

X·ENERGY

May 2026

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This presentation contains forward-looking statements that do not relate strictly to historical or current facts. Words such as "anticipate," "believe," "expect," "intend," "may," "plan," "potential," "project," "will," and similar terms may identify forward-looking statements, though their absence does not mean a statement is not forward-looking. These forward-looking statements include, but are not limited to, statements relating to our expected business plans (including receipt of technology and services fees); total addressable market and unit economics; our expectations regarding reaching commercialization and expected timing; our construction and fuel fabrication plans; our expectations regarding receipt of regulatory approvals; our competitive advantage; and future business outlook.

These statements are subject to known and unknown risks, uncertainties, and assumptions, and actual results may differ materially due to factors including, but not limited to: our ability to achieve final investment decisions from customers; our ability to deliver a commercial Xe-100; project delays or setbacks; liquidity and capital raising ability; changes or delays in government support or regulatory licenses; cost, schedule, and economic uncertainties from inflation, supply chain constraints (including HALEU access), labor availability, and first-of-a-kind risks; limited operating experience at scale; reliance on specialized suppliers; safety and cybersecurity incidents; uncertain market adoption of SMRs and potential for slower demand growth or project cancellations; competition; reliance on key partners and customers; fuel business dependence on licensing and scaling our fuel fabrication facilities; regulatory, policy, and public perception changes; and ability to recruit and retain talent and protect intellectual property.

Additional information on these and other risk factors that could cause results to differ materially from those described in the forward-looking statements can be found in our SEC filings. Any forward-looking statement speaks only as of the date hereof, and we undertake no obligation to update any forward-looking statement except as required by law.

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This presentation may contain statistical data and estimates from independent industry publications and internal sources. We have not independently verified such data and make no representations as to its accuracy or completeness. You are cautioned not to give undue weight to these estimates.

What we plan to do

License Reactor Technology and Provide Engineering & Lifecycle Services



Xe-100 reactor¹

Advanced small modular nuclear reactor (SMR)

Gen IV high temperature gas-cooled reactor design (known as the Xe-100) builds upon decades of development and real-world operating experience

Meet customer power & industrial heat needs

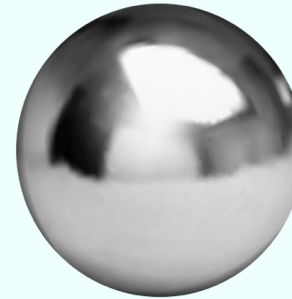
Designed to serve multiple use cases through outputs of electricity and / or high-temperature steam

Engineering & Lifecycle Services

Service offerings span project planning, assembly coordination, construction support, regulatory support, procurement support and long-term support services

Anticipate fees for technology and services that begin years before a project is brought online and continue over its life

Manufacture and Sell Nuclear Fuel



TRISO-X fuel

“Most robust nuclear fuel on earth”

U.S. Department of Energy describing TRISO fuels²

Proprietary fabrication methods

Tri-structural isotropic (“TRISO”) coated particle fuel in pebble form

In-house manufacturing

TRISO-X, LLC (wholly owned subsidiary) is constructing a facility to fabricate TRISO-X fuel using proprietary methods

Anticipate recurring revenue over the anticipated 60-year life of the reactor

¹ Figure is intended to represent an illustrative rendering and is for illustrative purposes only

² Department of Energy: “TRISO Particles: The Most Robust Nuclear Fuel on Earth” (July 9, 2019)

What we don't plan to do

EPC

-  We do not provide any EPC services – *our customers select who will build their projects*
-  We do not take construction risk – *we provide the engineering for the reactor and related budgeting and scheduling services*
-  We do not provide construction management services – *we do educate EPCs on our offerings to get them comfortable bidding projects*

Own & Operate

-  We do not generate or sell energy – *projects using our reactors will be owned and operated by our customers*
-  Our customers are responsible for financing and executing their projects – *we do not plan to finance or invest in our customers' projects*
-  We do not bear any significant inventory risk with HALEU – *our customers are responsible for procuring nuclear materials; we only provide fuel processing*

Our business model is not expected to require significant capital after completing design and engineering for our first projects

