Private Sector Participation

Market-driven models in Australia versus policy-driven models in India; implications for regulation, investment, and project delivery

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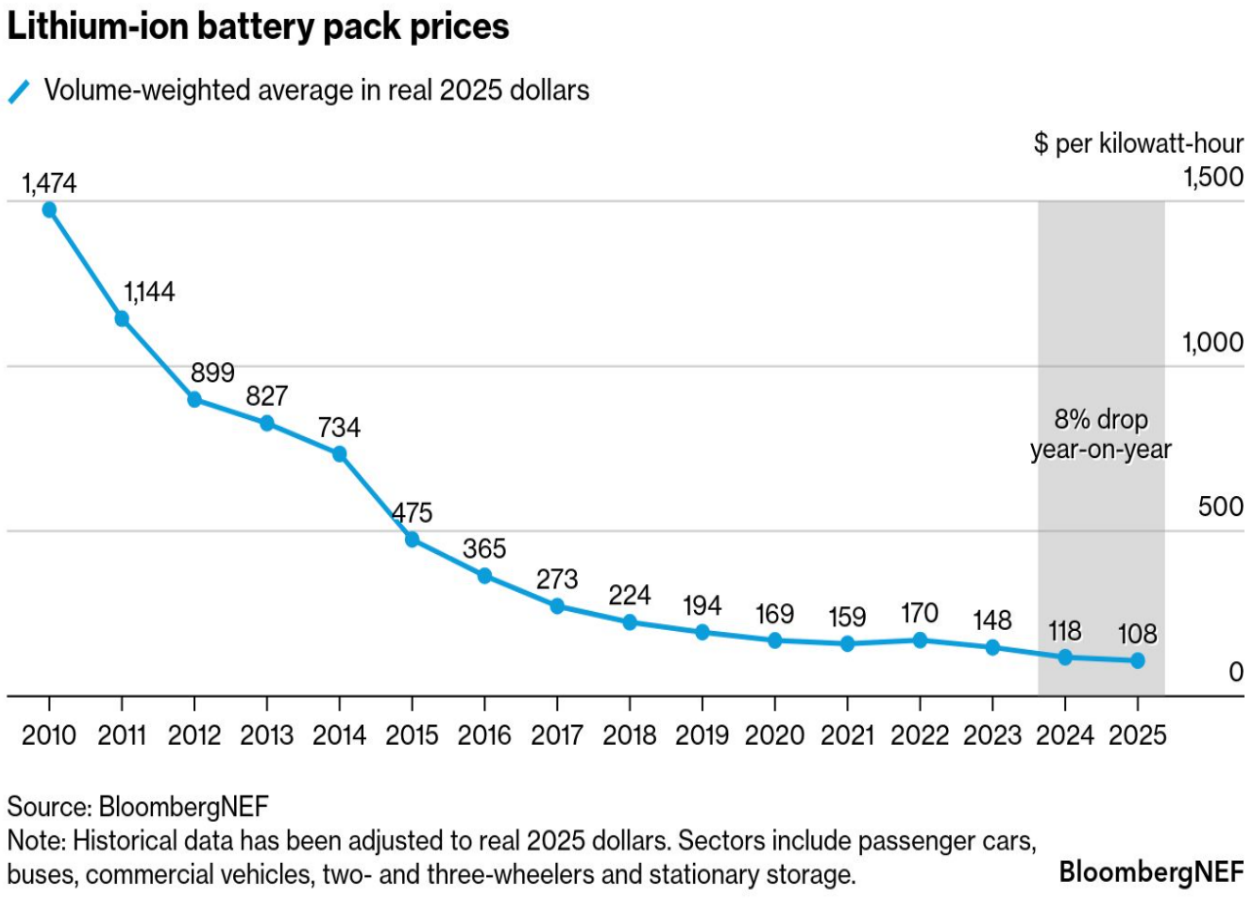
BESS Becoming Core Infrastructure



1. Costs have fallen dramatically

Lithium-ion battery pack prices have fallen ~93% since 2010, transforming the economics of storage.

