

X·ENERGY

October 2026

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FORWARD-LOOKING STATEMENTS

This presentation and related management commentary contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Such statements can be identified by the fact they do not relate strictly to historical or current facts. Words such as "anticipate," "believe," "expect," "intend," "may," "plan," "potential," "project," "will," "would," 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; our milestones roadmap; our design features and capabilities; our expectations regarding reaching commercialization and expected timing; our construction and fuel fabrication plans; our expectations regarding receipt of regulatory approvals; the expectation that the DOE will modify the Company's ARDP award amount; our planned fee-based services and business model; expected total addressable market, serviceable addressable market, expected unit economics and revenue potential; our competitive advantage; our ability to derisk the supply chain; ways we plan to win; and future business outlook.

These forward-looking statements are neither promises nor guarantees and are subject to a number of risks, uncertainties, and assumptions. Actual results may differ materially as a result of a number of factors, including, without limitation, 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 (including the ARDP) or regulatory licenses; the risk that the DOE does not modify X-energy's ARDP contract to increase the funding amount due to administrative changes or other risks; cost, schedule, and economic uncertainties from inflation, supply chain constraints (including our customers' access to HALEU and graphite), 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; funding long lead time procurement items; 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. The foregoing list of factors is not exhaustive. Additional information concerning these and other factors can be found in the section entitled "Risk Factors" in our most recent Form 10-Q filing with the Securities and Exchange Commission ("SEC") and in subsequent filings we make with the SEC.

Caution must be exercised in relying on these and other forward-looking statements. Due to known and unknown risks, our results may differ materially from our expectations and projections. Any forward-looking statements made herein speak only as of the date of this presentation, and you should not rely on forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, performance or achievements reflected in the forward-looking statements will be achieved or will occur. Except as required by law, X-energy does not undertake any obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

INDUSTRY AND MARKET DATA

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.

X-energy is a leader in the advanced nuclear space



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

Ideal solution for emerging industrial demand and AI

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

Supported by blue-chip customers and partners

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

First projects underway and in advanced stages of regulatory review

~11.5 GW of identified projects with first three customers / partners²

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

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

The financial and human capital required to execute

\$1.9B of liquidity (total cash & cash equivalents, short- and long-term investments) as of June 30, 2026

>1,000 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

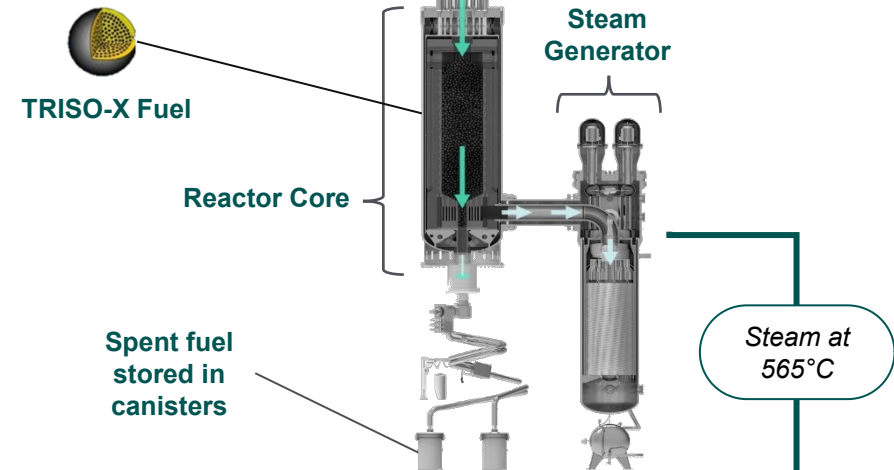
Designed to ramp down from full power to 40% in minutes and vice versa

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

² Figure is intended to represent an illustrative rendering and is for illustrative purposes only

