



NANO
Nuclear Energy Inc.

NANO Nuclear Energy Drilling Milestone Ceremony and Investor Event Presentation

October 24th 2025



Cautionary Note Regarding Forward-Looking Statements

This presentation and statements of NANO Nuclear's management in connection with this presentation contain or may contain "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. In this context, forward-looking statements mean statements related to future events, plans, objectives, and goals which may impact our expected future business and financial performance, and often contain words such as "seek," "expects", "anticipates", "intends", "plans", "believes", "potential", "will", "should", "could", "would" or "may" and other words of similar meaning. Specifically, forward-looking statements include those related to our anticipated timelines for development, demonstration, regulatory approval and commercialization of our products, technologies and services. These and other forward-looking statements are based on information available to us as of the date of this presentation and represent management's current views and assumptions.

Readers are cautioned that forward-looking statements are not guarantees of future performance, events or results and should not be relied upon as a predictor of actual results. Forward-looking statements involve significant known and unknown risks, uncertainties and other factors, some of which may be beyond our control. Readers are also cautioned that actual results may differ materially and adversely from the results implied in forward-looking statements. For NANO Nuclear, particular risks and uncertainties that could cause our actual future results to differ materially from those expressed in our forward-looking statements include but are not limited to the following: (i) risks related to our U.S. Department of Energy ("DOE") or related state or non-U.S. nuclear licensing submissions, (ii) risks related the development of new or advanced technology and the acquisition of complimentary technology or businesses, including difficulties with design and testing, cost overruns, regulatory delays, integration issues and the development of competitive technology, (iii) our ability to obtain contracts and funding to be able to continue operations, (iv) risks related to uncertainty regarding our ability to technologically develop and commercially deploy a competitive advanced nuclear reactor or other technology in the timelines we anticipate, if ever, (v) risks related to the impact of U.S. and non-U.S. government regulation, policies and licensing requirements, including by the DOE and the U.S. Nuclear Regulatory Commission, including those associated with the recently enacted ADVANCE Act and the May 23, 2025 executives orders seeking to streamline the nuclear regulatory process, and (vi) similar risks and uncertainties associated with the operating an early stage business a highly regulated and rapidly evolving industry..

Readers are further cautioned not to place undue reliance on our forward-looking statements, which apply only as of the date of this presentation. These factors may not constitute all of the factors that could cause actual results to differ from those discussed in any forward-looking statement, and we therefore encourage investors to review other factors that may affect future results in the our filings with the SEC, which are available for review at www.sec.gov and at <https://ir.nanonuclearenergy.com/financial-information/sec-filings>. We do not undertake to update our forward-looking statements to reflect events or circumstances that may arise after the date of this presentation, except as required by law.

Agenda

Introductory Remarks

- Susan Martinis, Vice Chancellor for Research & Innovation, University of Illinois
- Jay Yu, Founder, Executive Chairman and President, NANO Nuclear Energy

NANO Nuclear Energy Remarks

- James Walker, CEO, NANO Nuclear Energy
- Florent Heidet, CTO and Head of Reactor Development, NANO Nuclear Energy

University of Illinois Remarks

- Rashid Bashir, Dean, The Grainger College of Engineering, University of Illinois
- Caleb Brooks, Professor and Donald Biggar Willet Faculty Scholar, University of Illinois

Additional Guest Speakers

- Paulo Mesiti, Director, Nuclear Projects, Hatch
- Peter Tawfik, Director, Nuclear Operations, PCL Construction
- Matt O'Hare, CDCS, Managing Director Power Construction and VP AFCOM Chicago
- Derek Matthews, CSO, BaRupOn LLC
- Vice Admiral Joe Leidig, Jr., U.S. Navy (Ret.) – NANO Nuclear Executive Advisory Board
- General Wesley K. Clark, U.S. Army (Ret.) – NANO Nuclear Executive Advisory Board

Audience Q&A

Closing Remarks



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Introductory Remarks

Susan Martinis, Vice Chancellor for Research and Innovation at University of Illinois





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Introductory Remarks

Jay Yu, Founder, Executive Chairman and President, NANO
Nuclear Energy



AECOM Drilling First Step Toward First KRONOS MMR Prototype



NANO Nuclear Has the Tech, Capital, and Team to Deliver

KRONOS MMR™ Differentiated & De-Risked

- High TRL & more than \$120M invested in design over an 8-year period
- Well known HTGR tech with many patents
- Advancing in U.S. & Canada's licensing processes



Well-Capitalized & Supported by Leading Institutions

- Raised more than \$600M to date since IPO, have ~\$580M on balance sheet
- Additional \$900M shelf with leading banks under SEC review
- Growing institutional shareholder base

PIPER | SANDLER



Management Team with Experience in Nuclear

- Management team & Executive Advisory Board with diverse background in nuclear industry and government
 - Including many years of experience at NRC, DOE, & Military



Rolls-Royce®



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NANO Nuclear's Differentiated Strategy, Key Partnerships & Policy Support