2. Storage is increasingly essential

BESS is critical for VRE integration, flexibility, reserves, and grid stability in modern power systems.

3. Deployment at scale is within reach

Stationary storage costs are now approaching levels that enable large-scale deployment.

4. Financing remains the challenge

Translating system value into bankable and predictable revenue streams remains difficult.

Challenge is no longer whether BESS is needed – but how to create bankable business models

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Two Different Pathways to Bankable BESS

Market maturity strongly influences how BESS investment frameworks evolve

Australia 	**India** 
Market-driven model	***Policy-driven model***
Mature liberalized electricity market	Emerging or transitional market
Merchant & stacked revenues	Contracted revenues
High market exposure	Government-backed certainty
Private-led investment	Government-led deployment
Revenue maximization	Deployment acceleration

Different BESS business models are fundamentally different approaches to allocating commercial risk – neither is perfect

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Australia: Monetizing Volatility

Mature markets enable BESS to capture value across multiple services

Energy Arbitrage

FCAS Markets (10 x)

SRAS & NRAS Markets

Other Network Services

Real-Time Market Optimization

Mature liberalized electricity market
Transparent prices and liquid markets

Merchant & stacked revenue model
Multiple revenue streams from competitive markets

High exposure to market price volatility
Higher risk, higher reward

Private sector finances and operates projects
Commercial returns drive investment decisions

BESS participates across multiple market services
Maximizes utilization and value capture

Revenue Stacking is Important for BESS Bankability in Merchant Markets

***Trend**: Financial Derivatives (Cap & Floor contracts)*

FCAS = Frequency Control Ancillary Services, NCAS = Network Control Ancillary services , SRAS = System Restart Ancillary Services

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India: Creating Certainty

Policy-driven frameworks de-risk investment & accelerate BESS

Government Sets Policy (Targets) → Tenders & Auctions → Long-Term Contracts (10-15 Years) → De-risking Support (Payment Security) → Private Investment & Deployment

RENEWABLE INTEGRATION

Firm, dispatchable clean energy

Peak Shaving | *Grid Stability* | *Reliability Services*

BANKABLE REVENUE STREAM

Fixed / contracted capacity payments over long term

Predictable cash flow enables financing

Policy-driven model
Government sets targets and creates the framework for deployment

Contracted revenue certainty
Long-term offtake agreements reduce market and revenue risk

Government-backed support
VGF and payment security mechanisms enhance bankability

Accelerated deployment at scale
Large tender sizes drive rapid capacity addition

Lower market exposure
Projects have lower operational risk but capped upside

Contract Certainty is Driver of Bankability in Emerging Markets

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Trade off: Risk vs. Certainty