Xe-100 Schematic (Illustrative)²

NUCLEAR ISLAND



CONVENTIONAL ISLAND



Power Generation

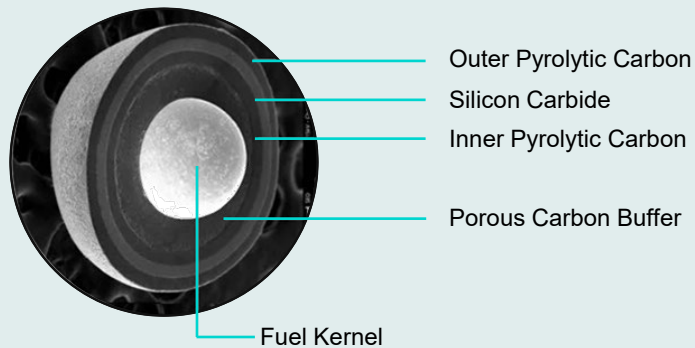


Process Heat

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



~220,000 pebbles form the core of each Xe-100 reactor

Proprietary fabrication methods

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

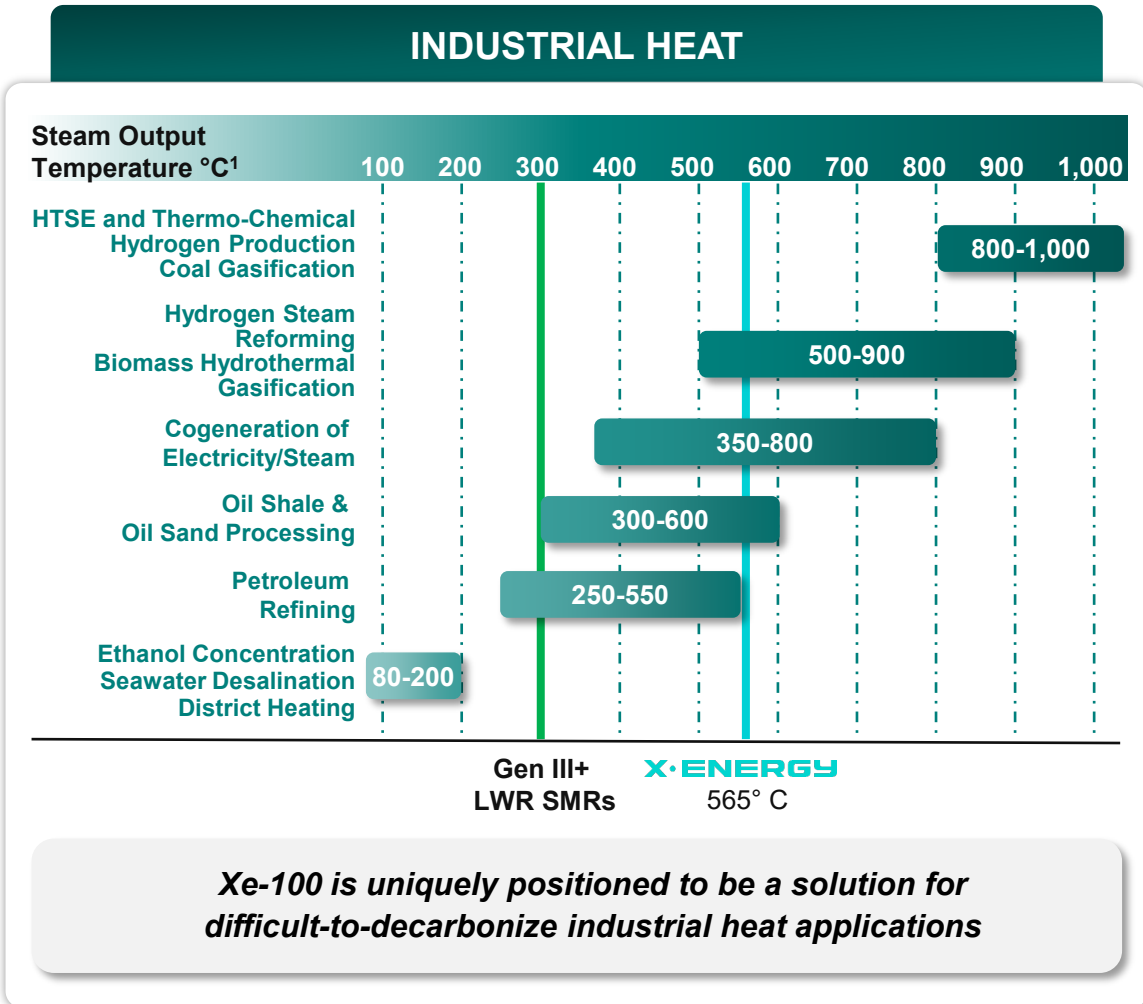
✖ At Scale

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

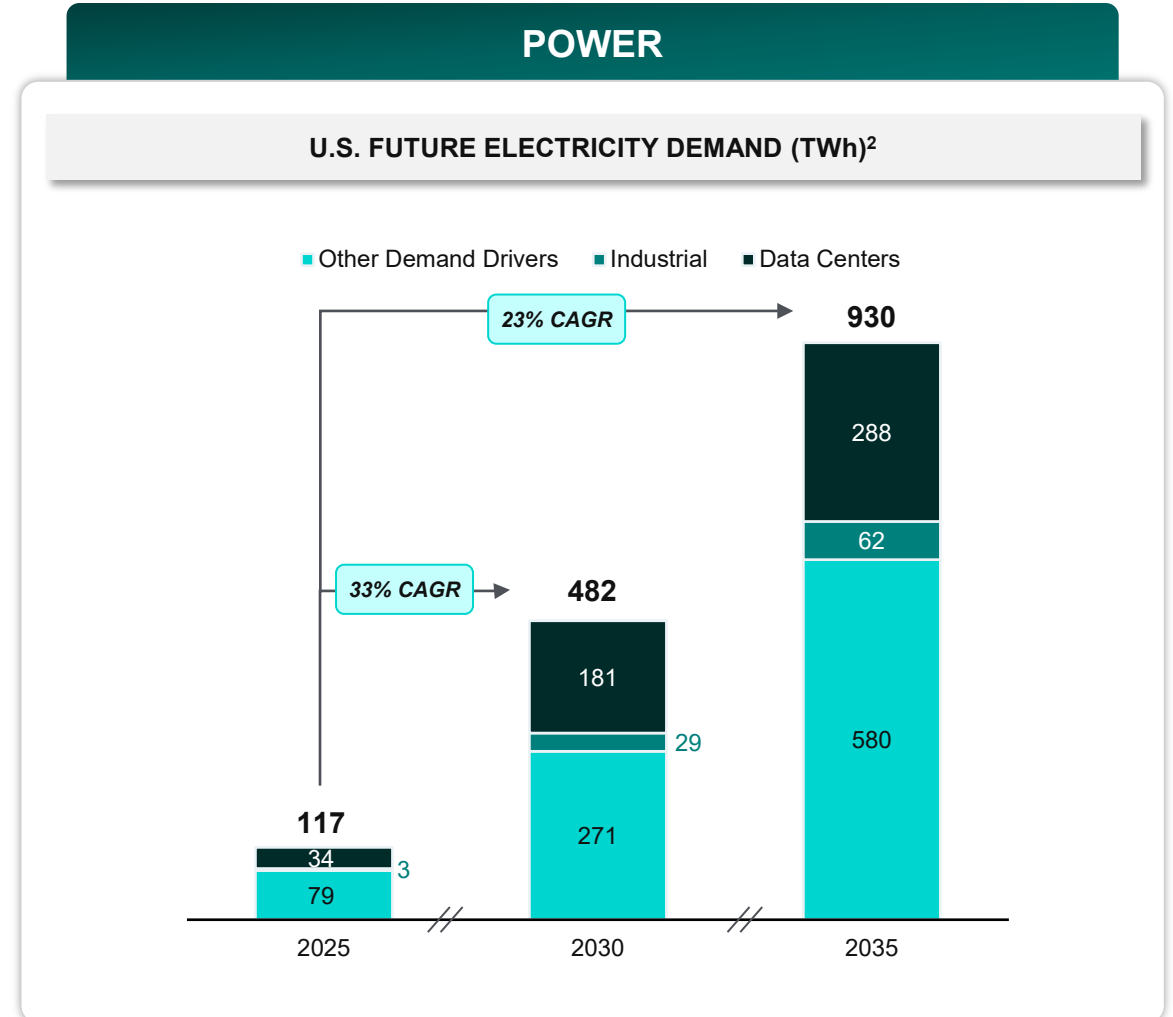


TX-1

Xe-100 versatile design can be applied to end markets including industrial heat & conventional power generation



+



¹ Steam output temperatures based on respective SMR technology and selected public company disclosures

² BNEF New Energy Outlook 2025; Base case year of 2024

X-energy's recent strategic developments

Projects



Received continuation application approval from the U.S. Department of Energy's Advanced Reactor Demonstration Program (ARDP), extending budget period through March 2027, and notification that X-energy's ARDP Cooperative Agreement is expected to receive up to an additional \$1B for a total of \$2.15B



TRISO-X announced a 70-acre land acquisition to support the continued development and expansion of its Oak Ridge nuclear fuel campus, commencement of TX-1 interior buildout, and completion of TX-1 vertical construction

Regulatory



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 in Oak Ridge

NRC completed its Environmental Assessment for the Dow Construction Permit Application ahead of schedule, concluding with a Finding of No Significant Impact (FONSI)

Supply Chain



X-energy and SGL announced binding agreement which includes the doubling of SGL's production capacity in the EU for nuclear-grade graphite to support the Xe-100 commercial pipeline



X-energy signed a Definitive Agreement with Centrus Energy Corp. for long-term enrichment services for the supply of High-Assay Low-Enriched Uranium (HALEU) and Low-Enriched Uranium (LEU) to support Xe-100 deployment



Signed a Definitive Agreement with General Matter for HALEU enrichment services, further derisking Xe-100 deployment



Signed a Memorandum of Understanding 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