James Walker, CEO



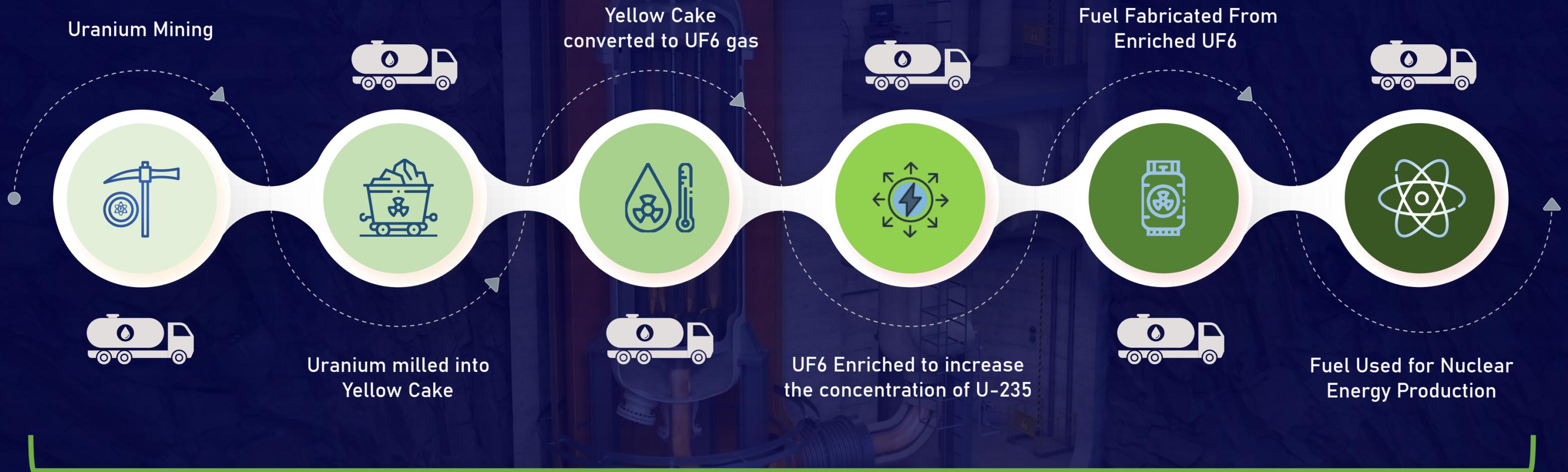
Microreactors - The Future of Nuclear Energy

Energy Source	Economies of Scale?	Ability to Scale Cost Effectively?	Minimal Safety Risk?	Ability to Co-locate?	Fully Modular & Assembled at Site?
Traditional Nuclear	✗	✗	✗	✗	✗
Small Modular Reactors (SMRs)	?	?	?	?	?
Microreactors	⚡	⚡	⚡	⚡	⚡

- Increased potential for economies of scale driven by modularity, mass production, factory fabrication, and large-scale deployment.
- Ability to scale cost effectively based on customer ramp plans.
- Substantially less safety risk relative to traditional reactors and some SMRs due to several factors.
- Ability to co-locate at customer sites, providing the option for projects to operate independently off the grid to enable 24/7 baseload power.
- Modularity to enable learnings and significantly less on-site construction relative to Traditional Reactors and some SMRs, reducing the likelihood of substantial cost over runs.

NANO Nuclear Seeking Vertical Integration to De-Risk Reactor Deployment

Primary Steps of the Nuclear Fuel Cycle



Fuel transport capabilities needed throughout the cycle

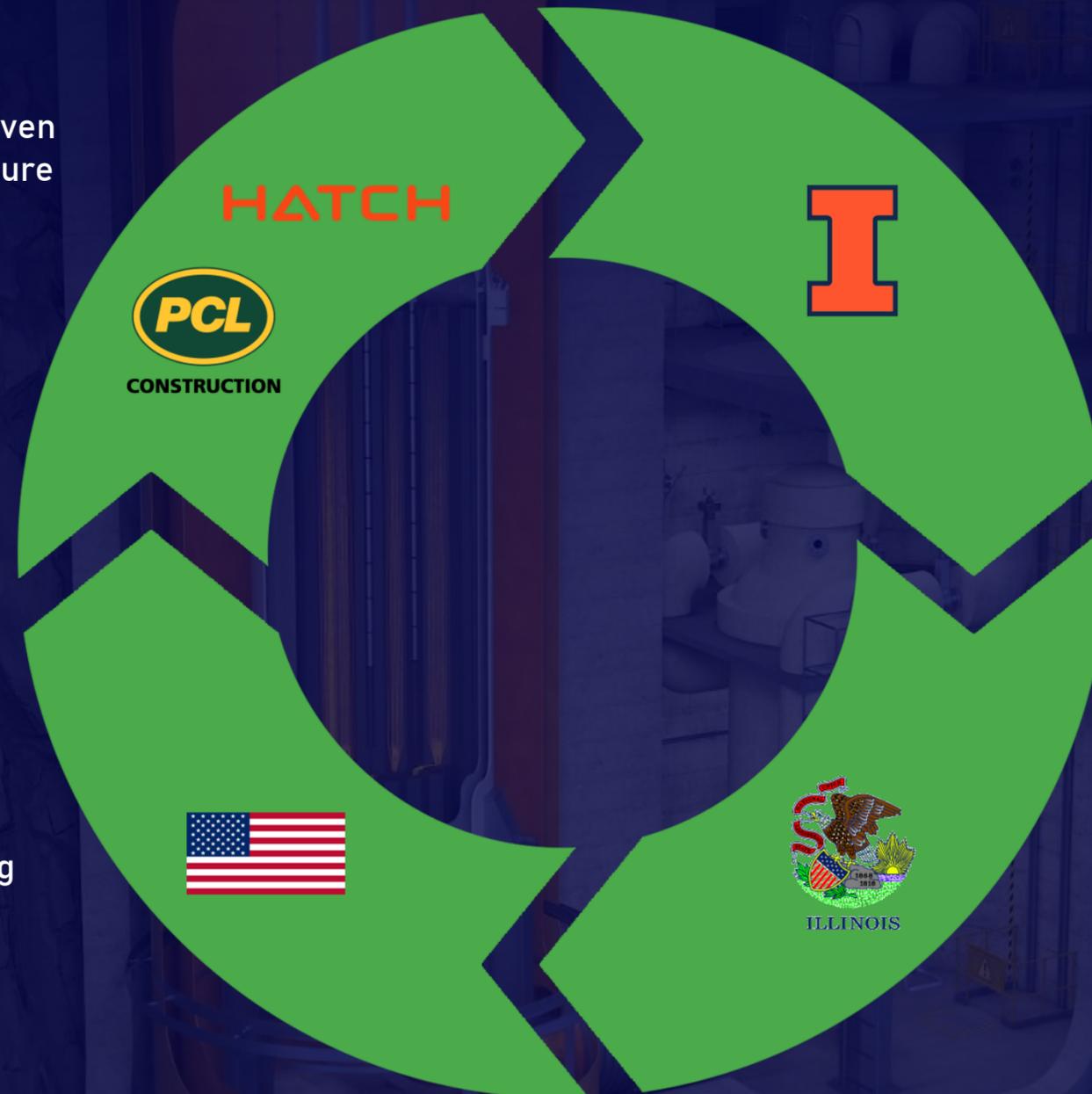
Strategic Collaborations, Project Supporters, and Government Support Enabling Success

