



Annual Users' Conference

**ADVANCING RADIATION SAFETY.
EMPOWERING PROGRESS.**

M Resort, Henderson, NV | June 15 – June 18



MIRION
TECHNOLOGIES

*Advancing Radiation Safety.
Empowering Progress.*

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Nuclear Power Today & Tomorrow

New Nuclear Forum | Mirion Connect 2026

Carl Prather
Mirion Technologies

Mirion Connect | Annual Users' Conference 2026

Henderson, NV

A Moment Unlike Any Before



Confluence of Dynamics

Decarbonization

- *The world got serious about climate change — and nuclear is the only large-scale, always-on, zero-carbon source*

Energy Independence

- *Russia invaded Ukraine. The world got serious about where its energy comes from. Source matters.*

Unprecedented Demand Growth

- *AI data centers arrived — and broke the load growth model the entire utility industry was built on for 50 years*

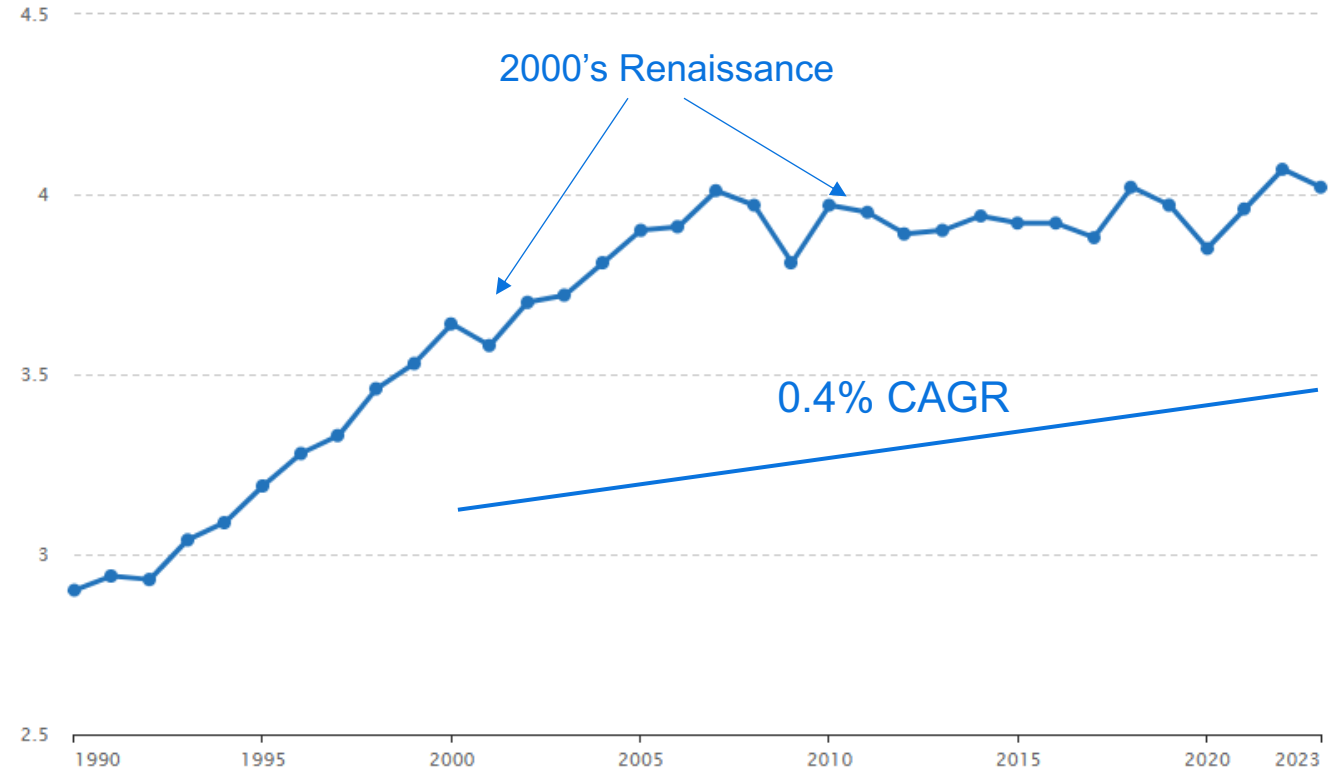
Demand Paradigm: Then vs. Now

THEN: 2000 – 2023

- ~0.4% CAGR annual demand growth (EIA)
- First renaissance (2001-2011) died on
 - flat demand
 - market distortions & cost of capital
 - cheap natural gas
 - Fukushima

Demand for Electric Power Generation Has Increased in Recent Years

Generation Terrawatt Hours (TWh)