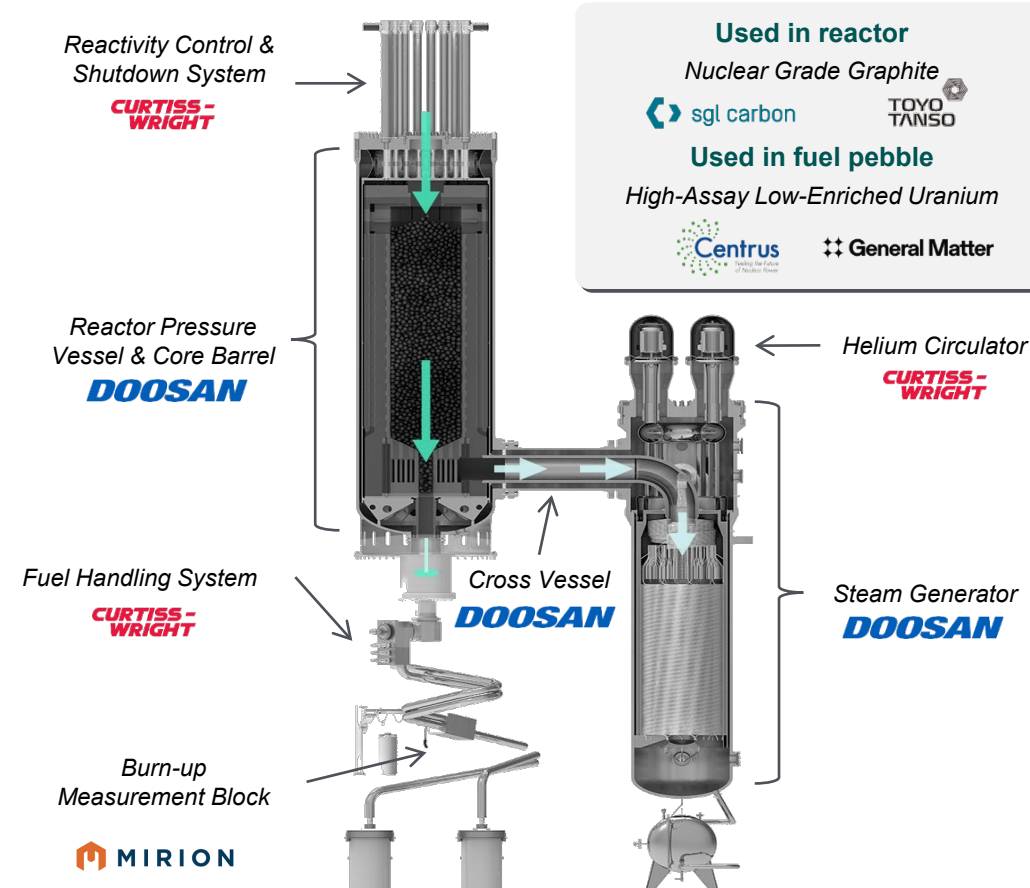
Key near-term milestones

 Completed  Update

Milestone	Timing
TX-1 License Issuance	NRC completed review and approved in Feb 2026 (ahead of schedule)
Dow Environmental Assessment Issuance	NRC completed review and approved in May 2026 (ahead of schedule)
Announce HALEU Supply Agreements	Q3 2026
TX-1 Interior Buildout Commencement	Q3 2026
TX-1 Vertical Construction Completion	Q3 2026
Xe-100 UK GDA Commencement	Q3 2026
Announce Next 1 GW Project (site identified & JDA signed)	YE 2026
Dow Construction Permit Issuance	Q1 2027
Energy Northwest Construction Permit Submission	1H 2027

Executing on our supply chain strategy – debottlenecking critical components and enabling suppliers to scale

Xe-100 key components



X-energy supply chain strategy

- Establishing an extensive, global supply chain ecosystem and de-risking Xe-100 deployment via early engagement
- Working with suppliers in all phases of design, equipment supply, fabrication, and construction
- Leveraging strong balance sheet to reserve capacity and enable supplier capacity expansions

Select supply chain announcements

Mirion Burn-up Measurement System 2023		IHI Nuclear-Grade Components Centrus High-Assay Low-Enriched Uranium General Matter High-Assay Low-Enriched Uranium 2026
2022 Curtiss-Wright Nuclear Steam Supply System	2025 Doosan Main Power System Toyo Tanso Fine-Grain Graphite Amazon / Doosan / KHNP Supply Chain Capacity Expansion	

TX-1 construction progress

Set to become the first-ever NRC Category II nuclear fuel facility in the U.S.