X-energy's key highlights in 2026

	January 2026: Announced 10-year graphite supply agreement with SGL Carbon for reactor components of the Xe-100, including an initial three-year award valued at over \$100mm for the first commercial deployment
	February 2026: TRISO-X received the first ever NRC Category II license enabling TRISO-X to manufacture advanced nuclear fuel at the co-located TX-1 and TX-2 sites
	March 2026: Signed an MOU ¹ with IHI to expand U.S.-Japan supply chain development for the Xe-100, exploring commercial-scale manufacturing of nuclear-grade components to support X-energy's ~11.5 GW pipeline
	March 2026: Signed an LOI ² with Talen to evaluate deploying three or more four-unit Xe-100 plants (~1 GW) in Pennsylvania and across the PJM energy market to add clean baseload capacity
	April 2026: Announced an upsized initial public offering of Class A common stock at \$23 per share and began trading on the Nasdaq Global Select Market under the ticker symbol XE
	April 2026: Announced a collaboration with Louisville Gas & Electric Company and Kentucky Utilities Company, subsidiaries of PPL Corporation, to explore Xe-100 deployment in Kentucky

¹Memorandum of Understanding

²Letter of Intent

X-energy is a leader in the advanced nuclear space

1

Innovative Technology Underpinned by Decades of R&D

Safer, fast deployment and scalability,
all underpinned by decades
of high-temperature gas-cooled reactor
development and operating experience

2

Ideal Solution for Emerging AI and Industrial Demand

Modular 320 MWe design¹ well matched
to the power needs of the AI revolution
and ideal for industrial electrification

3

Supported by Blue-Chip Customers and Partners

Dow, Amazon, Centrica are customers /
partners with identified project sites
Significant equity investment from Amazon

4

First Projects Underway and in Advanced Stages of Regulatory Review

>11 GW of identified projects with
first three customers²

Regulatory review underway for first
two projects; Dow project Construction Permit
Application approval expected by Q1-2027

5

Attractive Business Model that Focuses on Selling Technology, Services and Fuel

Charge fees for technology and
engineering services generating
significant revenue pre-COD

Generate recurring revenue from lifecycle services
and fuel over reactor's anticipated 60-year life

6

The Financial and Human Capital Required to Execute

Approximately \$1.1B of
net proceeds raised in IPO

>900 employees with significant nuclear and
project execution experience

¹ Each Xe-100 plant represents a 320 MWe deployment (four reactors)

² Assuming each customer exercises its contingent rights in full

Xe-100 Design: High-performing advanced reactor



Cleaner Generation

Virtually zero direct carbon emissions during generation



Firm & Reliable ("Always On")

Four individual reactors feed into a common source, which is expected to reduce downtime and support over 95% plant availability



Intrinsic Safety Features without Added Complexity

Design and intrinsic physics of the reactor require fewer mechanical safety systems and less personnel to operate



More Secure than Traditional Nuclear Reactors

TRISO-X pebble fuel is a containment vessel in itself and is able to withstand extreme temperatures without melting



Scalable Over Time

Modularity and simplified safety systems enable scalability of reactors while limiting construction costs



Streamlined Design ("Off-the-Shelf" components)

Design enables the use of off-the-shelf and factory-built components leveraging existing supply chains and shipped channels



Versatility for Both Electricity & Steam

Helium coolant allows the Xe-100 to withstand higher pressure and deliver heat at higher temperatures



Load-following

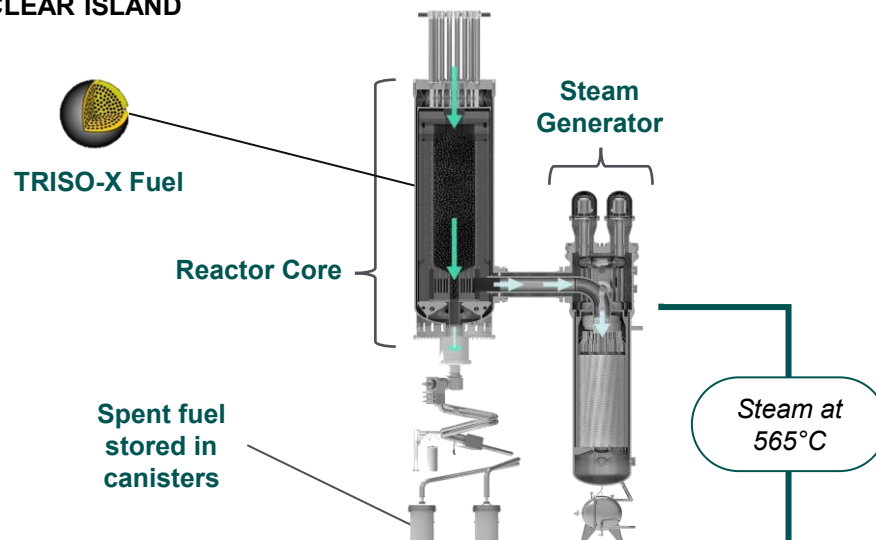
Designed to ramp down from full power to 40% in minutes and vice versa