Key Project Supporters

- Hatch & PCL bring decades of proven experience in complex infrastructure delivery
- Capabilities include engineering, procurement, construction, construction management, long lead component delivery

Unprecedented Federal Bipartisan Support

- Recent Presidential EO's signaling new phase of regulatory momentum by directing the NRC, DOE & DOD to support reactor development and deployment



University of Illinois

- U of I provides credibility, nuclear engineers, technical capabilities, and licensing/stakeholder support
- Partnership a model for commercial deployment nationwide

State of Illinois

- Strong policy support highlighted by recent REV agreement
- Unmatched nuclear infrastructure, workforce, and environment for a first-of-a-kind microreactor



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KRONOS MMR Technology Overview & Compelling Value Proposition

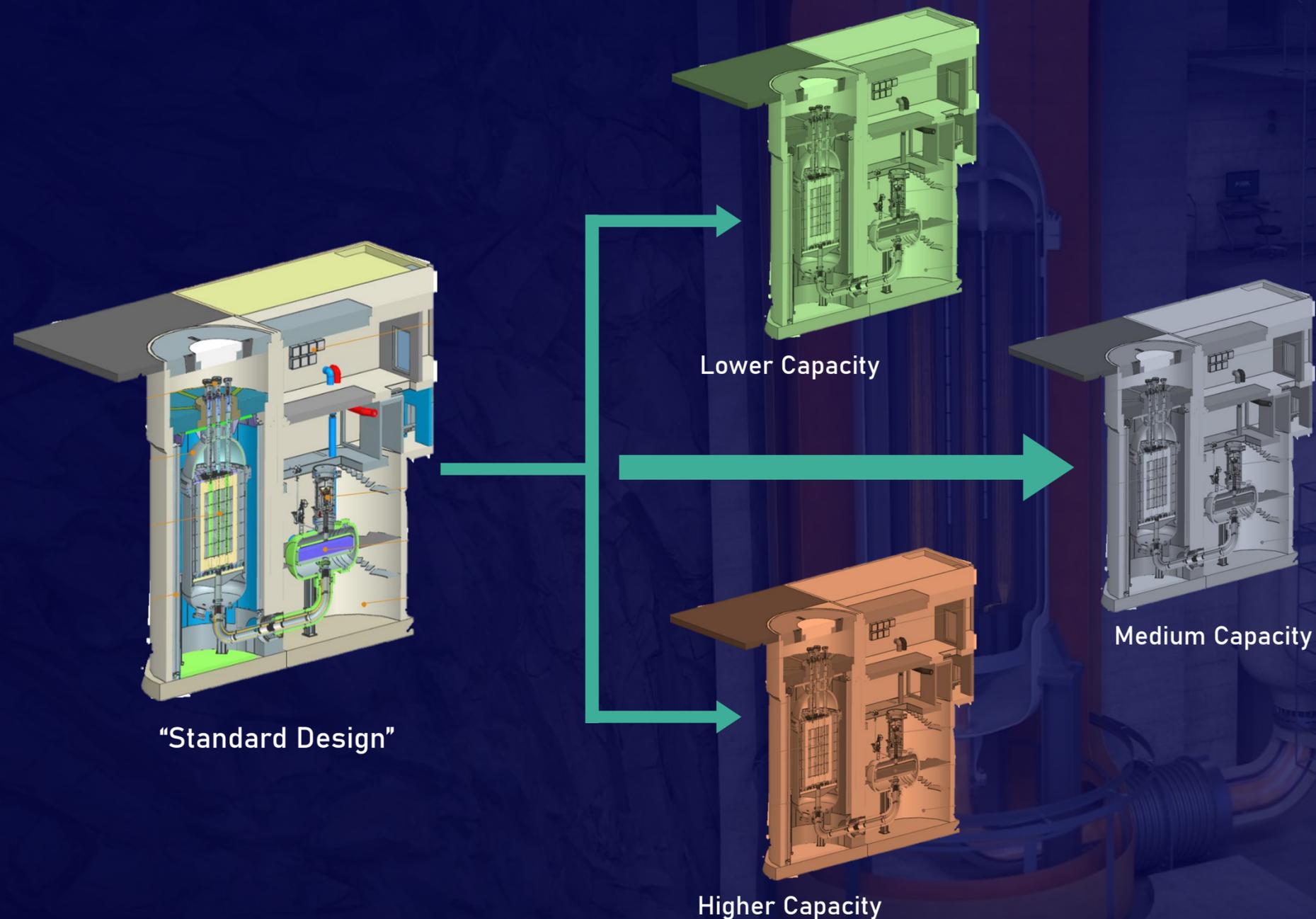
Florent Heidet, CTO & Head of Reactor Development

