



SMALL MODULAR REACTORS · PLAIN AND SIMPLE

# SMR Trends 2026

Demand is solved. Delivery is not. Eight trends in small modular reactors, and what they mean for investors, utilities and anyone building data centers.

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**80x**

more SMR capacity announced than is being built

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**2030**

earliest grid power from a Western grid-scale SMR

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**\$110-115**

per MWh Microsoft is estimated to pay for restarted nuclear

# Welcome

**S**mall modular reactors have gone from science project to boardroom agenda in two years. The world's biggest technology companies are signing nuclear deals to power AI, and governments are writing checks. This short guide tells you what is really happening, in about fifteen minutes.

It is the illustrated companion to our full paper, **SMR Trends 2026** (26 pages, free at [go-ibr.com](https://go-ibr.com)). Every number here is sourced in the full paper. Where a figure was still being checked when we wrote it, we mark it with an asterisk.\*

## Investors

Count binding money, not announced gigawatts.

## Utilities

Brownfield sites, multi-unit order books and shared risk are what work.

## Data center builders

Plan in layers: grid and gas this decade, nuclear options for the next.

## ■ Contents

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Demand is solved; delivery is not

### 02 What Is Holding SMRs Back

Order books and fuel

### 03 Cost and the Case for Nuclear

What buyers already pay, and why land and carbon matter

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Time to power, new grid rules and seven questions to ask

### 05 Our Calls

Nine dated predictions you can hold us to

*\* Information was being verified at the time of writing but is not 100% certain.*

## CHAPTER 1

# The Big Picture

Everyone wants SMRs. Very few are being built.

**T**wo years ago the question was whether anyone would buy small modular reactors. That is answered. Meta, Amazon, Google and Microsoft have announced nuclear deals of more than 18 gigawatts.

### Demand is solved. Delivery is not.

Western SMR pipeline by stage, GW (North America and Europe, October 2026)



Source: GO-IBR.com Research SMR contracts ledger (Market Guide v1.1), updated October 2026. Base case is our assessment.

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**Figure 1.** Western SMR pipeline by stage. About 57.6 GW is in frameworks and memoranda; only 0.7 GW is under construction.

### IN PLAIN ENGLISH

An SMR is a nuclear power plant built smaller, typically 50 to 470 megawatts, so that more of it can be made in factories and repeated. The idea is to build them like aircraft, not cathedrals.

## 0.7 GW

under construction in North America and Europe

## ~4 GW

our base case for SMRs operating there by 2035

## 3

Western SMR projects physically being built: Darlington, Kemmerer, Hermes 2

■ **Big Tech buys today's nuclear now, and SMRs for later**

Hyperscalers have locked up most of the existing nuclear plants they can, including restarts of shut-down reactors. Their SMR deals are mostly options: they fund development and reserve capacity, but can walk away if costs or schedules slip.

**Big Tech buys today's nuclear now and SMRs for later**

Selected hyperscaler nuclear deals by type, GW (announced capacity, not all binding)