TX-1

- Anticipated capacity of 6.25 MTU with throughput of 5 MTU, enough to support up to 11 Xe-100 reactors annually
- **Vertical Construction:** Completed on time in 3Q 2026
- **Interior Buildout:** Commenced on time in 3Q 2026
- **Commercial Operation:** Targeting operations beginning in first half of 2028

As of September 23, 2026

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TRISO-X Oak Ridge campus

TX-1

TX-2

- Planned location on same footprint as TX-1, covered by existing NRC Part 70 license
- Anticipated capacity of 25 MTU with throughput of 20 MTU, enough to support up to 44 Xe-100 reactors annually
- Currently in design phase

TX-L

- Planned R&D laboratory for TRISO-X fuel development
- Relocation of TRISO-X pilot facility that was previously at Oak Ridge National Laboratory
- Site preparation underway

As of September 23, 2026

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
- Construction permit issuance expected by Q1 2027

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)
- Construction permit submission expected in 1H 2027

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
- Xe-100 accepted into UK Generic Design Assessment in Q3 2026

Mid-2030s²

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

² Expected timeline to completion

Commercial regulatory pathway flows through the NRC

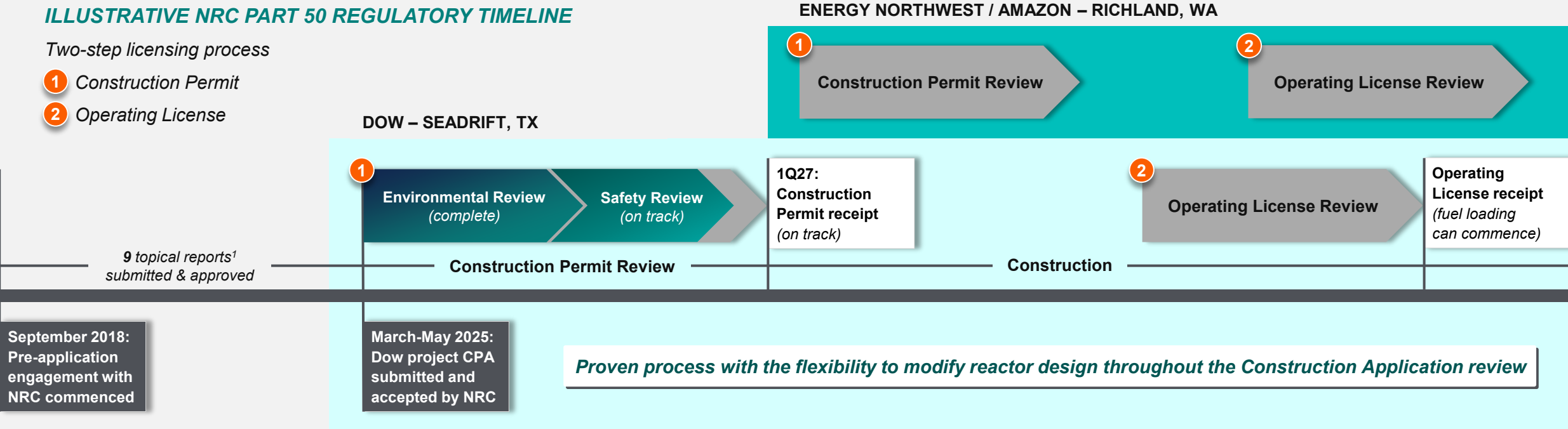
X-energy expects to receive the Construction Permit for its first project with Dow by 1Q27, after which nuclear construction may begin

- For first-of-a-kind deployments, X-energy intends to pursue **NRC Part 50** licensing pathway, consisting of a **Construction Permit** and an **Operating License**
- **Construction Permit Application** submitted in March 2025; 18-month schedule received in June 2025
 - Application includes Environmental Report and Preliminary Safety Analysis Report reflecting preliminary design with Principal Design Criteria
 - NRC completed its Environmental Assessment ahead of schedule in May 2026; Safety Review remains on track
- **Operating License Application** development currently underway – to be submitted ahead of reactor commissioning
- For nth-of-a-kind deployments, X-energy anticipates licensing schedule compression (e.g., Part 52 with Standard Design / Early Site Permit, Part 53)