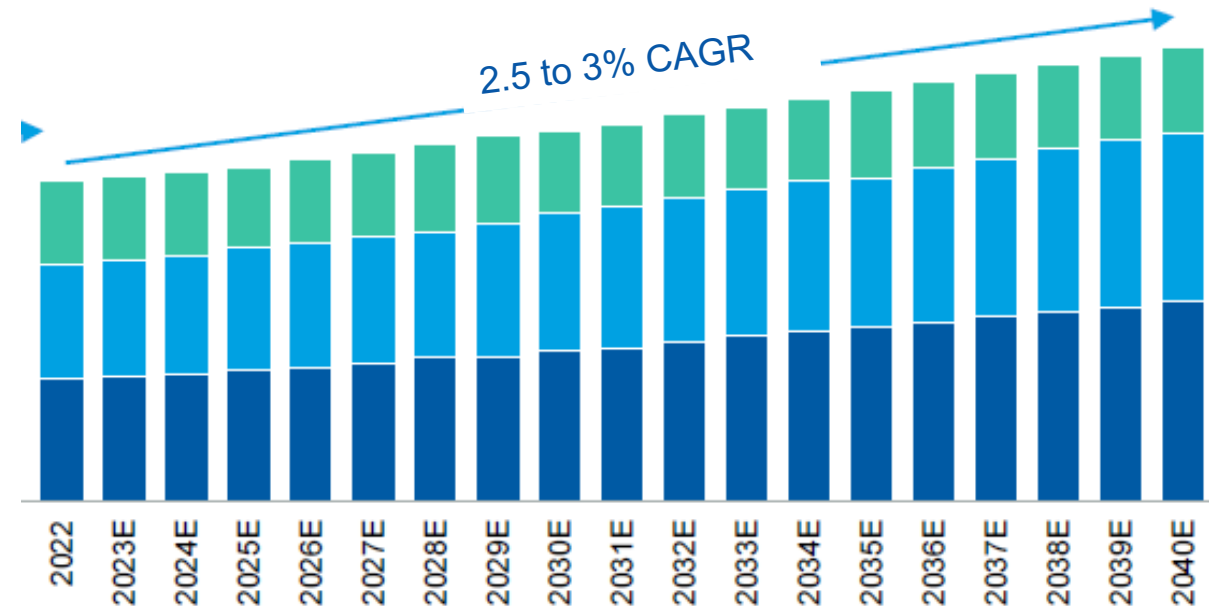


Source: EIA Annual Energy Review

Demand Paradigm: Then vs. Now

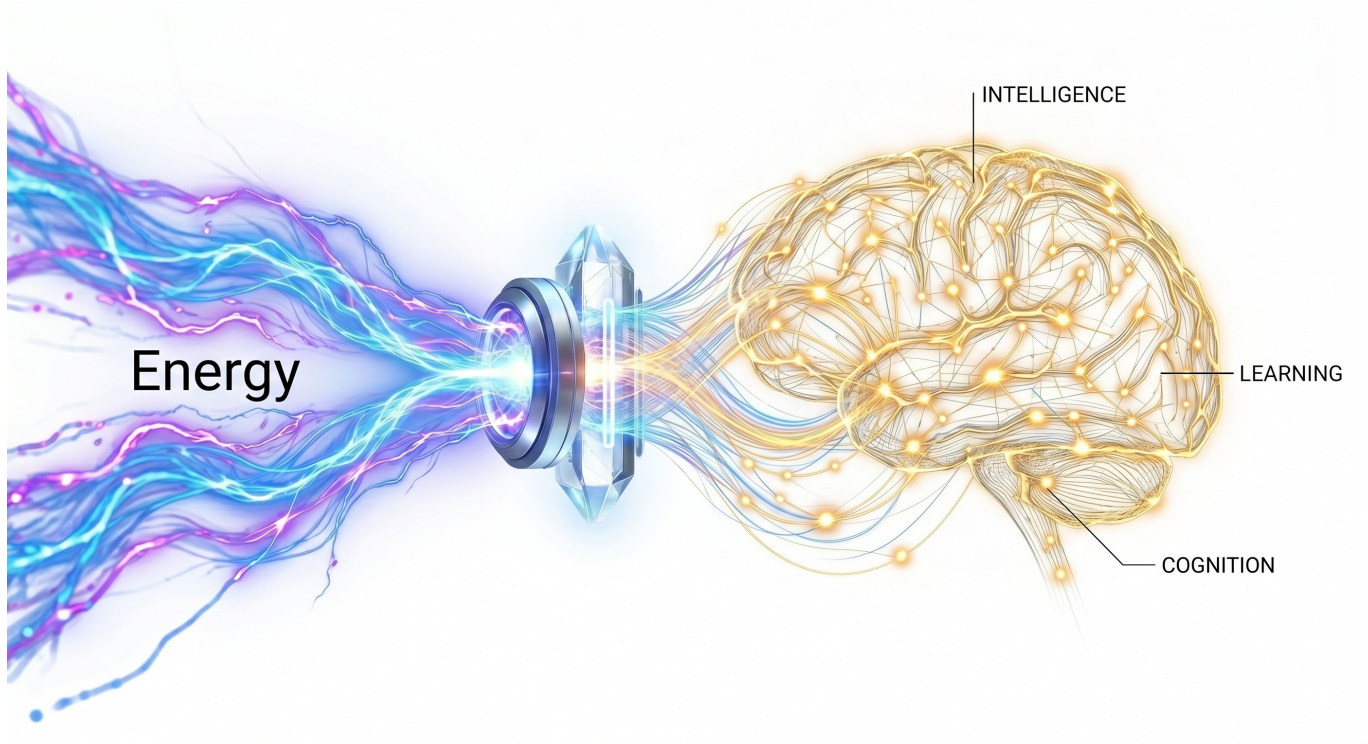
NOW: 2024 ONWARD

- ~2.8% CAGR projected through 2040
- Duke CEO: “30 years of -0.5%, now 10x that”
- Retiring firm capacity shrinking supply buffer
- US 2050 nuclear capacity target: 100 -> 400 GW