¹ Each Xe-100 plant represents a 320 MWe deployment (four reactors)

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Xe-100 Schematic (Illustrative)²

NUCLEAR ISLAND



CONVENTIONAL ISLAND



Power Generation

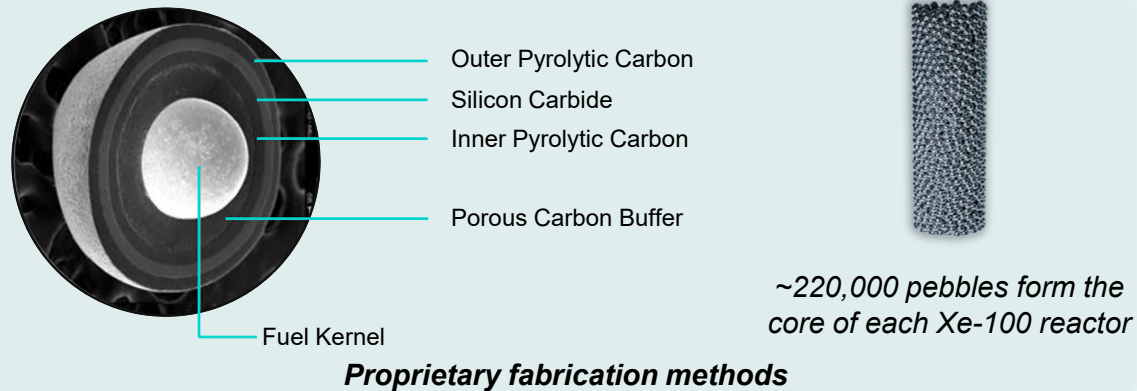


Process Heat

One Xe-100 Plant consists of four 80 MWe reactors, for a total capacity of 320 MWe¹

TRISO-X fuel: Our proprietary TRISO fuel

Proprietary TRISO-X Fuel Form



More Secure

Self-containment of each pebble reduces need for expensive concrete and steel containment



Robust

Designed to withstand high temperatures without melting



Efficient

Uses HALEU¹ fuel for higher burn up, allowing pebbles to remain in reactor longer and burn off more by-product



¹ High-Assay Low-Enriched Uranium

Integrated fuel fabrication business

✂ Cutting Edge

Expected to be North America's first purpose-built, commercial, advanced nuclear Category II fuel fabrication facility

✂ Reduced Risk

50/50 cost share with the U.S. Department of Energy through the ARDP for TX-1

✂ At Scale

Expected to enable simultaneous fueling of an initial fleet of Xe-100 reactors, meeting large-scale deployment needs



TX-1 Rendering

Commercial fuel fabrication facility development

Fuel Fabrication Pilot Facility



*X-energy TRISO-X Fuel Fabrication Pilot Facility
at Oak Ridge National Laboratory*

- **TRISO-X pilot plant operational since 2016**
- Currently producing kilogram batch quantities of TRISO-X
- To be temporarily shut down and relocated from Oak Ridge National Laboratory to property in Oak Ridge, TN
- Will then serve as the 'laboratory' for future TRISO-X fuel development

*Expected incremental fuel facilities assumed to
have production capacity similar to TX-2*

First Commercial Fuel Fabrication Facility



*North America's First Commercial Advanced Nuclear
Fuel Fabrication Facility*

- First TRISO-X fuel facility (TX-1) is expected to support 11 Xe-100 reactors at steady state operations; **target fabrication beginning in first half of 2028**
- TX-1 awarded a ~\$150M tax credit from DOE for U.S. FOAK advanced nuclear fuel fabrication facility
- TX-2 design is well underway

Plant	Estimated Annual Nameplate Capacity (MTU) ¹	Expected Annual Capacity (# of Xe-100s) ²
TX-1	6.25 MTU/yr	11
TX-2	25 MTU/yr	44