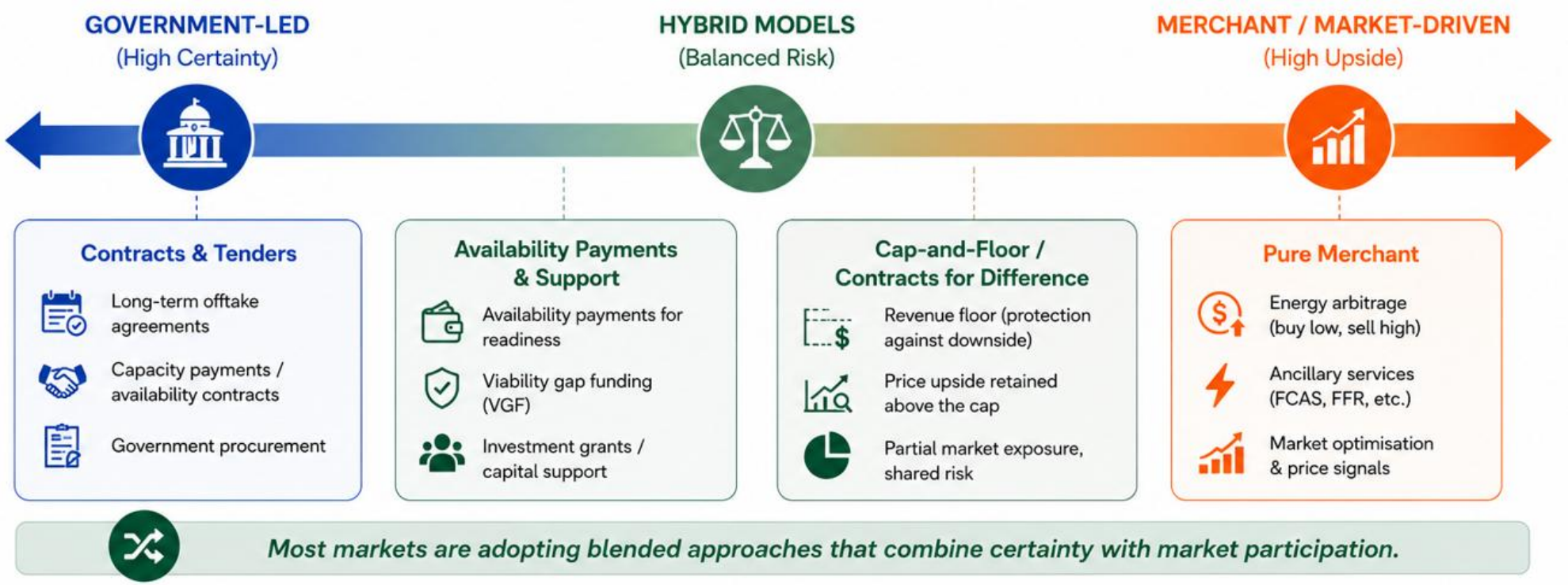
Different models ➔ different risk allocations ➔ different outcomes

	AUSTRALIA Market-driven model		INDIA Policy-driven model
Upside Potential	Higher upside Greater potential returns	➔	Lower but more stable upside Predictable and steady returns
Market Risk	High exposure to volatility Prices fluctuate frequently	➔	Lower market exposure Reduced volatility and risk
Revenue Profile	Variable / merchant Revenues vary with markets	➔	Fixed / contracted Revenues are contracted
Revenue Structure	Revenue stacking Multiple revenue streams across services	➔	Long-term agreements Single or bundled contracts
Investment Driver	Optimization & market signals Maximize returns and asset utilisation	➔	Deployment certainty Accelerate capacity addition
Risk Allocation	Private sector carries risk Investors absorb market and price risk	➔	Government de-risks projects Risk mitigated through policy and payment security

Key Difference: Who Carries the Commercial Risk

Trend: Movement Towards Hybrid Models

Range of Risk Allocation and Revenue Support is Emerging



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What Model Fits what Market?

1 EARLY-STAGE MARKETS

High uncertainty
Limited market depth

LIKELY MODEL
Government contracts & policy support

- Tenders & long-term contracts
- VGF / payment security
- Deployment de-risking

2 TRANSITIONAL MARKETS

Developing markets
Improving frameworks

LIKELY MODEL
Hybrid support models

- Partial revenue support (e.g., availability payments)
- Cap-and-floor / CfD mechanisms
- Merchant participation grows

3 MATURE LIBERALIZED MARKETS

Deep markets
Strong institutions

LIKELY MODEL
Merchant / stacked revenues

- Competitive markets & price discovery
- Revenue stacking across services
- Private sector innovation & optimization

As markets mature, risk shifts from the government to the market, and from certainty to opportunity.

Conclusion

1. BESS is increasingly becoming core infrastructure for modern power systems

- Falling battery costs & rising VRE penetration are accelerating deployment globally
- Challenge is no longer technical feasibility but large-scale implementation & integration

2. Challenge is creating investable and bankable business models

- Different power systems require different approaches to risk allocation, revenue certainty, & market participation
- Challenge is how different power systems translate system value into investable and bankable revenue streams

Thank You

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