KRONOS Differentiated High-Temp Gas Cooled Reactor Utilizing TRISO Fuel



Standard Design Characteristics		
Materials	Coolant	Helium
	Fuel	TRISO
	Enrichment	9.9%
	Moderator	Graphite
	Structure	Steel
Buildings	Pre-fab + concrete structures	
Reactor Characteristics	Power	~15 Mwe/45 MWth
	Pressure	6 MPa
	Coolant T.	300-660°C
	Fuel mass	<1 ton
Balance of Plant	IHX	Printed-Circuit Heat Exchanger
	Secondary Medium	Molten Salt (solar salt)
	Electricity Production	Steam generator and turbines
	Efficiency	35-36%
Attributes	Passive safety, energy storage, road transportable components	

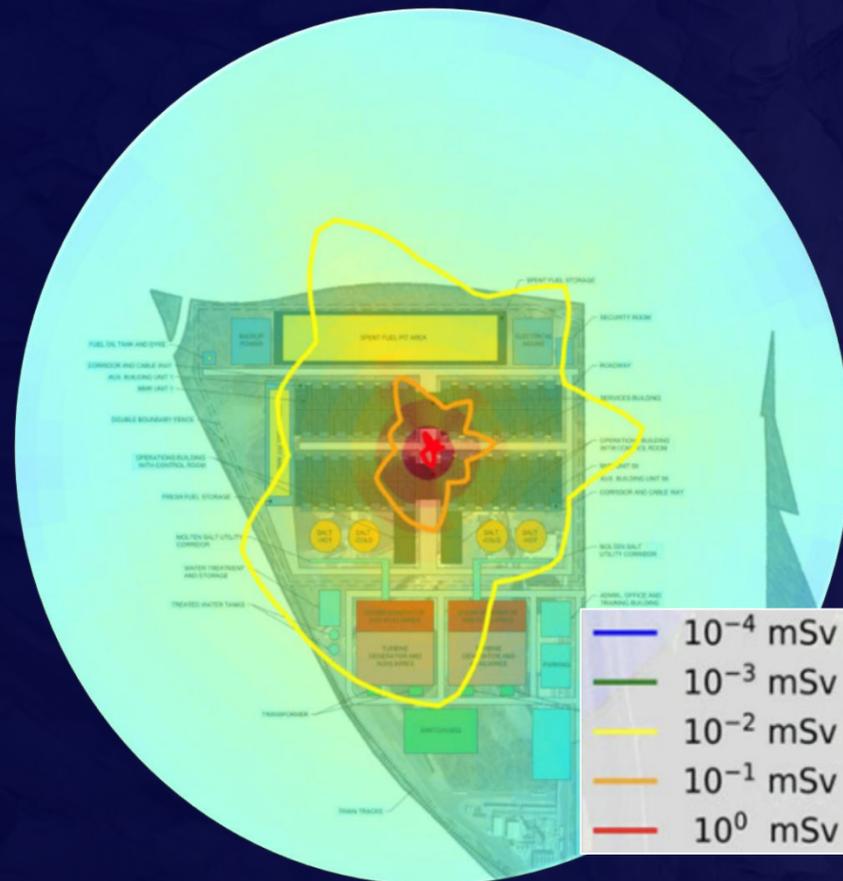
Simple/Flexible Design and Modularity Enable Deployment Versatility



- KRONOS' standard design and modularity provides versatility in deployment and ability to serve various industries and projects of different scales
- Option 1: Standard design can be set to operate at almost any power below 20 MWe for one local unit for specialty needs
- Option 2: Multiple units can be distributed to deliver power where needed
- Option 3: Several units can be modularly deployed to serve projects up to 1GWe+
- KRONOS MMR able to scale up cost effectively over time to meet staged expansions of larger projects

Reactor Safety Features Enable Favorable Footprint & Ability to Co-locate

Reactor	Negative Reactivity Feedback	Passive Heat Removal	Passive Shutdown	Safety Attributes	Fuel Safety Features
KRONOS	Yes	Yes	Yes	Inert coolant, high-temp materials	TRISO