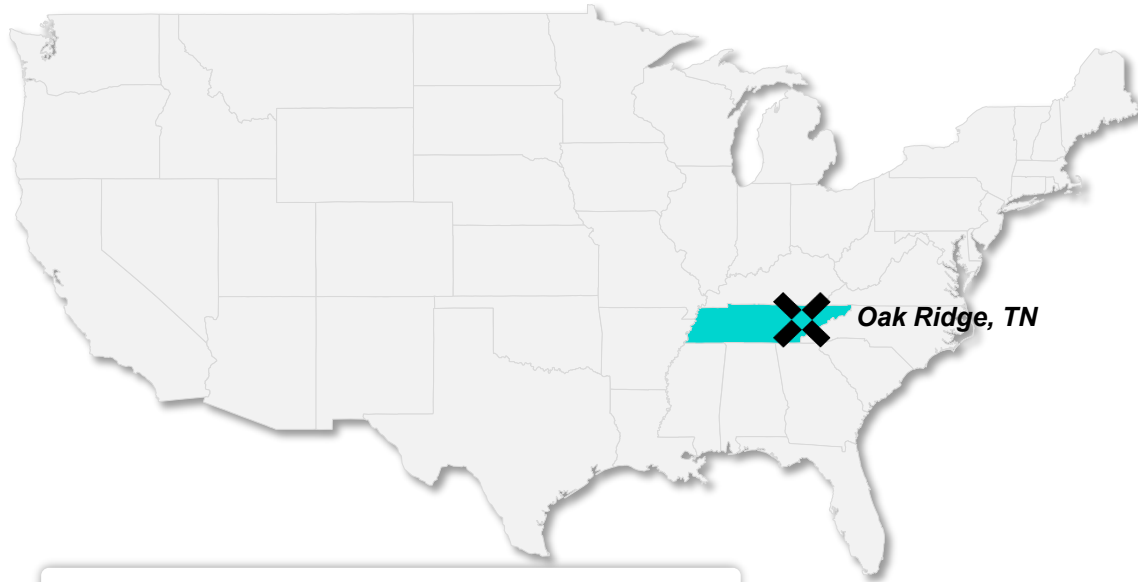
NRC completed the review and approved the first-ever Part 70 HALEU Fuel Fabrication license in February 2026 for TX-1 and TX-2

¹Throughput capacity assumes 80% capacity factor resulting in 5 MTU and 20 MTU, respectively

²Number of operating Xe-100 reactors that can be refueled annually at capacity factored capacity, assuming no start-ups

TRISO-X fuel facility updates

X-energy is progressing on construction of its first-of-a-kind TRISO-X fuel facility in Oak Ridge, TN



TX-1 Design and Construction Update

Vertical construction has begun and is >50% complete



Vertical Construction



Vertical Construction Phase 2A:

- Clark Construction Group was selected
- Full vertical construction execution began in September 2025

