

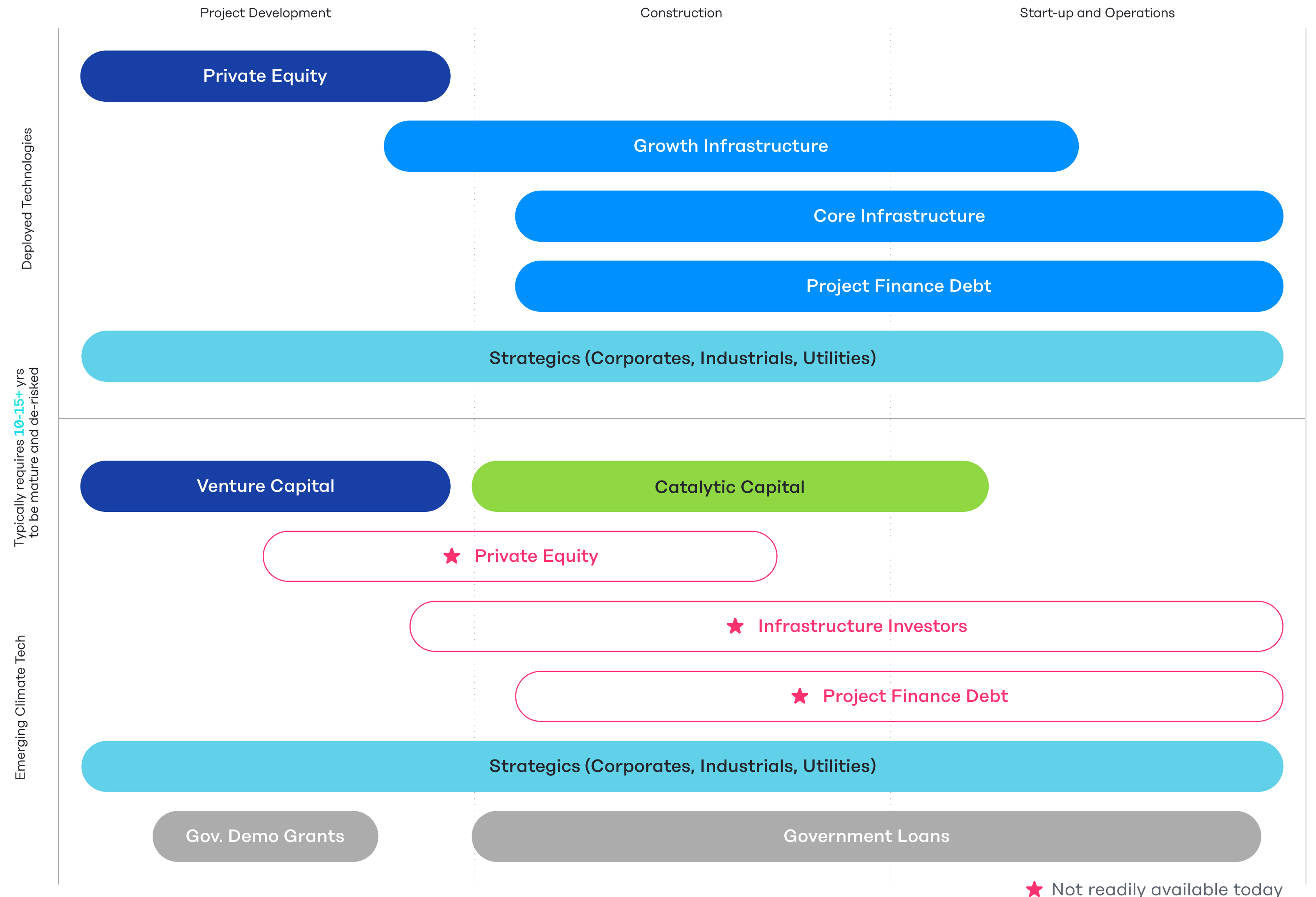
# 12 Keys to **Scaling-Up**

Unlocking Cheap(er) Capital

# There Is A Funding Gap For ECTs...

Emerging Climate Technologies (“ECTs”) are constrained in the sources of capital they can attract in contrast to developed technologies due to insufficient de-risking – creating a large funding gap for scaling-up these technologies