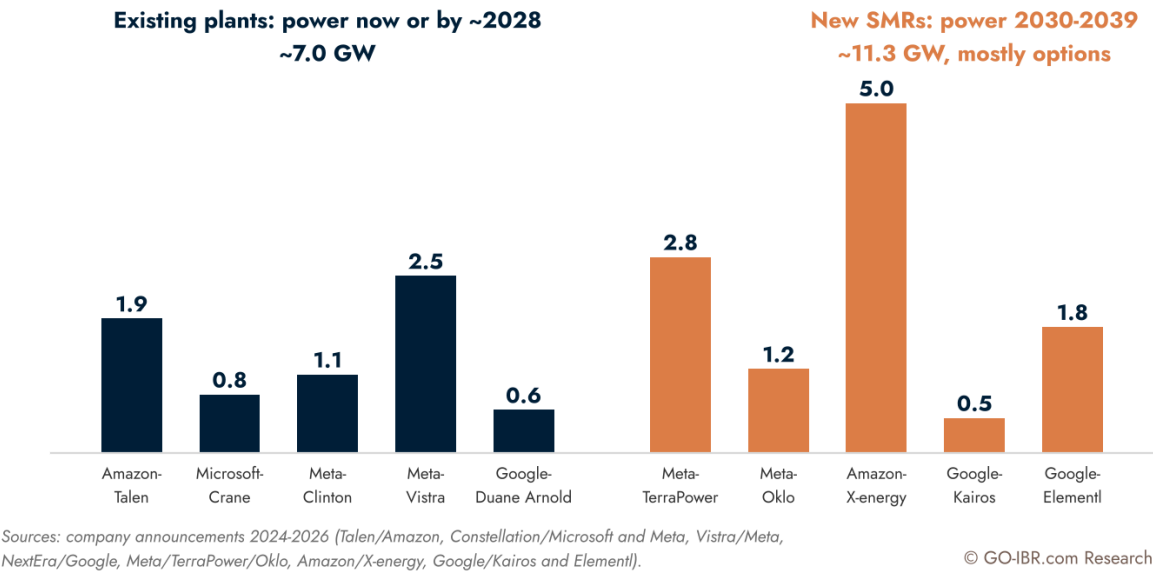


**Figure 2.** Selected hyperscaler nuclear deals. Navy: existing plants. Orange: new SMRs, mostly options.

**OUR ASSESSMENT**

Big Tech has removed the demand risk from SMRs, not the delivery risk. Read headline gigawatts as options, not orders.

## CHAPTER 2

# What Is Holding SMRs Back

Not the technology, and no longer the regulators. Order books and fuel.

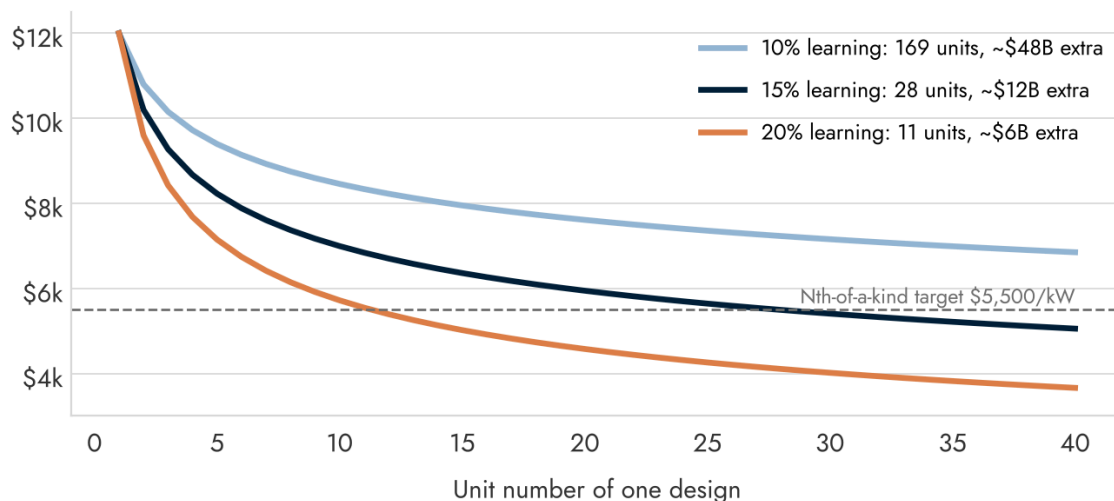


The promise: reactors built like aircraft, in factories, one design repeated many times.

**T**he first SMR of any design is expensive. Costs only fall if the same design is built again and again, and nobody wants to pay for unit one.

### The learning rate decides whether the valley is fundable

Overnight cost per kW by unit number, 300 MWe units, from \$12,000/kW



Source: GO-IBR.com Research, *The Order-Book Bottleneck* (October 2026). Excludes financing; illustrative.

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**Figure 3.** The learning valley. At 15% learning, one design needs about 28 units and \$12 billion of extra cost to reach \$5,500/kW.

### WHO IS PULLING AHEAD

The designs with real multi-unit order books: **GE Vernova Hitachi BWRX-300** (Ontario, Tennessee, Poland, Sweden) and **Rolls-Royce SMR** (UK, Czechia, Sweden).

## ■ Fuel is the quiet chokepoint

Many advanced reactors need HALEU, uranium enriched to between 5% and 20%. Russia was the only commercial seller. The US is building its own supply, but slowly.

### Fuel is the quiet chokepoint

HALEU: DOE's estimated need by 2030 vs. US output so far, metric tons



NEA: 30 of 74 designs analyzed need HALEU; 47 use fuel not yet commercially available.

Sources: US DOE (2021 estimate, >40 t by 2030); Centrus Energy (>1.9 t cumulative from Pikeston demo, mid-2026); NEA SMR Dashboard (2025).

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**Figure 4.** HALEU needed by 2030 (DOE estimate) against US output so far.