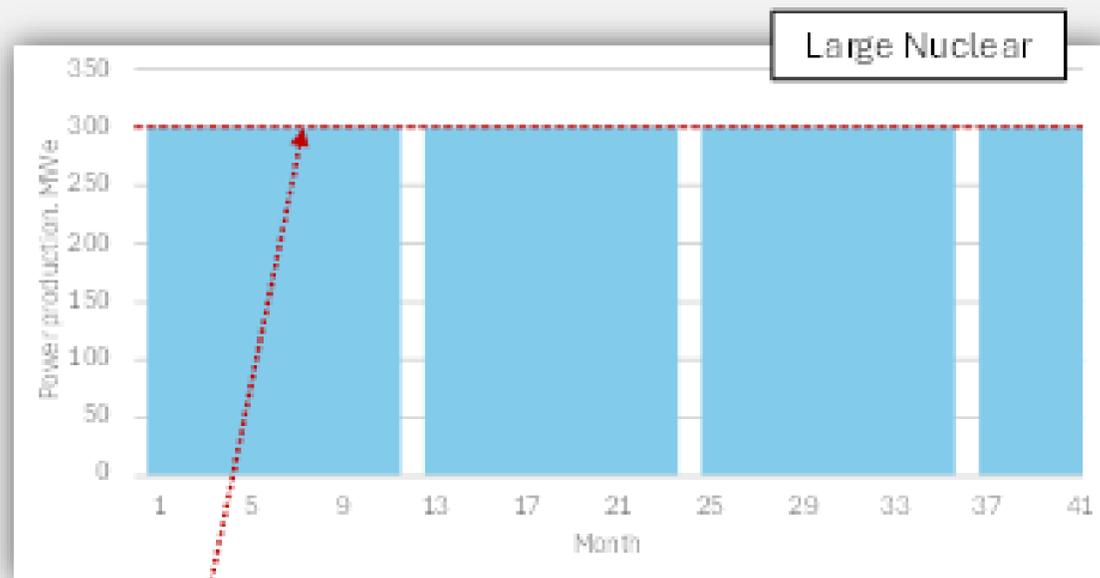


- Reactor safety features support a favorable footprint with no emergency planning zone needed, allowing the ability to co-locate at site, providing the option for off-grid power
- Illustration depicts a hypothetical radioactive dose dispersion for a 840 MWe plant, under Design Based Accident conditions
- Emergency Planning Zone (<1 mSv) well within the nuclear site boundary – showing meaningful radiation exposure not extending far beyond reactor building

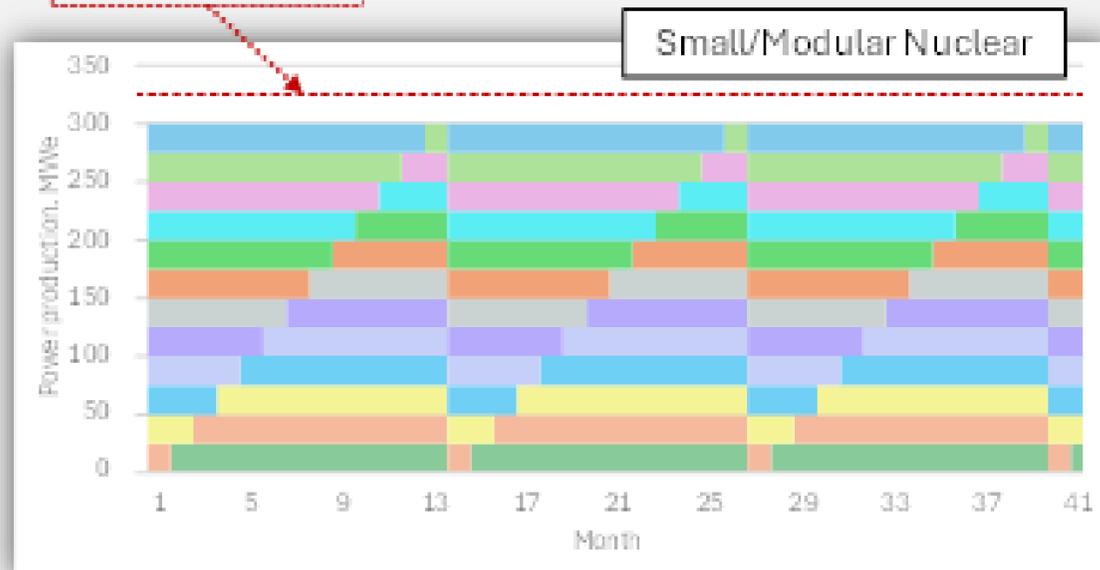
Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