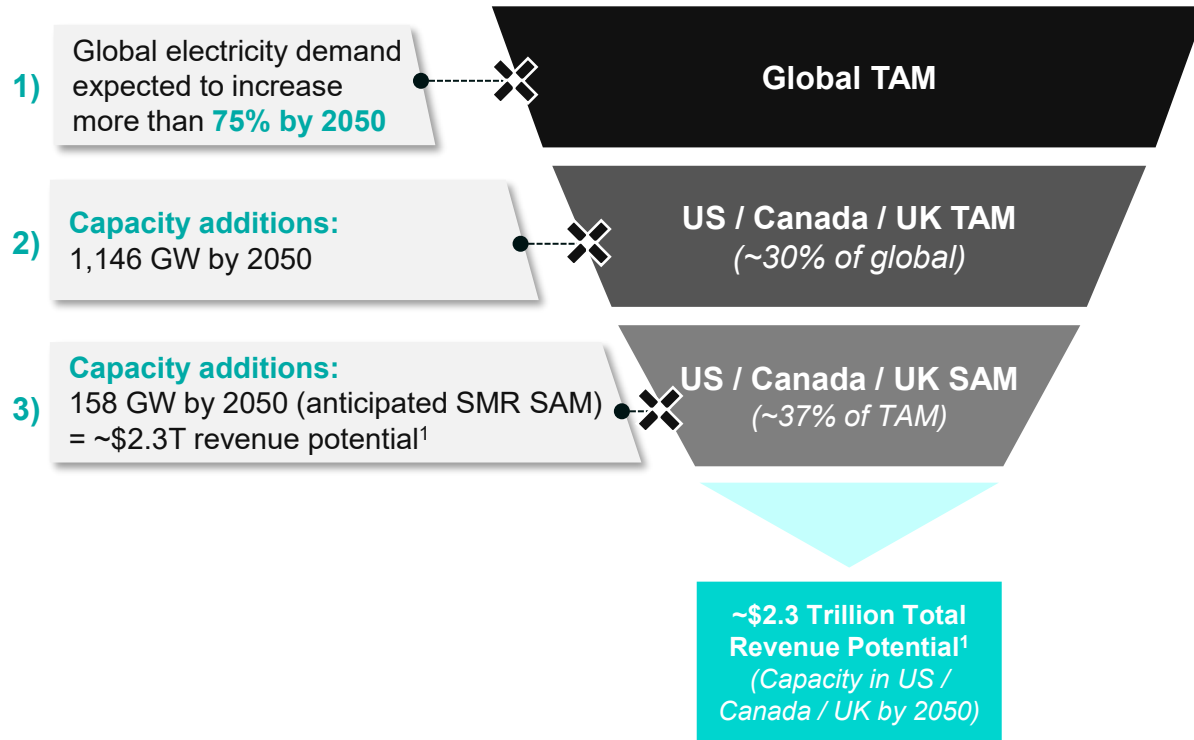


Facility Construction / Equipment Installation Phase 2B:

- Phase 2B equipment installation expected commencement in mid-2026
- Construction expected completion in 2027 for target operations beginning in first half of 2028

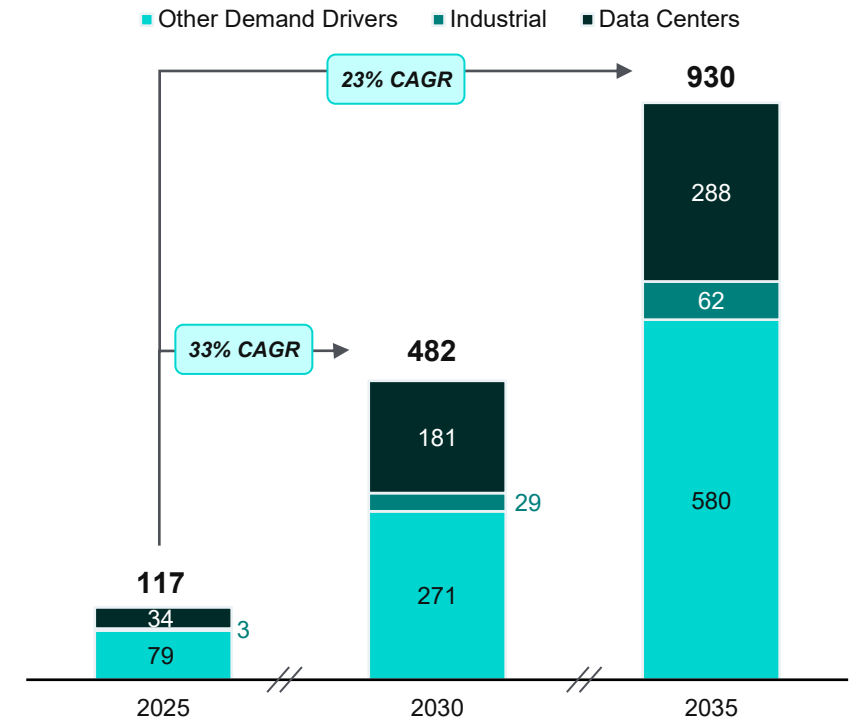
Power demand in key markets driven by AI and industrial growth

X-energy has the potential to unlock ~\$2.3 trillion of revenue potential by 2050¹



Market driven by the growing load growth demand from AI and industrial use²

U.S. FUTURE ELECTRICITY DEMAND (TWh)³



¹ 2024 PA Consulting Report; Revenue potential assumes: 158 GW = ~494 four-reactor plants multiplied by ~\$4.7bn in revenue per plant to arrive at the ~\$2.3 trillion in total revenue potential

² BNEF New Energy Outlook 2025

³ Base case year of 2024

Customer relationships create a path to commercialization

Visibility to approximately 11.5 gigawatts across 144 reactors¹



Industrial Heat

First-of-a-Kind ("FOAK") Deployment

- **320 MWe Xe-100 plant** at Dow's Seadrift Operations site in Texas
- Material funding support from the U.S. government through the Advanced Reactor Demonstration Program

Early 2030s²

amazon

AI Demand

First SMR Data Center Partner in U.S.

- Options to bring **more than 5 GW of planned projects** for development in 2030s
- First project expected in Washington state for 320 MWe, with potential to upsize to 960 MWe (i.e., three Xe-100 plants)

2030s²

centrica

Energy Security

First SMR Utility Customer in the U.K.