#### OUR ASSESSMENT

Through 2022, fuel favors water-cooled SMRs that burn ordinary uranium. Advanced designs with signed fuel deals are investable; designs without a named fuel source should be discounted.



The fastest route: old coal and nuclear sites, with grid connections, water and a workforce already in place.

#### REGULATORS ARE SPEEDING UP

The US NRC issued construction permits for TerraPower's Kemmerer plant (March 2026) and TVA's Clinch River BWRX-300 (September 2026), and its new Part 53 rule took effect in April 2026. Risk has moved from the regulator to the construction site.

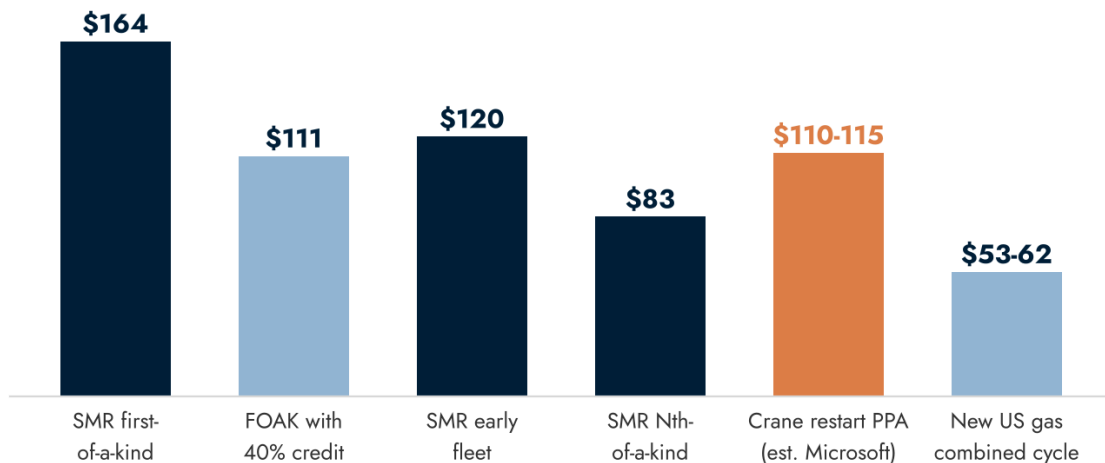
# Cost and the Case for Nuclear

The price gap is closing from the buyer's side.

**A** first SMR costs about \$164 per megawatt-hour in our model, against about \$53 to \$62 for new gas. But buyers are already paying far more than gas for firm, low-carbon nuclear power.

## The price gap is closing from the buyer's side

Unsubsidized SMR cost at 7% WACC vs. what buyers already pay, \$/MWh



Sources: GO-IBR.com Research LCOE model (2026 \$); Jefferies estimate for Crane PPA (analyst estimate, terms undisclosed); Lazard LCOE+ 2026; EIA/BNEF gas costs.

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**Figure 5.** SMR cost against what buyers already pay. The Crane figure is an analyst estimate.

**"Demand is solved. Delivery is not."**

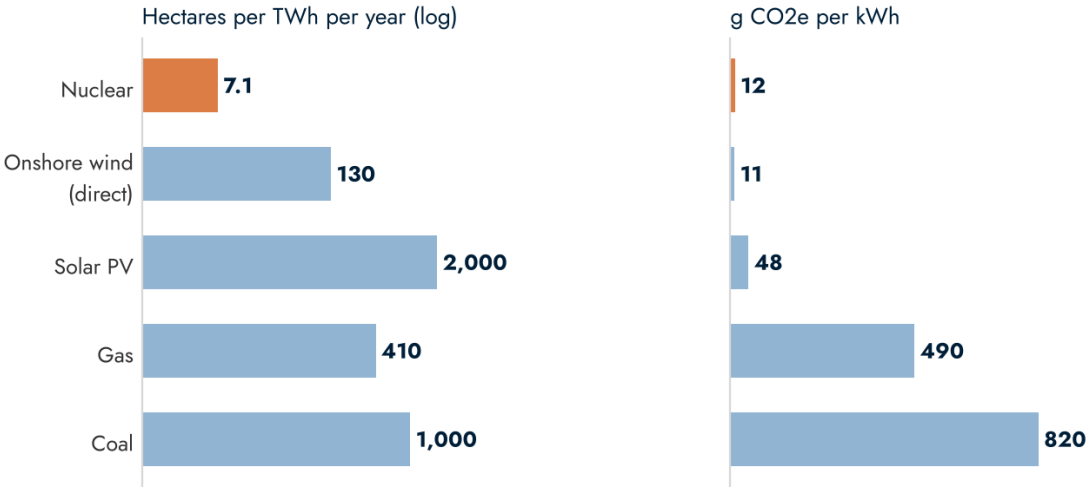
The one line to remember from this guide

■ **The sustainability case is stronger than the cost case**

Nuclear needs a fraction of the land of solar or wind for the same energy, and its lifecycle carbon is among the lowest of any source. That is why buyers with round-the-clock carbon-free targets pay a premium for it.

