2024. US-China EV Battery Competition and the Role of South Korea. *Energy Innovation Reform Project US-Korea Energy Series, Working Paper No.4*. Series editor, Paul J. Saunders. [\[Link to Paper\]](#)
- Gattie, D. 2024. Competitive Advantage as a National Security Objective for US Civilian Nuclear Power Policy. *Georgetown Journal of International Affairs*. June 3, 2024. [\[Link to Article\]](#)
- Gattie, D. 2023. U.S. House Energy and Commerce Committee, Energy, Climate, and Grid Security Subcommittee Hearing: “America’s Future: Leading a New Era of Energy Dominance, Security, and Environmental Stewardship”. December 5, 2023. [Link to Testimony](#)
- Gattie D, Hewitt M. National Security as a Value-Added Proposition for Advanced Nuclear Reactors: A U.S. Focus. *Energies*. 2023; 16(17):6162. <https://doi.org/10.3390/en16176162>
- Gattie, D. 2023. Georgia’s Reality-Based Approach to Energy and Economic Growth. *James Magazine*. May/June Issue, pp. 57-58. [Link to Article](#)
- Gattie, D. 2023. US hyperfocus on decarbonization creates geopolitical blind spots. *The Hill*. March 7, 2023. [Link to Article](#)
- Gattie, D. 2023. National interests are best served by an all-of-the-above energy approach. *Ohio Cooperative Living*. February 1, 2023. [Link to Article](#)
- Gattie, D. 2023. U.S. House Energy and Commerce Committee, Energy Security Roundtable, January 26, 2023. [Link to Testimony](#)

# Additional References

---

- Gattie, D and Hewitt, M. 2022. The U.S. Can't Lose the Global Nuclear Energy Race. *The National Interest*. December 17, 2022. [Link to Article](#).
- Gattie, D. 2022. Georgia's Future of Prioritizing Energy Security and Reliability. *James Magazine*, September/October Issue, pp. 27-29. [Link to Article](#)
- Gattie, D, and Hewitt, M. 2022. Security-centric and climate-inclusive: Energy policy for an era of great power politics. *Force Distance Times*. June 23, 2022. [Link to Article](#)
- Gattie, D, and Hewitt, M. 2022. Energy Sovereignty Will Be the Westphalian Principle of the 21<sup>st</sup> Century. *The National Interest*. February 22, 2022. ([Link to Article](#))
- Gattie, DK, Conrad, J, and Massey, J. 2022. UGA Energy Outlook. [Outlook Description](#) [[Link to Outlook Presentation](#)]
- McFarlane, R, and Gattie D. 2021. Nuclear Affairs. *The National Interest*, (176): 69-75. November/December Issue. [Link to Article](#)
- Gattie, DK. 2021. South Korea's Summit Solution Dreams and Zero Carbon Realities. *The National Interest*. March 30, 2021. ([Link to article](#))
- Gattie, DK. 2021. President Biden's Executive Order on Climate Change: Implications for the US Industrial Base. Expert Brief for *Global America Business Institute*. February 24, 2021. [[Link to Brief](#)]
- Gattie DK and Massey JNK. 2020. 21<sup>st</sup> Century US Nuclear Power Policy: A National Security Imperative. *Strategic Studies Quarterly*. [[Link to Paper](#)]
- Gattie, DK. 2020. US energy, climate and nuclear power policy in the 21<sup>st</sup> century: The primacy of national security. *The Electricity Journal*, 33(1) 106690. [[Link to Paper](#)]
- Gattie, DK. 2020. House climate plan needs global and national security context. *The Hill*. July 9, 2020. [[Article Link](#)]
- Gattie, DK. 2019. Testimony Before the Energy and Commerce Subcommittee on Environment and Climate Change. December 5, 2019 [[Link to Testimony](#)]
- Gattie, DK. 2019. Will the US Lead? Or let China and Russia dominate nuclear energy. *The Hill*. May 22, 2019. [[Article Link](#)]