KRONOS Can Provide Constant Baseload Power & Compelling Economics

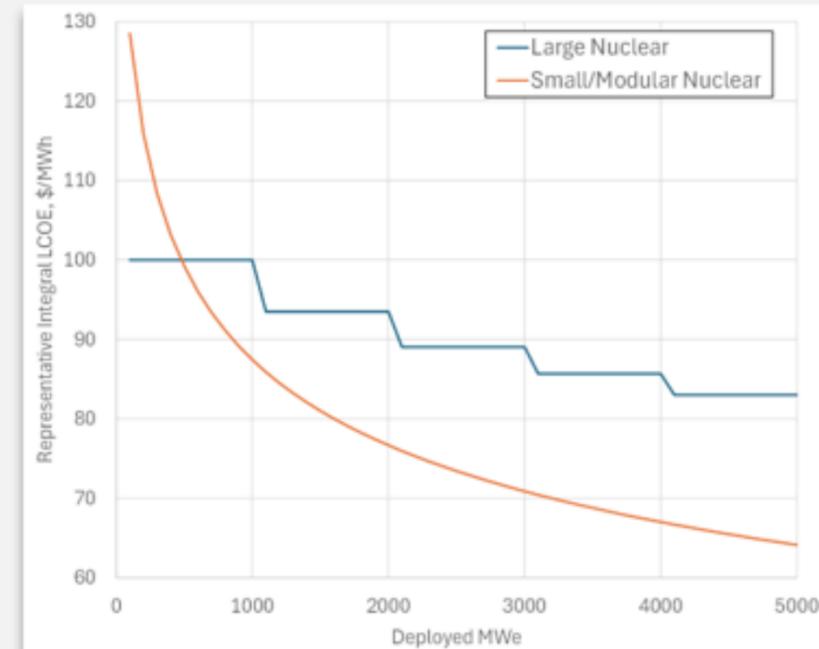
Constant Power Generation



Installed capacity



Favorable Learning Curve



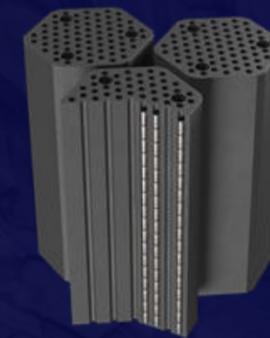
Colocation Reduces Grid Integration Challenges & Transmission Cost

Across the country, clean energy projects face yearslong wait times to connect to transmission grids. Similar bottlenecks in grid capacity are making it harder and harder for data centers to obtain the power they need.



IL Facility & Growing Number of Strategic Partners Represent Key Areas of Progress

- Recently established Oak Brook, IL facility will serve as a base for collaboration with the U of I on development and regulatory licensing
 - Hired >20 engineers & expected to initially support up to 60 engineers, researchers and support staff
- Illinois' established infrastructure and supportive political and social environments ideal for advancing next-generation reactor technologies
- Anticipated partnerships with Hatch and PCL enhance project-delivery capabilities and execution readiness as it advances toward commercialization
- Supply Chain a key area of focus and another important area of progress
 - Discussions with potential suppliers advancing in areas like TRISO fuel, reactor vessel, graphite, & other long-lead components





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University of Illinois Leadership Remarks

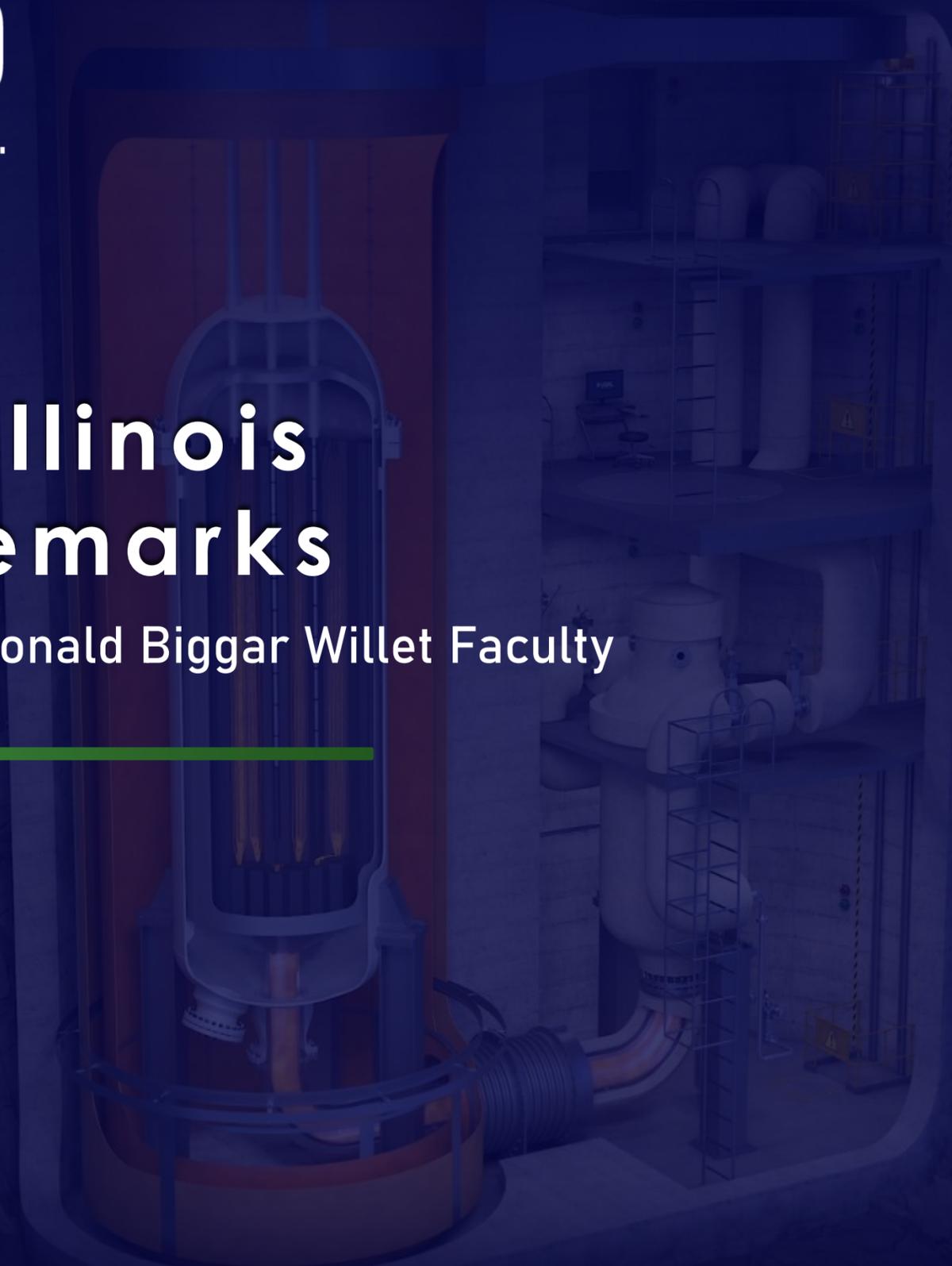
Rashid Bashir, Dean, The Grainger College of Engineering,
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University of Illinois Leadership Remarks