## Illustrative: Capital Availability by Project Stage

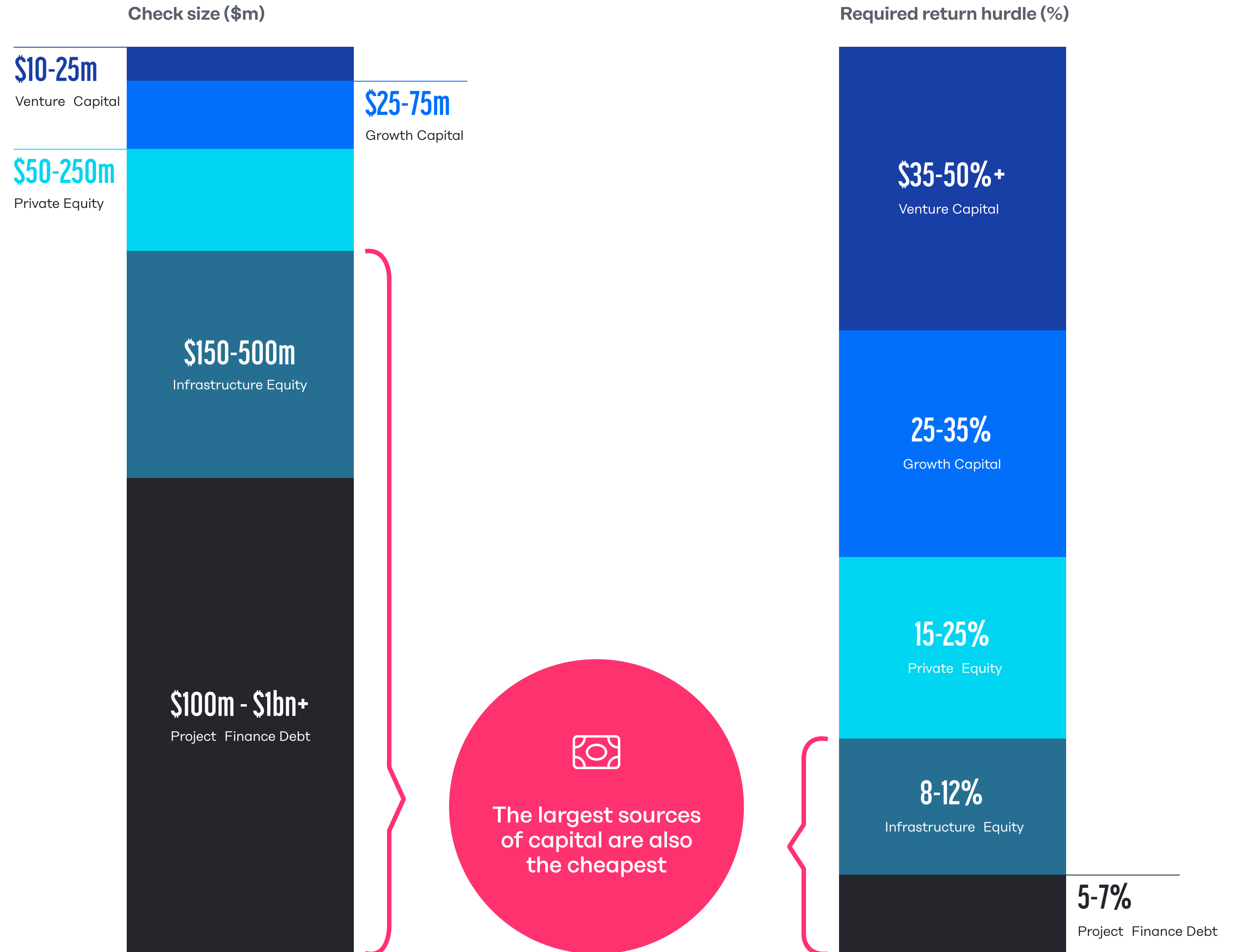


★ Not readily available today

# The Funding Sources That Can Fill The Gap Are Cheap(er)...

These more traditional funding sources, have large funds, can write big checks and offer cheaper costs of capital