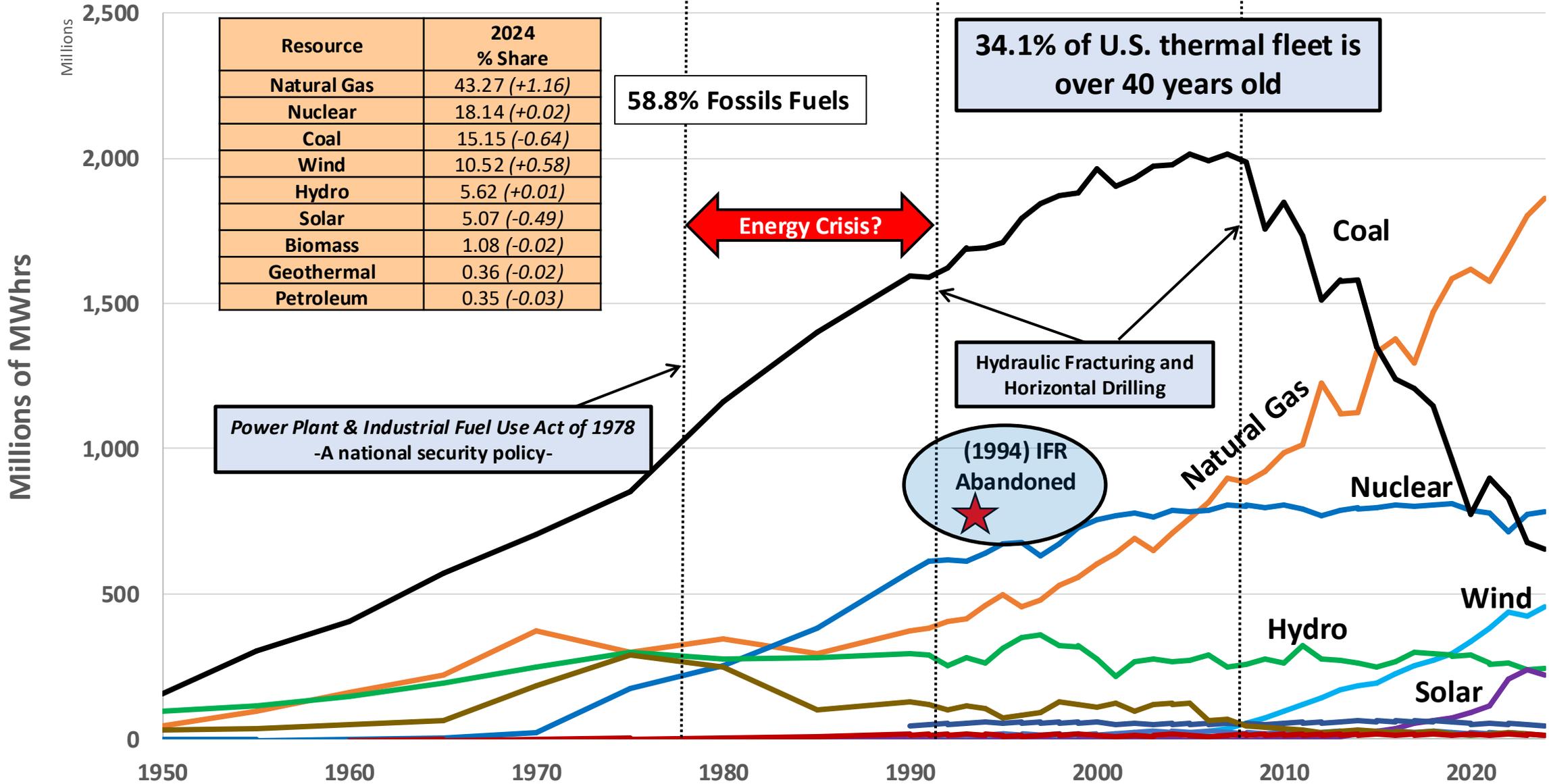
# Additional References

---

- Gattie, DK. 2019. 100% Renewable Energy isn't a Response to Climate Change —It's a Retreat. *The Hill*. March 14, 2019. [[Article Link](#)]
- Gattie, DK. 2019. The Green New Deal: Isolationist in scope and blind to geopolitical realities. *The Hill*. February 11, 2019. [[Article Link](#)]
- Gattie, DK. 2018. U.S. Nuclear Power: Too Strategic to Fail. *The Hill*. August 30, 2018. [[Article Link](#)]
- Gattie, DK. 2018. The problem with California going all-in on solar energy. *The Hill*, May 11, 2018. [[Article Link](#)]
- Gattie, DK. 2018. Nuclear Energy: A Key Component of America's Global Leadership. *Morning Consult*, February 16, 2018. [[Article Link](#)]
- Gattie, DK and N. Hertel. 2018. The Public Service Commission's Proper Vogtle Decision. *James Magazine*, Jan/Feb 2018. [[Article Link](#)].
- Gattie, DK. 2017. Nuclear power's resilience and security benefits are priceless. *The Hill*, December 8, 2017. [[Article Link](#)].
- Gattie, DK. 2017. The US can do better than the Clean Power Plan. *The Hill*, October 13, 2017. [[Article Link](#)].
- Gattie, DK. 2017. America is sacrificing its leadership role in nuclear energy. *The Hill*, October 6, 2017. [[Article Link](#)]
- Gattie, DK. 2017. U.S. National Security and a Call for American Primacy in Civilian Nuclear Power. *Forbes*. Sept. 7, 2017. [[Article Link](#)]
- Gattie, DK. Nuclear Power in America Requires Political Resolve. *Morning Consult*. May 23, 2017. [[Article Link](#)]
- Gattie, DK, and Jones S. An America Without Nuclear Power. *Forbes*. April 24, 2017. [[Article Link](#)].

# U.S. Electricity Generation by Resource

— Natural Gas 
 — Nuclear 
 — Coal 
 — Wind 
 — Hydro 
 — Solar 
 — Biomass 
 — Other 
 — Petroleum 
 — Geothermal



Resource	2024 % Share
Natural Gas	43.27 (+1.16)
Nuclear	18.14 (+0.02)
Coal	15.15 (-0.64)
Wind	10.52 (+0.58)
Hydro	5.62 (+0.01)
Solar	5.07 (-0.49)
Biomass	1.08 (-0.02)
Geothermal	0.36 (-0.02)
Petroleum	0.35 (-0.03)

58.8% Fossils Fuels

34.1% of U.S. thermal fleet is over 40 years old

Energy Crisis?

Hydraulic Fracturing and Horizontal Drilling

Power Plant & Industrial Fuel Use Act of 1978  
-A national security policy-

(1994) IFR Abandoned

Natural Gas

Coal

Nuclear

Wind

Hydro

Solar