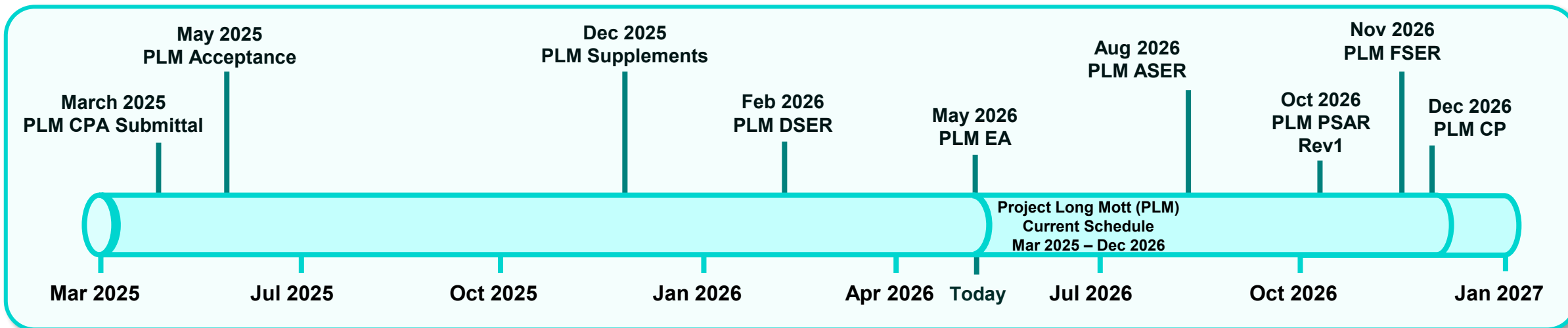
- **Approximately 6 GW of power** to be deployed across the U.K.
- First deployment expected at Hartlepool site for a 320 MWe Xe-100 plant with potential to upsize

Mid-2030s²

¹ Excludes contemplated pipeline projects from LOIs and assumes each customer exercises its contingent rights in full

² Expected timeline to completion

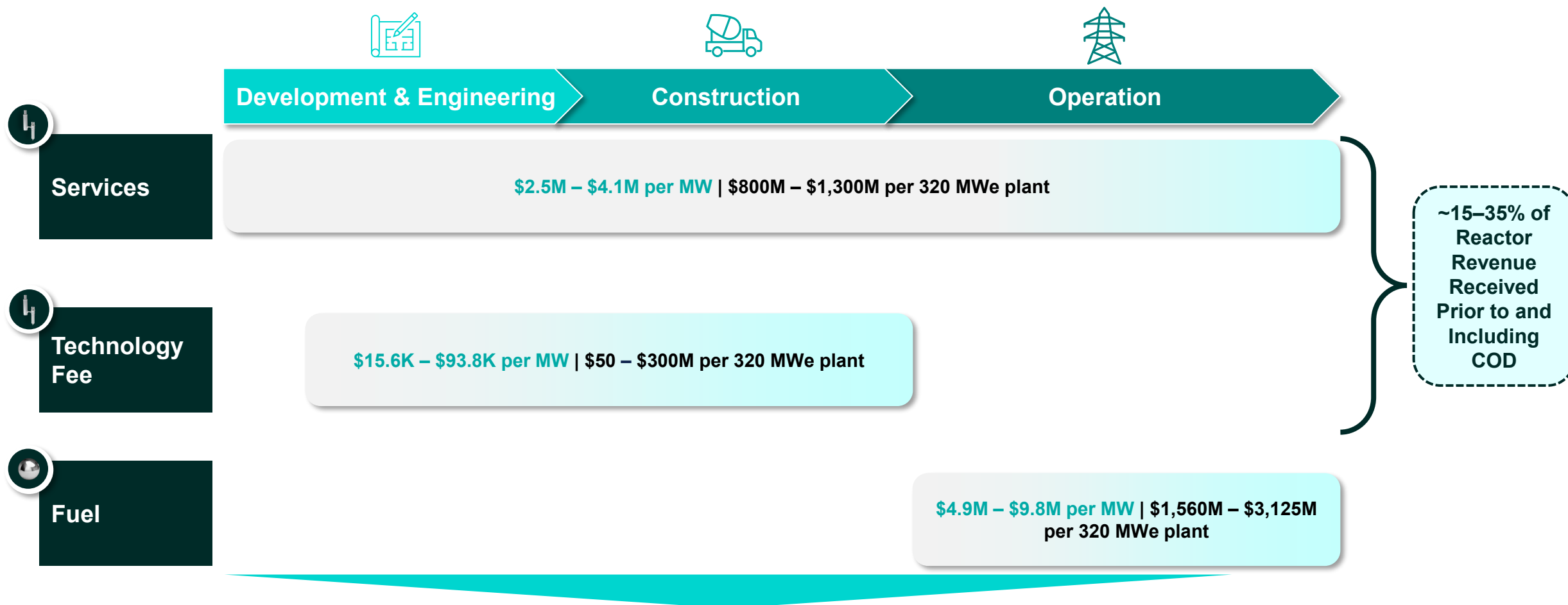
Dow project anticipated licensing status