## Capital Allocation By Investor Type



# But Also Have Very Rigid Criteria...

Infrastructure equity, and project finance lenders focus on de-risked technologies and projects that are well structured and can “check all the boxes”

## Infrastructure Investor Criteria for Capital Deployment



**Widely deployed and millions of operating hours** for the fully integrated system



EPC plan: **high price-certainty, fixed date, and adequate performance guarantees**



**Contracted, stable, cashflow** underpinning downside return



**End-to-end risk management** (e.g., feedstocks, utilities, offtake)



**Long-term performance track-record** with visibility on Opex



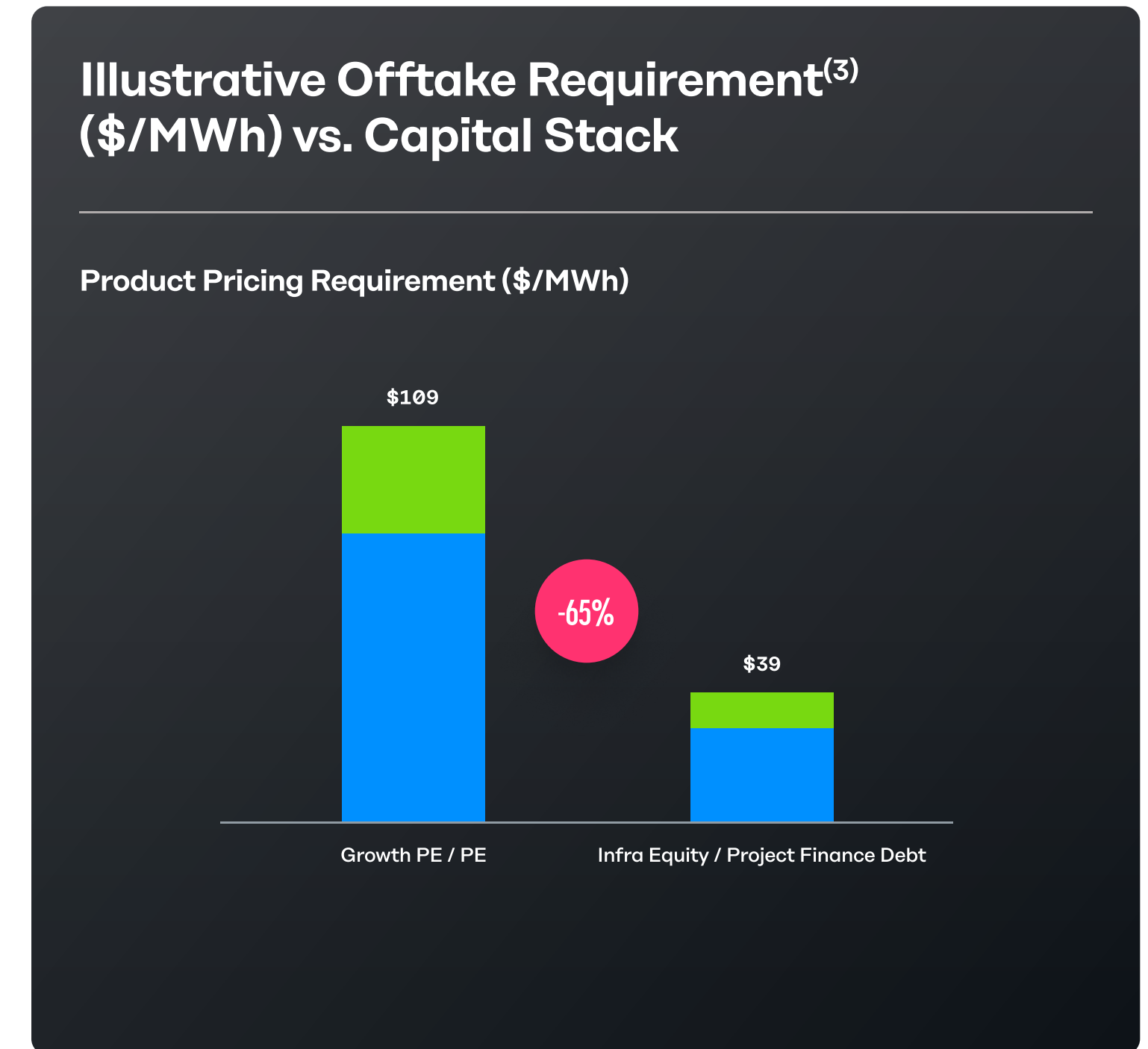
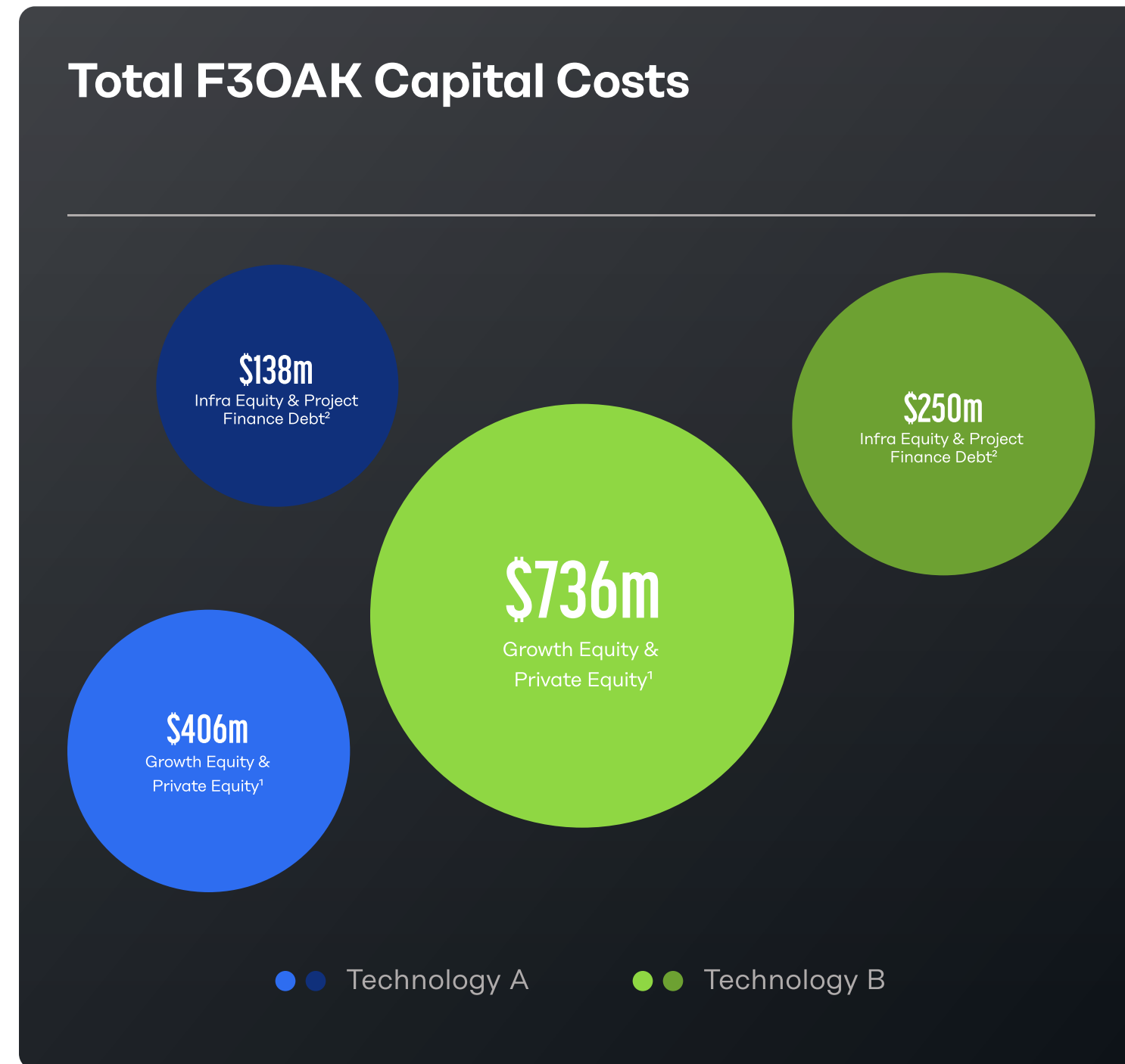
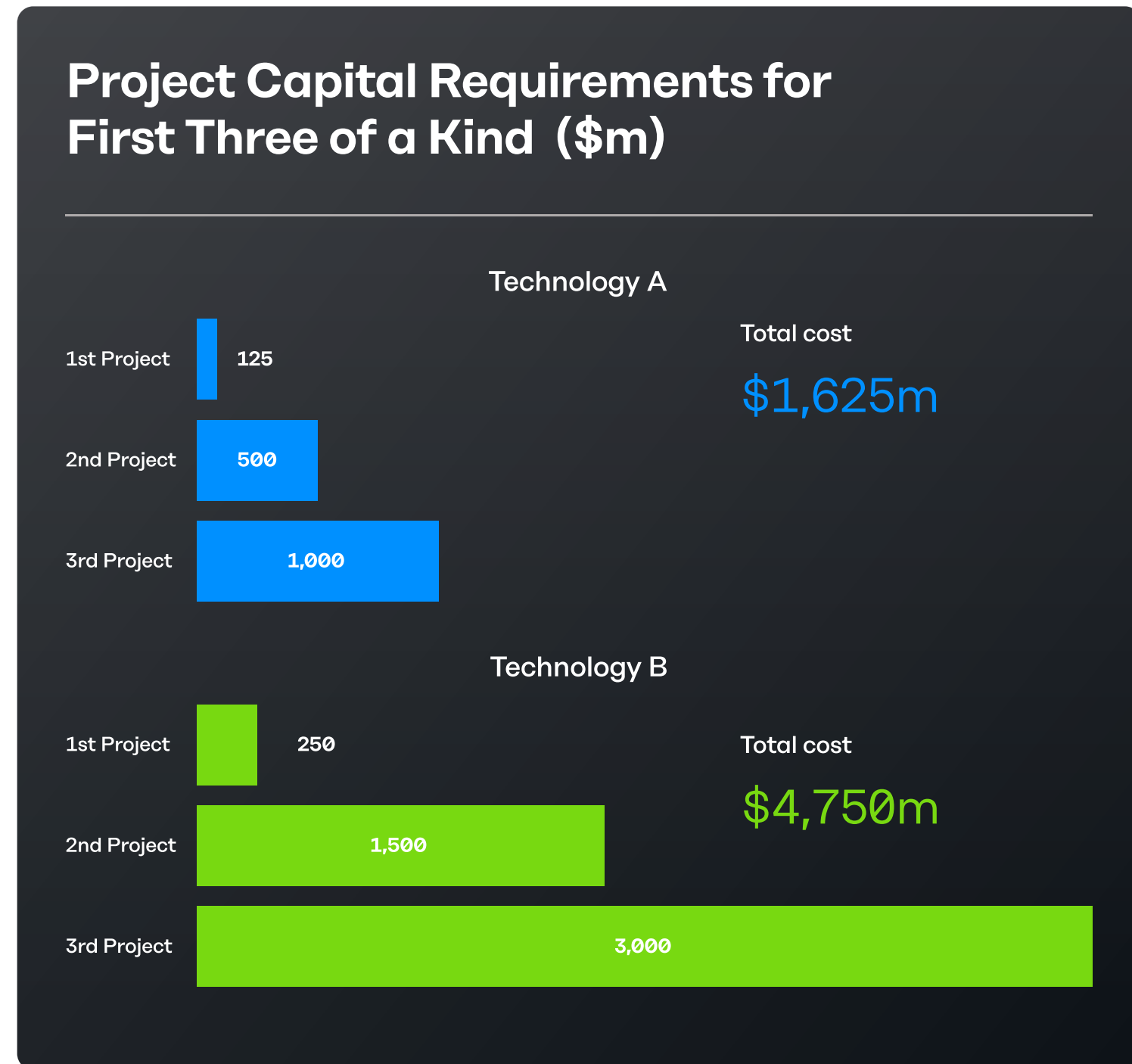
**Large capital deployment opportunity** (project & growth platform)