**The sustainability case is stronger than the cost case**

Land per unit of energy and lifecycle carbon, by source



Sources: Lovering et al., PLOS ONE (2022), median land-use intensity; IPCC AR5 WGIII Annex III lifecycle medians.

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**Figure 6.** Land and lifecycle carbon by source.

**TWO CAVEATS**

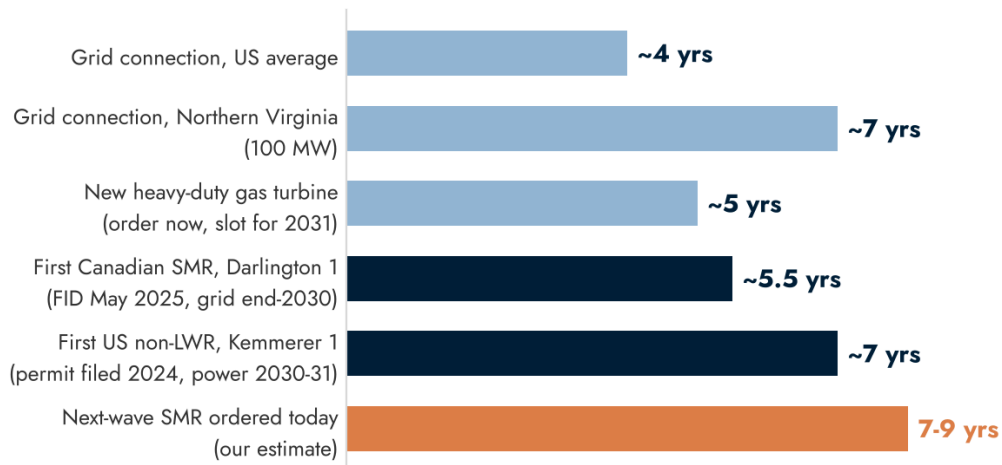
Some advanced fuels create waste that existing disposal plans were not designed for, and siting reactors near towns needs genuine local consent.

# For Data Center Builders

Your binding constraint is not chips or buildings. It is power.

## For a data center, every route to firm power is slow

Years from decision to power, typical or reported (October 2026)



Sources: JLL 2026 Global Data Center Outlook (grid); GE Vernova Q2 2026 (turbine slots for 2031); OPG; NRC; TerraPower. GO-IBR.com Research analysis.

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**Figure 7.** Years from decision to power. Every route to firm power is slow.

| Window            | Realistic firm power                                                | Indicative cost                  |
|-------------------|---------------------------------------------------------------------|----------------------------------|
| <b>2026-2029</b>  | Grid where available; on-site gas engines; batteries                | Market plus on-site premium      |
| <b>2028-2031</b>  | New gas if you hold a turbine slot; the last existing-nuclear deals | ~\$55-65 gas; ~\$110-115 nuclear |
| <b>2030-2035</b>  | First SMR units, if schedules hold                                  | ~\$110-165 per MWh               |
| <b>After 2035</b> | Fleet SMRs, if order books form                                     | ~\$80-120 per MWh                |

## ■ Grid rules are changing against waiting

### United States

Large-load tariffs: separate customer classes, ten-year-plus contracts, minimum bills. FERC set PJM co-location rules in June 2026.