- **Sustained high-quality engagements with NRC are keeping project on schedule**
- **Safety Review**
 - NRC completed Draft Safety Evaluation Report (DSER) on schedule
 - Remaining open items on track to be closed by August 2026 Advanced Safety Evaluation Report (ASER) milestone
 - Potential opportunity to accelerate overall schedule based on success to date
- **Environmental Review**
 - Achieved closure of all NRC questions in only 8 months (May 2025 – January 2026)
 - NRC completed its Environmental Assessment ahead of schedule in May 2026, concluding with a Finding of No Significant Impact (FONSI)
 - Dow and X-energy received first ever Environmental Assessment for a commercial nuclear power reactor
- **Construction Permit issuance anticipated by Q1 of 2027**

Note: "CPA" = Construction Permit Application; "CP" = Construction Permit; "DSER" = Draft Safety Evaluation Report; "FSER" = Final Safety Evaluation Report; "ASER" = Advanced Safety Evaluation Report; "EA" = Environmental Assessment; "FONSI" = Finding of No Significant Impact; "PSAR" = Preliminary Safety Analysis Report

X-energy has a differentiated business model

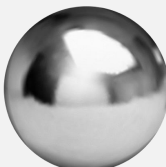


Total \$7.5M – \$14.8M revenue per MW over a project's lifespan | \$2.4B – \$4.7B per 320 MWe plant

We plan to begin generating revenue from the inception of a project and continue generating revenue over its anticipated 60-year life

Note: Amounts are based on estimated cumulative revenues over the anticipated 60-year life of the reactor; Dollar figures rounded to closest billions, millions, or thousands unless otherwise noted; Percentages rounded to nearest 5%; The illustrative unit economics presented are estimates only, reflecting management's current expectations and based on numerous assumptions. The illustrative unit economics presented may not be realized, and actual results could differ materially from the illustrative estimates presented

... and benefits from recurring revenue streams

		Offerings	Timing	Recurring	Detail	
1	Reactor		Technology Fees	Pre-COD	-	Earned across various project development milestones pre-COD
			Services	Pre-COD / Post-COD		Lifecycle offerings spanning project planning, assembly coordination, construction support, regulatory support, procurement support, and lifecycle services
2	Fuel		TRISO-X Fuel Fabrication	COD / Post-COD		- Plans to fabricate TRISO-X fuel using a proprietary method - Initial and subsequent fuel loads provided to our Xe-100 customers throughout the anticipated 60-year operational life

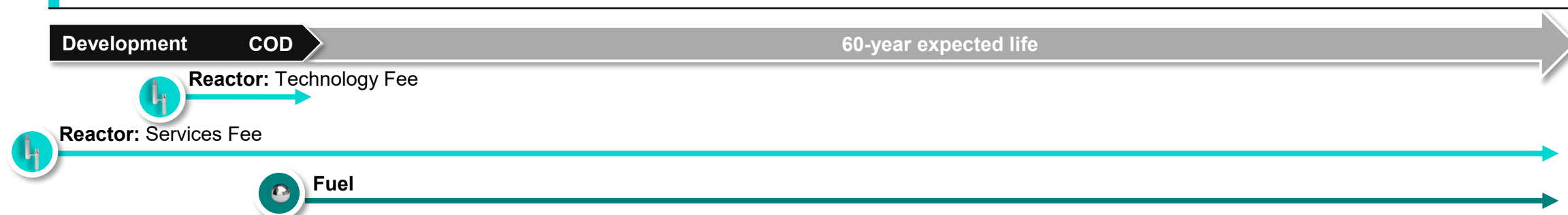
X-energy operates an intellectual property-driven nuclear reactor and fuel business

Note: One Xe-100 Plant consists of four 80 MWe reactors, for a total capacity of 320 MWe

Xe-100 unit economics

Each four-reactor Xe-100 plant is expected to generate ~\$2.4bn – \$4.7bn in revenue throughout its lifecycle

