



Financing energy storage

Opportunities, barriers, and ways forward.....

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eTECHnext

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Energy Access



Renewables



Power Sector



Industrial Sustainability &
Competitiveness



Low-Carbon Pathways



Risks & Adaptation

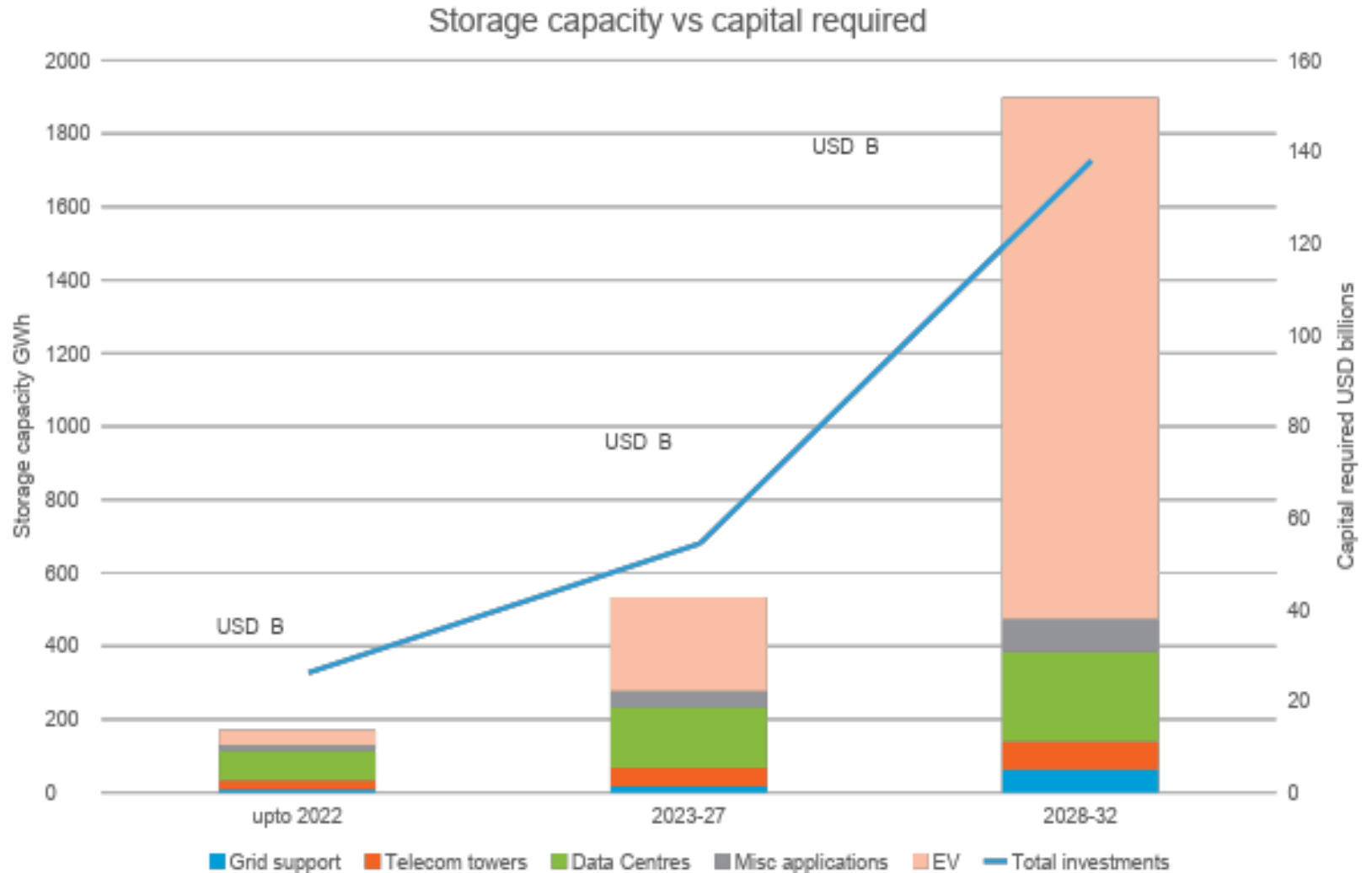


Technology, Finance & Trade



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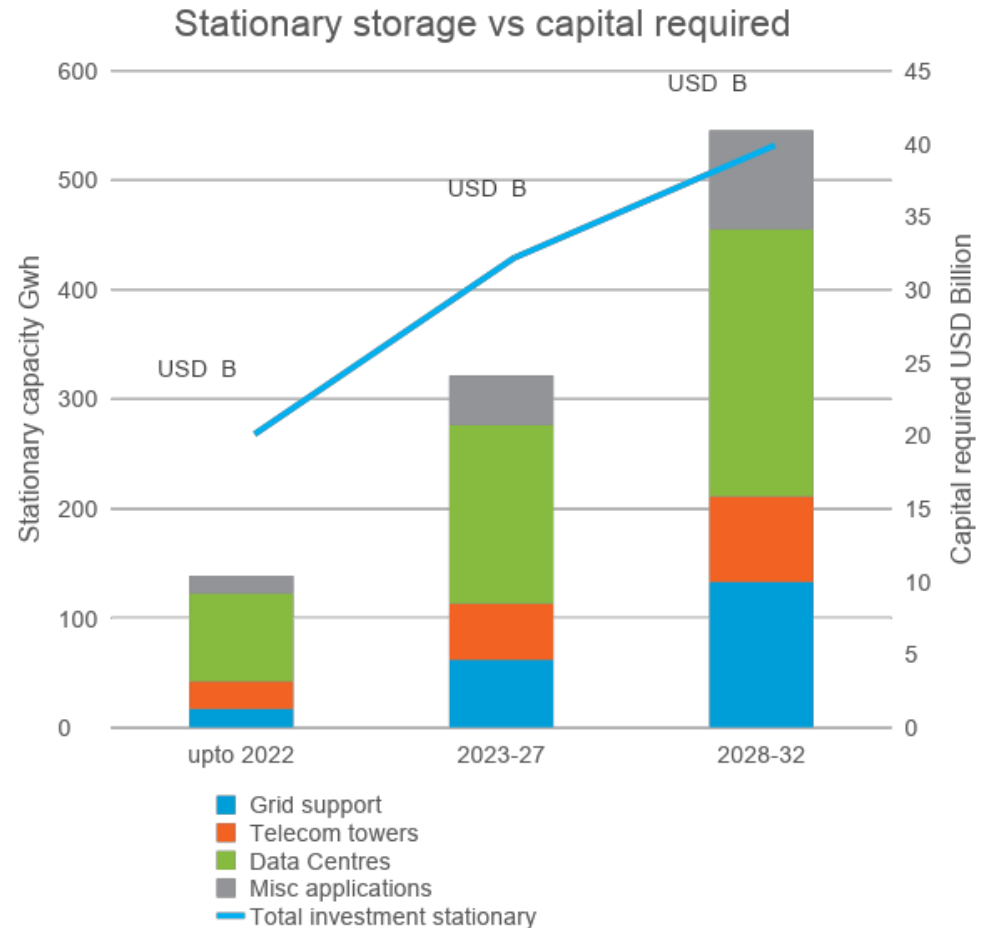
Size of opportunity



* Source : ISGF Energy storage system and BNEF

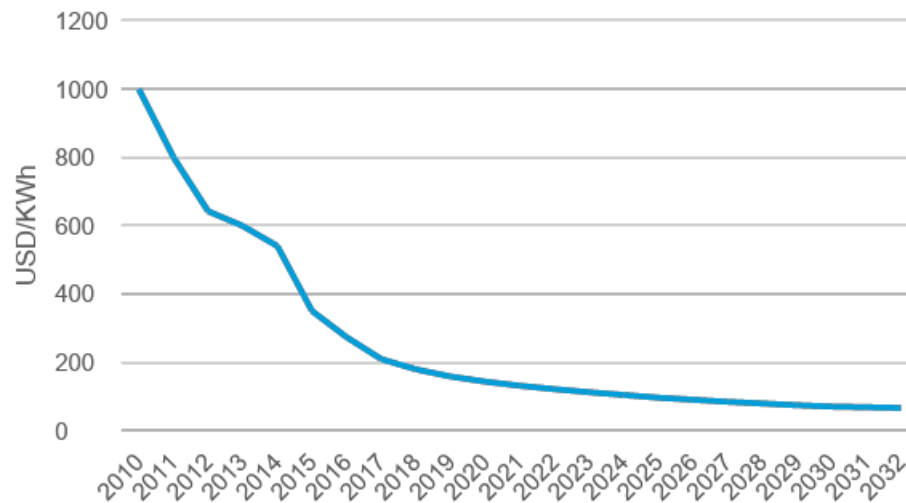
Cont...

- Stationary support potential of 139GWh, 322 GWh and 522 Gwh respectively over 2022, 2027 and 2032.
- The stationary usage will be in the form of
 - Grid support – ancillary services
 - Telecom towers
 - Data Centers
 - Misc (e.g railways, rural electrification etc.)



Barriers

- Where is the money ?
 - Limited bandwidth of banking systems in India
 - Constrained balance sheets of banks, high gross NPAs, limited
 - Limited sources of capital Lack of concessional lines of credit
- Bond market – is dominated by high rated entities (AA and above) and Govt / PSUs
- Technology risk
 - which technology ? LFP, LMC and several subversions etc
 - Rapidly falling technology costs



- Power electronics?
- No standardization

Cont...

- Lack of manufacturing infrastructure
- Lack of charging infrastructure
- No secondary market
 - Credit risk for the lender
- Auto industry ?
 - Is the industry ready to invest in parallel lines for the EVs + ICE

Way forward

- PSUs need to be the initial flag bearers
 - Build, Operate and sell (Invits)
- Financial intermediation
 - De-risking conventional lending – e.g. guarantee schemes
 - Concessional lines of credit
- Policy support
 - R&D support
- Budgetary allocation for schemes e.g. FAME II
 - Tax holidays
 - Subsidies
- New business models
 - E.g leasing, second life of battery.

Thank you

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