The Hyperscaler Catalyst

FOR FIRST TIME IN 40 YEARS, NUCLEAR IS THE ONLY ANSWER THAT FITS THE PROBLEM



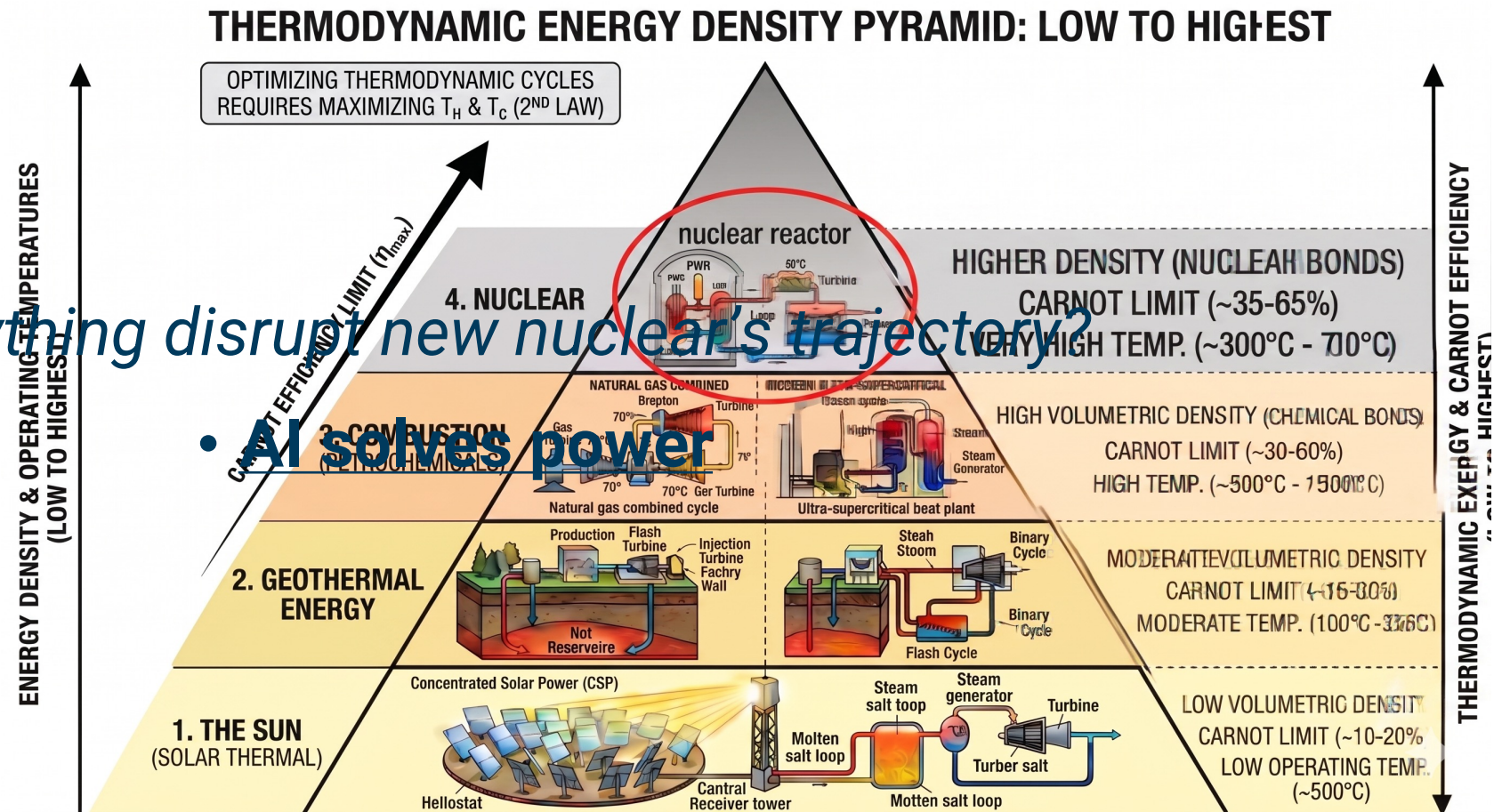
- Hyperscalers turning energy into intelligence
- Existential race between US & China
 - “Won” by ~2030
 - What does it mean to win/lose?
- Energy constraint
- US/China AI race is a thermodynamic one