Expected Reactor Revenue Timeline



	Reactors: Technology fee	Reactors: Services	Fuel <i>Includes initial fuel load and subsequent fuel fabrication services</i>	Total
Revenue (\$mm)	\$50 - \$300	\$800 - \$1,300	\$1,560 - \$3,125	\$2,410 – \$4,725
Costs (\$mm)	-	\$565 - \$930	\$1,095 – \$1,250	\$1,660 – \$2,180
Gross Margin (\$mm)	\$50 – \$300	\$235 - \$370	\$465 – \$1,875	\$750 – \$2,545
Margin	100%	20-30%	30% - 60%	30% - 55%

Source: X-energy Corporate Model

Note: Dollar figures in millions unless otherwise noted; Dollar figures rounded to nearest \$5 million; Percentages rounded to nearest 5%; The illustrative unit economics presented are estimates only, reflecting management's current expectations and based on numerous assumptions

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ARDP award and ongoing funding validates our technology progress and creates a build cost and speed moat

Advanced Reactor Demonstration Program



U.S. DEPARTMENT
of ENERGY



X-ENERGY

Category	Cost Share Structure			Ultimate Owner
	X-energy	DOE	Dow	
 Design & Regulatory	50%	50%	--	X-ENERGY <i>X-energy owns 100% of the reactor IP¹</i>
 TX-1 Fuel Fabrication Facility	50%	50% <i>In addition to the DOE funding, X-energy awarded a ~\$150mm ITC²</i>		X-ENERGY <i>X-energy owns 100% of facility</i>
 First of a kind (FOAK) Xe-100 “4-reactor design”	--	50%	50%	 <i>Dow owns 100% of plant</i>

Note: One Xe-100 Plant consists of four 80 MWe reactors, for a total capacity of 320 MWe

¹ Conventional island intellectual property and IP for equipment and processes that sit outside both nuclear and conventional plant areas will be owned by Dow

² ITC refers to the 48C Qualifying Advanced Energy Project Credit

Growth strategies

Continue to Develop our Next Generation Technology

- Goal of achieving commercial delivery of our first fleets of reactors by the early 2030s
- We have produced TRISO fuel in kilogram batch quantities and have begun construction on our first commercial fuel fabrication facility

Execute on Attractive Business Development Pipeline

- We are initially focused on deploying our advanced SMRs to both industrial and data centers
- We also plan to serve traditional utilities seeking to replace carbon-intensive fossil-fueled power plants in their jurisdictions

Leverage Repeated Project Execution Learnings to scale from FOAK to NOAK

- Starting with Dow and Amazon, X-energy is already working to deliver eight reactors across sites at Seadrift, TX and Richland, WA
- With substantial further targeted pipeline with Amazon and Centrica, we expect to be able to achieve reductions in costs

Continue Geographic Expansion

- Our initial core markets the United States, Canada and the United Kingdom have sophisticated regulators
- We already have customer engagement in new markets, including Eastern Europe, the Middle East, and East Asia

Drive Technology Advancements

- Using our innovative technology platform, we believe that we are well-positioned to continue making technology advancements
- Improvements include optimizing the Xe-100 for industrial heat applications to support more efficient hydrogen production processes

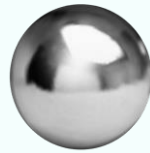
X-energy's value proposition

1

Industry Leading Technology



Xe-100¹



TRISO-X fuel

- ✦ **Clean:** Virtually zero carbon emission during operations
- ✦ **Safe:** Intrinsic safety features
- ✦ **Reliable:** 95%+ availability expected
- ✦ **Scalable:** Optimized four-reactor design

2

Differentiated Platform

- ✦ Strong base of customers & partners



amazon



- ✦ Government cost share on FOAK project



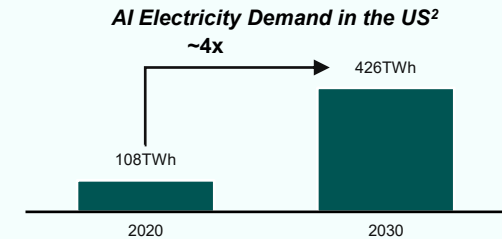
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Advanced Reactor Demonstration Program

3

Compelling Market Position

- ✦ Generational power demand growth...



- ✦ ...that X-energy is well positioned to serve

✓
Baseload Power

✓
Scalable

✓
Clean

¹ Figure is intended to represent an illustrative rendering and is for illustrative purposes only

² IEA – Energy and AI Report (April 2025)