ILLUSTRATIVE NRC PART 50 REGULATORY TIMELINE

Two-step licensing process

- 1 Construction Permit
- 2 Operating License



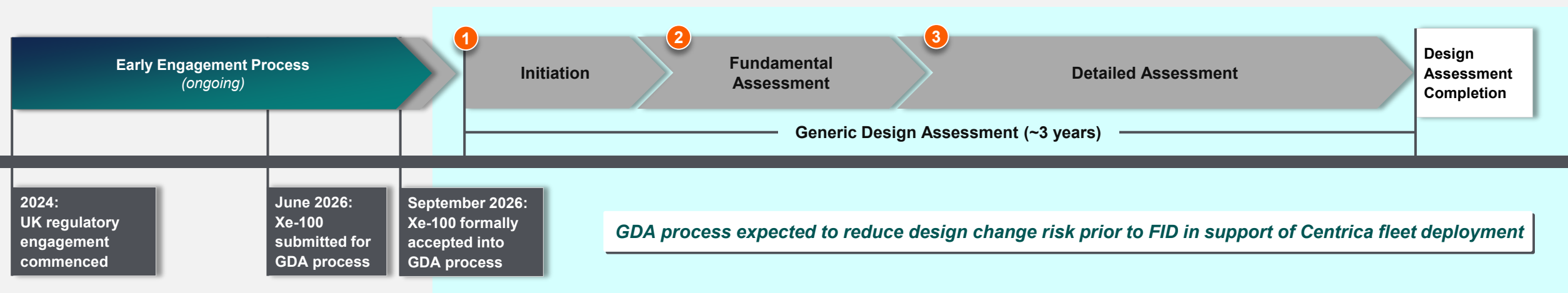
¹ Topical reports submitted and approved before application submittal; total of 15+ topical reports submitted and approved to date along with 10+ white papers filed

UK commercial licensing underway to support Centrica

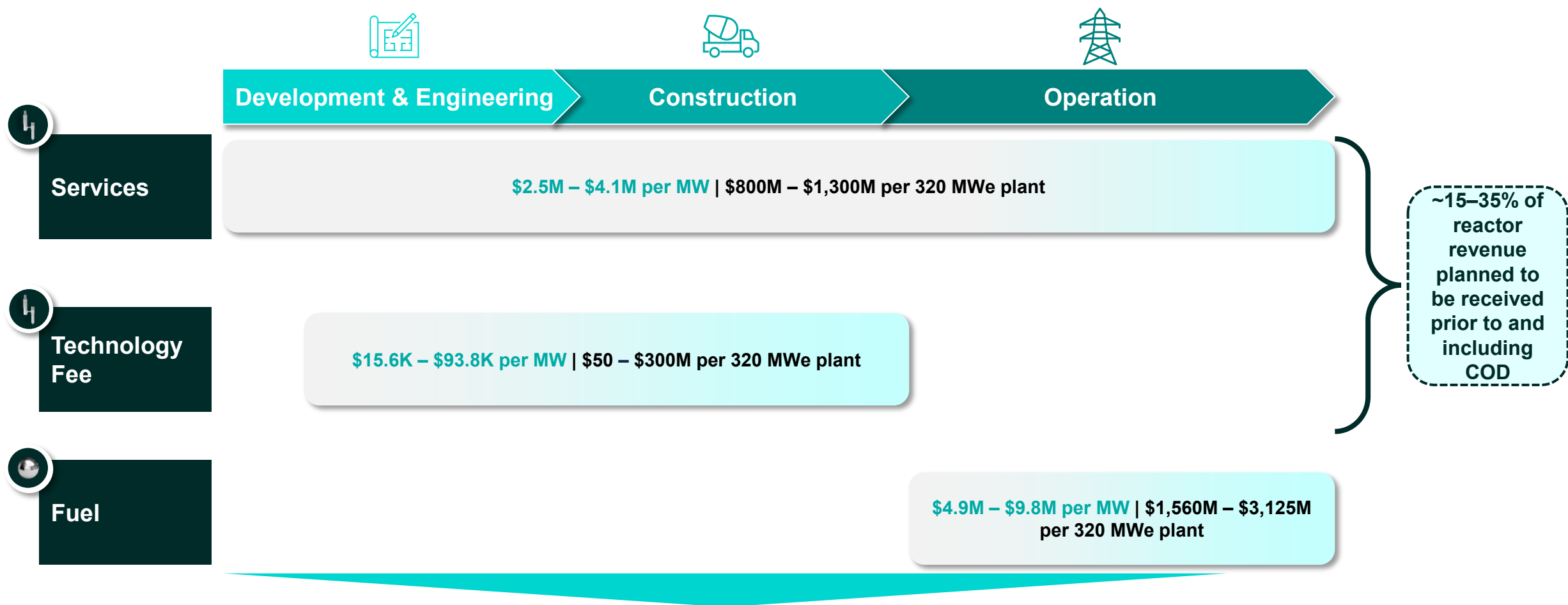
X-energy's Xe-100 has been accepted into the United Kingdom's Generic Design Assessment (GDA) process

- The GDA is a **voluntary design review** submitted to the UK Office for Nuclear Regulation, the Environment Agency, and Natural Resources Wales
 - As a precursor to site licensing, the GDA conducts a one-time, site-independent evaluation of the safety, security, and environmental case of a design
 - X-energy anticipates a timeline of ~3 years, shorter than historical, as actual timeline will depend on design maturity and NRC carry-over work
- GDA includes **three-steps** following acceptance into the process:
 - 1 **Initiation** – determination of scope and schedule
 - 2 **Fundamental Assessment** – regulatory assessment of design's safety, security, safeguards, and environmental case
 - 3 **Detailed Assessment** – deep technical review performed with a public consultation
- Three-step GDA process ends with a **Decision Document** or a GDA Step 3 Statement

