



Nuclear AI Advisory, Research, and Managed Services



RTS | Nuclear Energy + AI Newsletter

The nuclear and AI conversation continues to move from signals to structure.

At RTS, we are also tracking two important developments. Activity around the [Texas Advanced Nuclear Energy Office \(TANEO\)](#) continues to reinforce the role of state-level funding in accelerating deployment. These are time-sensitive opportunities, and organizations that are prepared to move quickly will be best positioned to secure support.

In parallel, our latest [Regulatory Information Conference \(RIC\)](#) Update is now available. This report provides a detailed Raisun breakdown of the three-day meeting and what nuclear organizations should expect moving forward, particularly as AI becomes more integrated into licensing, operations, and regulatory expectations.

Limited-Time Opportunity:

RTS is actively supporting organizations pursuing TANEO and Genesis-aligned funding opportunities. These programs are strategic accelerators for nuclear deployment, workforce enablement, and AI integration.

Learn more: www.Raisuns.com/Taneo

RTS Research Team

Ready to talk, let's meet.

Momentum in the Field:

Industry Signals and the RTS Perspective

Design and Deployment: Microsoft and Nvidia Target Nuclear Bottlenecks

Microsoft and Nvidia are collaborating to develop AI tools that streamline nuclear facility design, permitting, and operations. These tools aim to unify complex datasets, align new applications with previously approved licensing frameworks, and enable digital replicas of plant and grid operations.

RTS Perspective:

AI is being positioned as a mechanism to reduce friction across the full lifecycle. The opportunity is meaningful, but success will depend on how these tools align with regulatory expectations and operational reality.

[Read the Article](#)

Licensing Acceleration: DOE Demonstrates AI-Driven NRC Application

The Department of Energy has completed a proof-of-concept using Everstar's AI platform to generate portions of an NRC license application from preliminary safety documents. The demonstration highlights the potential to significantly reduce documentation timelines while maintaining accuracy.

RTS Perspective:

Licensing has long been a critical bottleneck. AI introduces a path to acceleration, but long-term adoption will hinge on validation, traceability, and regulator confidence.

[Read the ANS Article](#)

[Read the Energy.Gov Article](#)

Execution Reality: AI Driving Both Demand and Delivery

AI is now influencing both sides of nuclear expansion. Data Centers are driving unprecedented electricity demand, while AI tools are being deployed to address construction bottlenecks, supply chain constraints, and workforce limitations.

RTS Perspective:

This is a structural shift. AI is not just increasing demand for nuclear. It is becoming essential to delivering it.

[Read the Article](#)

Scientific and Operational Breakthroughs

- [MIT research shows AI can reduce computational demands](#) in reactor modeling and improve operational decision-making while complementing existing safety frameworks.
- [TerraPower and SoftServe have introduced an AI platform](#) that can reduce nuclear plant design timelines from 18 months to as little as eight weeks using advanced simulation environments.
- [Researchers at the University of Florida](#) are using machine learning and supercomputing to accelerate plasma modeling, reducing simulation times from days to minutes.
- [THOR, developed by the University of New Mexico and Los Alamos National Laboratory](#), can solve complex materials calculations in seconds, compressing timelines that previously required weeks.
- [Los Alamos National Laboratory](#) is integrating AI tools into nuclear supercomputing environments, signaling a broader shift toward AI-enabled scientific research.

What This Signals

Across design, licensing, science, infrastructure, and policy, one pattern is clear. AI is compressing timelines across the nuclear lifecycle.

- Design cycles are moving faster
- Licensing pathways are evolving
- Scientific discovery is accelerating
- Infrastructure investment is expanding
- Policy and capital are aligning

The opportunity is significant, but so is the complexity. The organizations that lead will be those that integrate AI within nuclear standards, workforce models, and regulatory expectations.

RTS continues to support this transition through research, advisory, and managed services grounded in nuclear reality. As the TANEO and Genesis deadlines get closer, please leverage RTS to help you organize and expedite your applications. Learn more at www.raisuns.com/TANEO

— RTS Research Team

Schedule a meeting, today!

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