Nuclear's Thermodynamic Positioning

- “Economic supremacy is directly correlated with thermodynamic supremacy, of which nuclear sits at the top of the pyramid.”

- Emmet “The Nuclear Barbarian” Penney

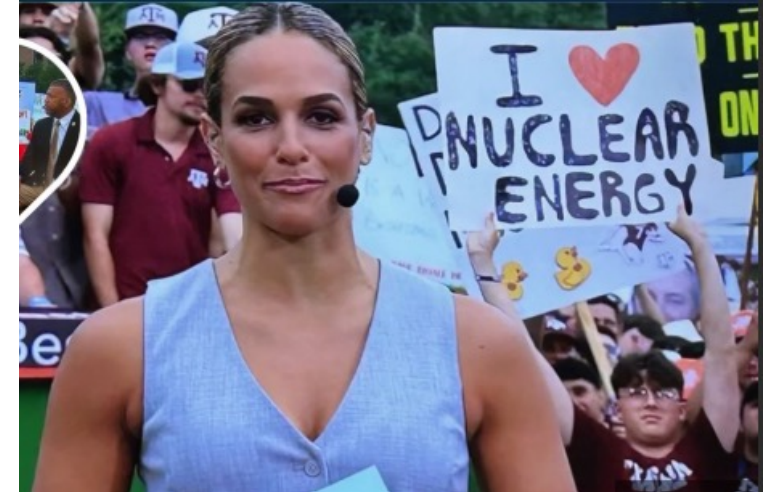
- Can anything disrupt new nuclear's trajectory?
- AI solves power



The Political Unlock

GENERATIONAL SHIFT IN NUCLEAR'S FAVOR

- *Executive mandates pushing +300 GW of new nuclear capacity by 2050*
- *Bipartisan energy security legislation creating new incentive structures*
- *Relaxing foreign investment rules*
- *Cultural shift: a new generation of climate-focused, pro-nuclear advocates*



NRC ANSWERING THE CALL

- *Licensing framework expansion*
- *Accelerating environmental & licensing review & reducing cost barriers*
- *Regulatory reform is necessary, but the NRC doesn't build reactors!!!*

Where the Work Actually Is

WHO DOES BUILD?

Developers build reactors

Utilities build reactors

Supply chains build reactors

Capital builds reactors

WE NEED AN ECOSYSTEM

ECOSYSTEM REQUIREMENTS

- *Developers & utilities aligned on deployment models*
- *Suppliers & manufacturers with nuclear-grade capability*
- *Investors with patient capital and clear risk frameworks*
- *Policymakers and regulators moving at deployment speed*
- *Construction firms with nuclear project experience*
- *Workforce development by universities and labs*
- *Demand signal from customers de-risking capital*

Mirion's Role and Why We're Here

FILLING THE GAP

- *Mirion offers the “easy button” for New Nuclear I&C systems*
- *Radiation layer: detection, measurement, and analysis*
- *Security & safeguards by design*
- *Licensing support*
- *Novel solutions*

TODAY'S AGENDA

- *SMR & Microreactor Deployment Pathways — Brad Rearden, Antares*
- *New Nuclear Cyber Security — Lon Dawson & Mike Rowland, Sandia*
- *Commercializing Advanced Nuclear — Seth Kanter, Idaho National Laboratory*
- *I&C for Advanced Nuclear Reactors — Yvotte Brits, Paragon*
- *Radiation Protection for New Nuclear — DJ LeClear, RG Health Physics*

The people in this room are building what comes next. Let's get to work.

Thank you