ILLUSTRATIVE UK GENERIC DESIGN ASSESSMENT TIMELINE



X-energy has a differentiated business model

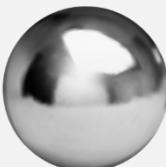


Total \$7.5M – \$14.8M revenue expected per MW over a project’s lifespan | \$2.4B – \$4.7B expected per 320 MWe plant

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

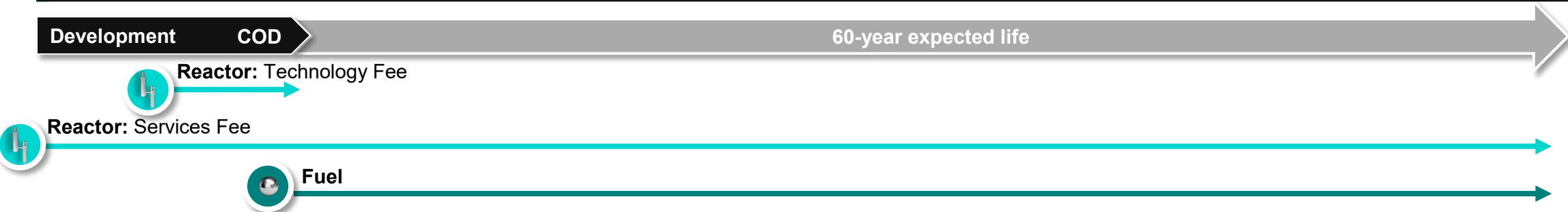
X-energy operates an intellectual property-driven nuclear reactor and fuel business

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. The illustrative unit economics presented may not be realized, and actual results could differ materially from the illustrative estimates presented.

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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

