

RA & Deliverability Approach for Grid Storage

The California Energy Storage Alliance (CESA)

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CESA Supports Multiple Actions for RA Eligible Storage

Energy Storage Approach	Actions at the CPUC	Actions at the CAISO
<p>1 ES providing system/local and flexible capacity</p>	<ul style="list-style-type: none"> • Unbundle EFC from NQC (SDG&E Proposal) 	<ul style="list-style-type: none"> • Use existing system/local deliverability study • Continue developing flexible deliverability study process
<p>2 ES providing flexible capacity only</p>	<ul style="list-style-type: none"> • Unbundle EFC from NQC (SDG&E Proposal) • Allow EFC-Only resources 	<ul style="list-style-type: none"> • Continue developing flexible deliverability study process
<p>3 ES that does not add to the pMax of existing generation (But seeks updated ELCC and EFC values)</p>	<ul style="list-style-type: none"> • Develop ELCC methodology that accounts for on-site storage with generation • Develop EFC methodology that accounts for updated flexibility of hybrid resource 	<ul style="list-style-type: none"> • Pre-COD: Expand material modification options to account for flexibility addition • Post-COD: Reevaluate hybrid resource for standard and/or flex only (e.g. no new reliability study)

Non-RA Eligible Storage Resources - Clarification

Energy Storage Approach	CPUC	CAISO
4 ES as a non-wires alternative for transmission upgrades	Not RA Eligible	Included in TPP
5 ES as a non-wires alternative for distribution upgrades	Not RA Eligible	CESA supports market participation for rate based assets
6 ES installed for market participation only	Not RA Eligible	No change – this is an “Energy Only” resource

CESA Draft Proposed Approach to Deliverability

	Metric	Storage Operation	Time Period
System/Local Deliverability Study (existing)	$pMax_{RA}$	Discharging	Summer Evening Peak
Flexible Deliverability Study (proposed)	$pMin_{RA}$	Charging	Spring Midday Off Peak (low net load)
	$pMax$	Discharging	Spring Evening Peak

Advantages of proposed flexible deliverability approach:

- » Leads to a cost effective, realistic transmission upgrade strategy
- » Accounts for charging load as an aspect of flexibility
- » Straightforward study modeling

Distributed Energy Storage RA Qualification Concerns

Concern	Action	Agency
<p>Additional RA Guidance is needed for behind the meter resources which are:</p> <ul style="list-style-type: none">» Fully grid interactive» Highly available» Independent from load» Independently metered	<p>Continue developing Supply Resource DR</p>	<p>CPUC</p>
<p>Deliverability Studies are not set up for distributed resources:</p> <ul style="list-style-type: none">» \$50,000 study per individual site is too high for distributed generation» Addresses may not always be available at time of study; regional studies should be allowed.	<p>Account for distributed resources in deliverability study and process development</p>	<p>CAISO</p>