

Legend	
Black text	ComCom scenarios
Red text	Contact markups

Principles:
Storage is a contestable service and hence should not be in RAB
Regulatory framework should provide a competitive, level playing field for storage development at network level and behind meter
Storage can access multiple value streams including network (eg avoid augmentation) and non-network (eg energy arbitrage, ancillary markets) benefits
Market-led installation of storage most likely to lead to efficient outcomes and best value for consumers

Market Efficiency	✘ EDB battery in RAB creates unequal playing field with unregulated competitors due to inadequate IM cost allocation provisions which enable cross-subsidies, as well as demand side incentive scheme which applies to EDBs	✔ Battery owner incentivised to maximise value from multiple streams (energy arbitrage, network benefits etc)	✔ Battery owners free to contract and maximise value eg with EDBs for peak demand and quality services	✔ Consumer free to enter into access contract with eg EDB, aggregator, utility
Information Asymmetry	✘ Current IM capex approval process and information disclosure provisions not designed to provide 3rd party with up to date, fulsome information on where non-network solutions / demand response is required in detail, hindering ability to compete	✔ Requires EDB to make all info disclosed to storage affiliate available to competing 3rd party providers	N/A Not required as EDB ownership of batteries completely prohibited.	N/A Consumer decision to invest
Ringfencing	✘ No ringfencing in place preventing EDBs from competing in unregulated markets. Regulation should ensure a vertical disaggregation of the electricity supply chain between regulated monopoly and competitive activities.	✔ Requires related party provisions in IMs to be materially strengthened (eg Elec. Act Schedule 3 - arms length rules)	N/A Not required as EDBs completely prohibited. Scenario required if effective ringfencing not practicable	N/A Consumer decision to invest
Competition	✘ Will not result in competitive market - unlikely 3rd parties will enter market due to inability to compete with EDBs	✘ EDBs batteries RAB funded, yet benefit individual consumers. 3rd parties no RAB funding or direct access to network benefits, likely to create monooolv market	✔ Scenario promotes competitive market (but relies on effective information asymmetry and ringfencing provisions)	? Trade-off between additional competition from affiliates of EDBs, and ability to create level playing field
				✔ Consumer can buy battery from any storage market participant

TITLE	EDB battery ownership in RAB		EDB battery ownership ringfenced	EDB battery ownership prohibited
Contact Scenario ComCom Scenario	Scenario 1		Scenario 2	Scenario 3
	Scenario 1	Scenario 3		
Scenarios relate to investment in batteries	Distribution network battery	EDB owned and controlled battery behind meter	Ringfenced affiliates of EDBs compete in battery market (network & behind meter)	Prohibition on EDB ownership of batteries (infront & behind meter) - lack of adequate ringfencing to ensure level playing field
Batteries allowed in RAB?	Yes	Yes	No	No
Explanation	EDB buys and installs battery in its network as an alternative to traditional network upgrades. Battery is not metered	EDB buys and installs battery behind the meter as an alternative to traditional network upgrades	EDBs assess network and non-network options as part of planning process, and can procure services from third party battery service providers and ringfenced affiliates of EDBs	EDBs assess network and non-network options as part of planning process, and can procure services from third party battery service providers
Cost Allocation	Cost Allocation IM used to allocate full or portion of asset to RAB. If 100% allocated to RAB unregulated revenue retained by EDB and is additional to normal regulatory return.		Not applicable. EDB contracts with storage provider will be for network benefits only (ie no energy arbitrage, interruptible load etc) and included in regulated opex.	
Location (infront/behind meter)	EDB network (in front of meter)	Consumer premises (behind meter)	Both in front and behind meter	Both in front and behind meter
Competing battery providers	Assume third parties can also supply and own batteries at grid scale and behind the meter, and contract to EDBs for storage services - through direct contracts, demand response programs etc		Battery market open to EDB affiliates and 3rd party technology providers	Battery market open to 3rd party technology providers
Ownership	EDB or 3rd party owner. If 3rd party owner any EDB service contract included in regulated opex		Network: 3rd party service provider or affiliate of EDB Behind meter: 3rd party service provider, affiliate of EDB or consumer	Network: 3rd party service provider Behind meter: 3rd party service provider or consumer
Control	EDB or 3rd party owner.		Owner of battery	Owner of battery
Use (nb this also includes secondary uses and/or unintended effects caused by how the battery is used)		Reduce bill by optimising time of use (primary for EDB and consumer)	Owner free to maximise value of battery from multiple income streams	
	Avoid/defer Capex (primary)	Avoid/defer Capex (secondary for EDB)		
	Improve reliability	Improve reliability (secondary for EDB)		
	Reduce transmission charges	Reduce transmission charges (secondary for EDB)		
	Potential unregulated service*	Potential unregulated service*		
Revenue streams (excluding line charges)	Received by EDB	Received by EDB	Received by owner - direct (eg energy arbitrage, ancillary markets), and indirect (eg contract load control to aggregator or direct to either EDB or utility)	
	Revenue from quality incentive scheme	Revenue from quality incentive scheme		
	Revenue from unregulated services*	Revenue from unregulated services*		
		Lease payments from consumer		
Capital costs	Incurred by EDB	Incurred by EDB	Incurred by owner	Incurred by owner
	Battery (purchase and commissioning)	Battery (purchase and commissioning)	Battery (purchase and commissioning)	Battery (purchase and commissioning)
Operating costs		Incurred by consumer	Incurred by owner	Incurred by owner
		Retail energy purchases		

Notes: *There could be several unregulated services which generate revenue streams, like selling ancillary services to the system operator. (1) Battery system means a battery and associated control equipment; (2) Battery system is generic and could be a Powerwall, electric vehicle or other system. The battery system is fixed and not a short term support arrangement; (3) All required and expected industry standard arrangements are in place, ie, the consumer has a retailer who has a network services agreement with the distributor etc. There will be appropriate arrangements to cover the injection of electricity into the network from the battery system.

Consumer Owned Battery
Scenario 2
Consumer owned and controlled battery behind meter
N/A
Consumer buys battery from EDB and installs it behind the meter in order to reduce its bill by optimising the time of sourcing electricity from the grid
Consumer premises (behind meter)
Consumer
Consumer Reduce bill by optimising time of use (primary for consumer)
Avoid/defer Capex (unintended)
Improve reliability (primary for consumer; unintended for EDB) Reduce transmission charges (unintended benefit for EDB)
Received by EDB
Revenue from sale of battery
Incurred by consumer
Battery (purchase and commissioning)
Incurred by consumer Retail energy purchases