### Great Britain

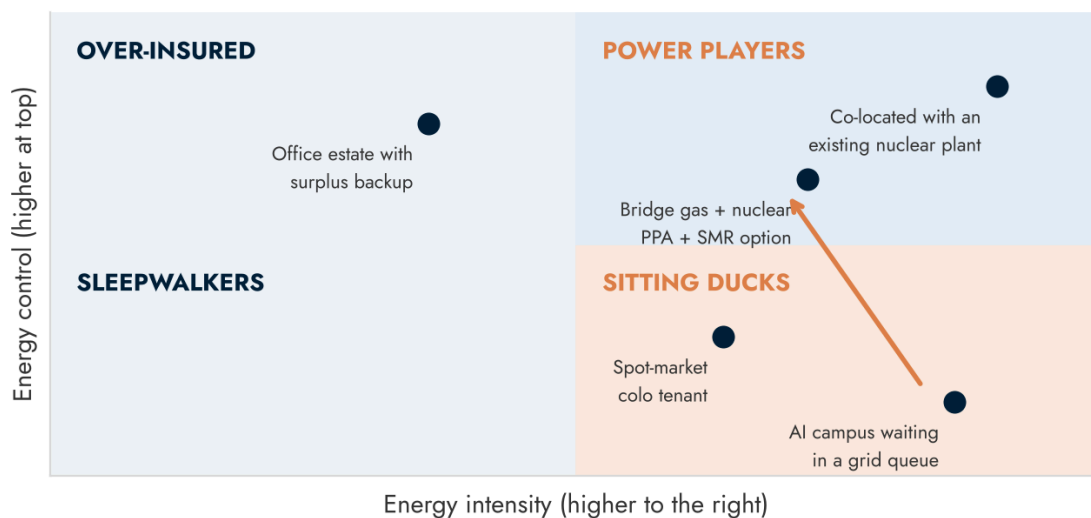
Ofgem consulted on a refundable commitment fee of about £237,500 to £712,500 per MW to hold a grid connection.

### Ireland

New data centers must bring dispatchable capacity matching their import, and match 80% of demand with new Irish renewables.

## Where data center builders sit on the Power Position Matrix

Energy intensity vs. energy control (framework from Energy for Executives: Your Power Position)



Framework: Fas Mosleh, *Energy for Executives: Your Power Position*. Placement of strategies is GO-IBR.com Research's illustration.

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**Figure 8.** The Power Position Matrix, from Fas Mosleh's *Energy for Executives: Your Power Position*. The move that matters is upward, from waiting in a queue to controlling supply.

## ■ Seven questions to ask any SMR developer

- ☐ Is the order binding? Who has put in equity or a deposit?
- ☐ Pre-application, docketed, permitted, or licensed to operate?
- ☐ Is first-core and reload fuel contracted, and is it HALEU?
- ☐ Who is the construction contractor, and is the price fixed or capped?
- ☐ What happens to your contract if power is two or four years late?
- ☐ Is the site a brownfield with an existing grid connection?
- ☐ Who carries the first dollar of cost overrun?

### CHAPTER TAKEAWAY

Treat SMRs as the third leg of a bridge strategy, not the first. Secure grid and on-site power for 2027 to 2030, take an **equity-light option** on SMR capacity for the early 2030s from a developer with a permitted brownfield site and contracted fuel, and **write delay remedies into every agreement**.

## ■ Chapter 5 · Our calls

| Call                                                         | Check by  | Confidence |
|--------------------------------------------------------------|-----------|------------|
| Darlington 1 is the first Western grid-scale SMR on the grid | Mid-2031  | 70%        |
| China's Linglong One reaches first criticality               | June 2027 | 70%        |
| No binding TVA-ENTRA1 power deal over 1 GW                   | End-2027  | 60%        |
| A hyperscaler funds construction of a specific SMR unit      | End-2027  | 60%        |
| Western SMRs under construction reach 2 GW                   | End-2028  | 55%        |
| About 4 GW of SMRs operating in North America and Europe     | 2035      | 50%        |

Full list of nine calls, sources and what would change our mind: SMR Trends 2026, free at [go-ibr.com](https://go-ibr.com). This guide is general information, not investment advice.

## ■ Keep going: the **GO-IBR SMR Series**

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FREE · 26 PAGES

### **SMR Trends 2026**

The full paper behind this guide, with sources and nine dated calls.

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### **Understanding Small Modular Reactors**

The primer: how reactors work, fuel, safety, waste and land use.

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### **The Order-Book Bottleneck**

Sizing the first-of-a-kind valley, and five ways across it.

PAID · 69 PAGES

### **SMRs: Market Guide**

Contracts ledger, cost model and company profiles.

## **Energy for Executives, by Fas Mosleh**

Where does your company actually stand on energy, and which way is it drifting? The *Power Position Matrix* plots energy intensity against energy control: Sleepwalkers, Sitting Ducks, Over-Insured and Power Players.

Condensed field guide: [lnkd.in/eGWWh5Gx](https://lnkd.in/eGWWh5Gx) · Complete guide: [lnkd.in/exfKp24k](https://lnkd.in/exfKp24k)

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