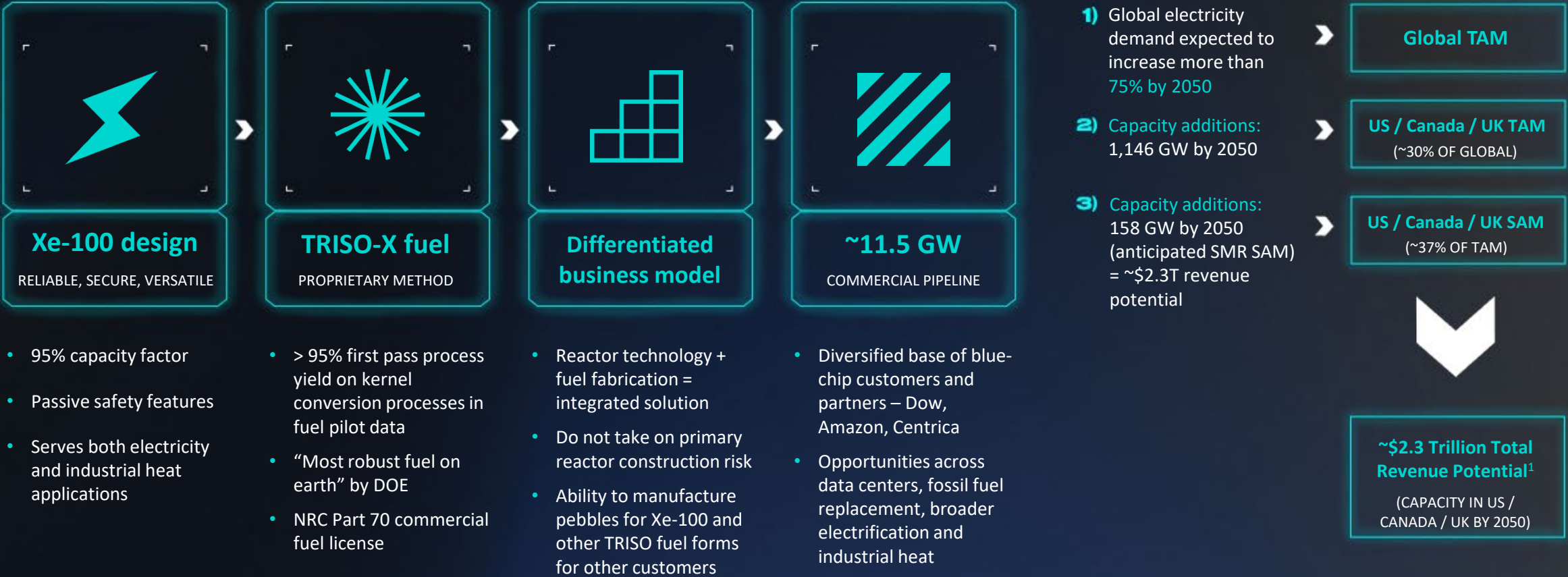


Category	Cost Share Structure			Ultimate Owner
	X-energy	DOE	Dow	
 Design & Regulatory	50%	50%	--	X-ENERGY <i>X-energy owns 100% of the reactor IP¹</i>
 TX-1 Fuel Fabrication Facility	50%	50% In addition to the DOE funding, X-energy awarded a ~\$150mm ITC²		X-ENERGY <i>X-energy owns 100% of facility</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
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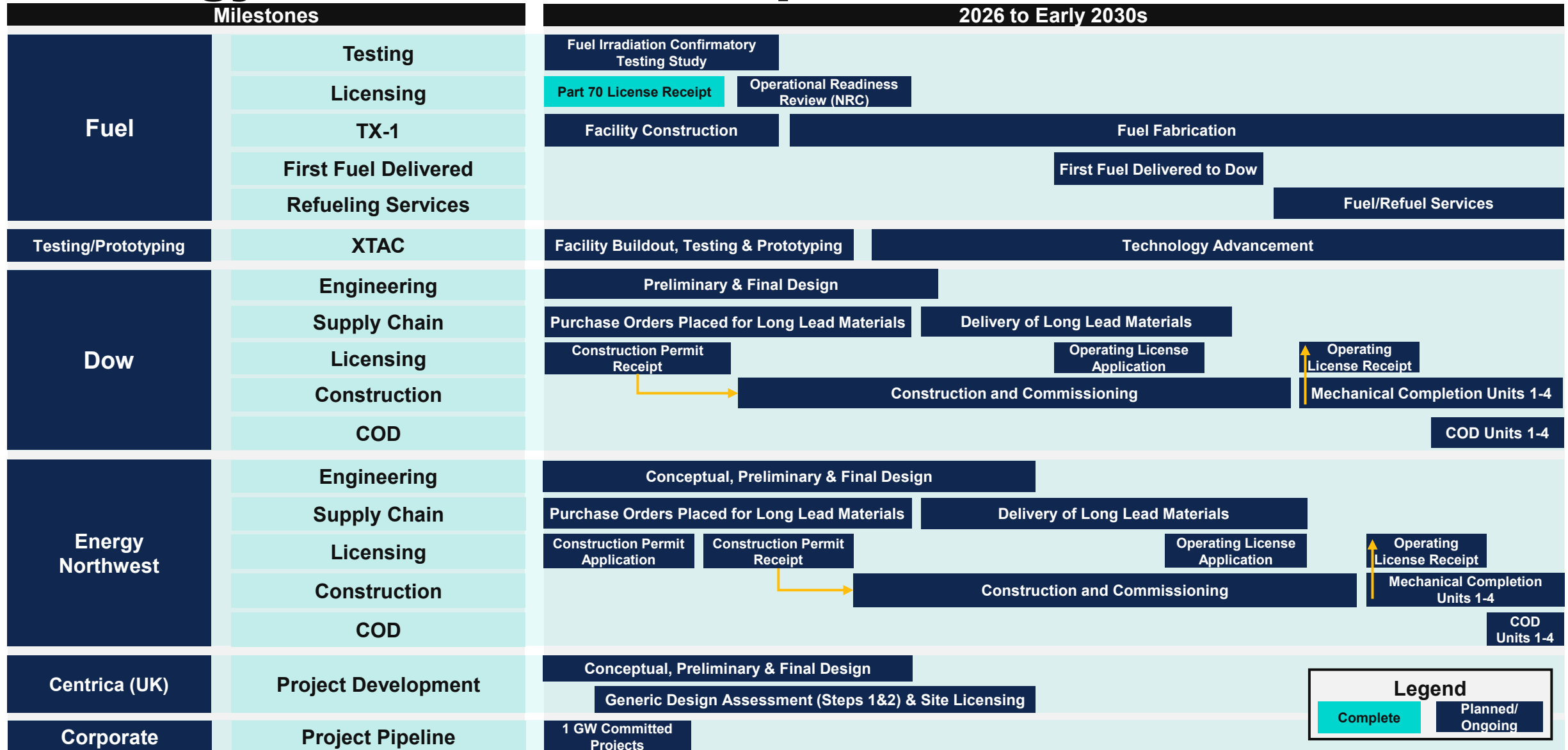
Multiple ways to win

Why we believe that we will be a clear leader



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
TAM= Total Addressable Market; SAM= Serviceable Addressable Market

X-energy milestones roadmap



Note: Milestones in this illustrative schedule are not projections or predictions, but represent goals that are forward-looking and subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond the control of the Company and management, and are based on assumptions that are subject to change. Actual results may vary, and these variations may be material. Nothing in this presentation should be regarded as a representation that the milestones in this illustrative schedule will be achieved, and the Company undertakes no obligation to update these milestones.