Caleb Brooks, Professor and Donald Biggar Willet Faculty
Scholar, University of Illinois





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Hatch – A Leading EPCM Firm Serving the Nuclear Industry

Paulo Mesiti, Director, Nuclear Projects, Hatch



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PCL- A Prominent Construction Firm With Deep Expertise in Advanced Energy Infrastructure

Peter Tawfik, Director, Nuclear Operations, PCL
Construction



ABOUT PCL



\$12B+

In Annual Volume

119

Year Old Company

100%

Employee Owned

32+

Offices Across
North America

Nuclear Certified Constructor and Fabricator



ABOUT PCL

LG&E CANE RUN 7-NGCC COMBINED CYCLE



FABRICATION & MODULE FACILITIES



KEARL OIL SANDS PROJECT (EXXON)



OG&E MUSTANG SIMPLE CYCLE



**BUILDING A BETTER
FUTURE, TOGETHER**

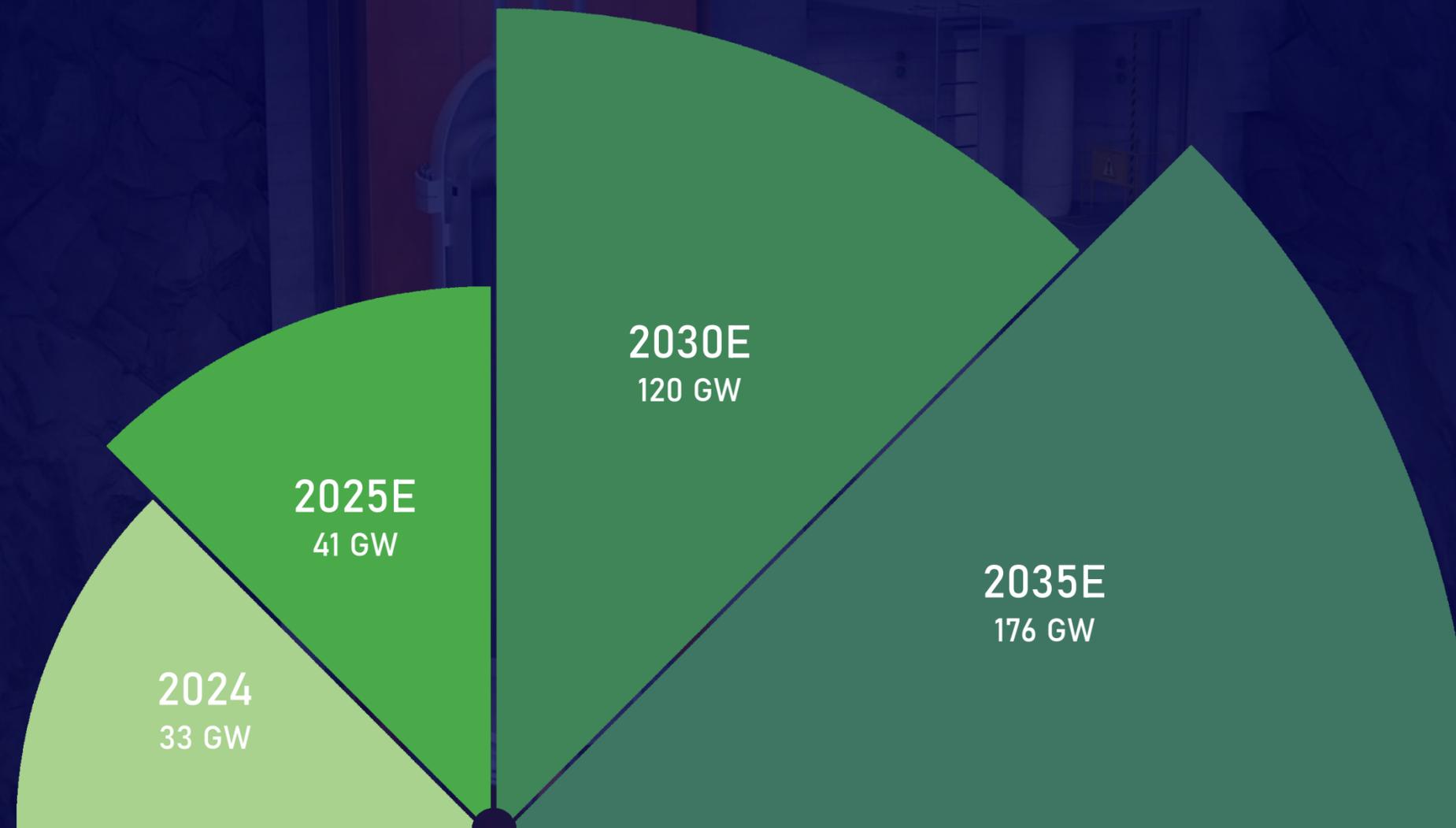


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Advanced Nuclear Solutions Needed To Address Growing Data Center Power Needs

Matthew O'Hare, CDCS, Managing Director, Power
Construction & VP, AFCOM Chicago

US Data Center Power Capacity Expected to 5x by 2035



Note: "E" refers to estimated data center power capacity.