**Positive Project IRR** to compensate with the risk taken

# WHY IS IT EXISTENTIAL?

## Commit To A FOAK Project



Note(s): (1) 50:50 blend of the average return hurdle for Growth Equity and Private Equity (25%), (2) 70:30 blend of the average return hurdle for Infra Equity and Project Finance Debt (8.5%)

(3) Hypothetical Renewable Asset Assumptions – 100MW plant, 98% availability, 35% capacity factor, EBITDA margin of 75%, \$100m construction cost, 30-year plant life, assumes 30% ITC (direct pay), 100% equity funding.

# Unlocking Cheap(er) Capital

Unlocking these sources of funding takes a very intentional process by ECT start-ups in order to access these types of capital



# 12 KEYS TO SCALING-UP

**01**

**Commit to A FOAK Project**

A FOAK Project is existential – your technology will not be considered de-risked without it...Urgently map a path from Pilot → Demo → FOAK

**02**

**Prove Before Licensing**

Nobody else wants to build something that hasn't been built or proven at scale before

**03**

**Lock-Up Project Design**

Once the tech is stable (post-pilot), lock up the design, and leverage it to start engineering and build the Demo

**04**

**Design For Modularity**

Number-up instead of scale-up. It is less risky to build twenty \$50m de-risked modules than a \$1bn FOAK project

**05**

**Build A Demo**

Build an end-to-end (continuously operating) Demo ASAP! Learn from it

**06**

**Sharpen Cost Down Strategy**

Stress-test how you are estimating cost down path. Have 3rd parties verify and challenge assumptions

**07**

**Build-Out Project Execution Team**

Hire Project Developer/Construction teams before building out a large Business Development team

**08**

**Price Offtakes Flexibly**

Target investable long-term offtakes with flexible pricing. Construction costs always go up and it is very difficult to later ask customers for higher pricing

**09**

**Control Your Own Destiny**

Develop the project so you can control where and how you deliver it – the most motivated party to deliver project is YOU! Avoid project-on-project risk, and “marrying” too early

**10**

**Accelerate Project Development**

Start Pre-FEED, site scouting/selection AND development on FOAK ASAP! Focus on permitting, stakeholder engagement and regulatory compliance

**11**

**Finalize The Puzzle Pieces**

Focus on structuring and finalizing key contracts, ensuring the pieces fit together

**12**

**Raise The Capital**

Line up the FOAK Project capital sources and start next Series fundraising



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[BreakthroughEnergy.org/Catalyst](https://BreakthroughEnergy.org/Catalyst)