Source: Deloitte Research Center for Energy and Industrials' analysis of data taken from DC Byte, the Center for Strategic and International Studies, Wells Fargo, Global Efficiency Institute, and Lawrence Berkeley National Laboratory.

Why Advanced Nuclear for Data Centers?





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Exploring KRONOS as a Scalable Solution for BaRupOn's Energy Future

Derek Matthews, CSO & Electrical Architect, BaRupOn

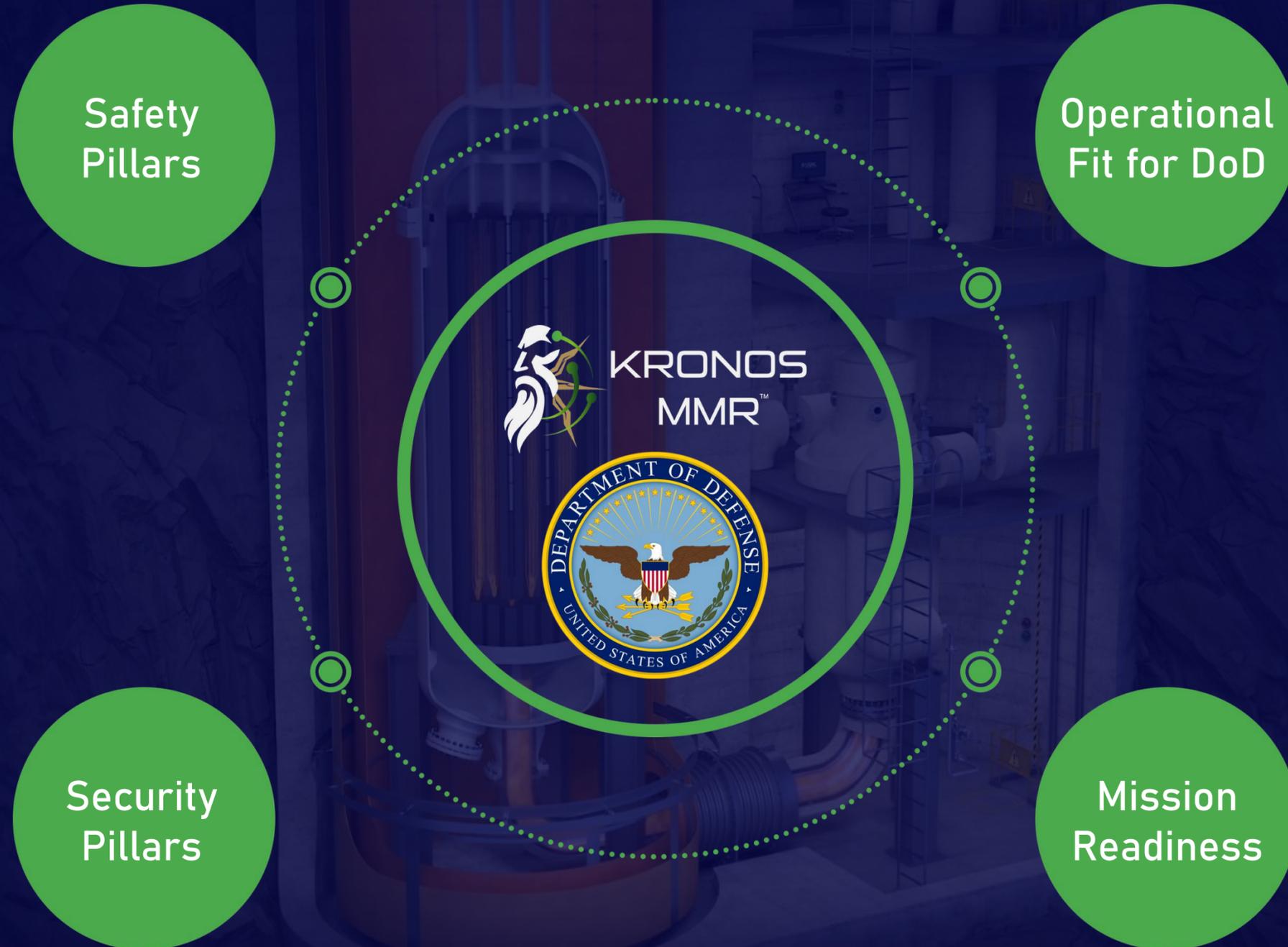


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KRONOS MMR Applicability for Military Applications

Vice Admiral Joe Leidig, Jr., U.S. Navy (Ret.), NANO Nuclear Executive Advisory Board Member

KRONOS MMR Ideal for DoD Requirements





KRONOS MMR: The Nuclear Backbone For Next Generation Off-Grid & Microgrid Infrastructure

General Wesley K. Clark U.S. Army (Ret.), NANO Nuclear Energy Executive Advisory Board Member



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KRONOS
MMR™



HALEU Energy
Fuel Inc.



ADVANCED FUEL
TRANSPORTATION INC.



NANO
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THANK YOU!

For Further Information, Please Contact:

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