

Press Release



NARDAC Secures Underwriting Authority For Battery Storage Projects

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New syndicated offering provides battery developers and operators with USD 50 million in underwriting capacity per location, offering the BESS industry much needed extra capacity

London, 26 March 2024 – NARDAC, the specialist energy and infrastructure broker and Managing General Agency (MGA), has today started underwriting battery energy storage (BESS) projects. The new capacity is provided by eight A-rated Lloyds syndicates and will enable NARDAC to provide USD 50 million in underwriting capacity to battery developers and operators for projects worldwide through their insurance brokers.

As battery projects continue to proliferate globally, notably across the United States, Western Europe and Australia, the pace of project development, coupled with the risk profiles associated with emerging technologies, has reduced the insurance capacity available for operators to secure against their projects.

Equally, older, and typically smaller, battery projects in the U.S. and the U.K. are deprioritised, leaving operators with punitive terms and conditions. NARDAC is set-up to service these smaller accounts with a nuanced approach to underwriting BESS projects, providing a consistent approach that brokers and operators can rely on.

By bringing increased insurance capacity to the BESS markets, and directly linking this facility with NARDAC's specialist broking knowledge and track record, NARDAC will provide the BESS sector with comprehensive insurance services rooted in the understanding of evolving cell chemistries and types, the more granular battery management systems (BMS) now available, and the increasing energy density of cabinets.

Serving transmission-connected as well as the smaller distribution-connected BESS projects, NARDAC's new MGA capacity will be deployed at a critical time as the battery technology market begins to fragment into tiered suppliers, prices in Lithium-Ion continue to fall – enabling it to cement its dominant market share, crowding out new competing technologies – and cell capacities grow from 120Amps to 300Amps, driving increased energy density.

With a critical understanding of these emerging market dynamics, NARDAC recognises the need for flexible deductibles, enabling project developers who are investing in the latest operational technologies, such as digital twins and prognostics, to sculpt their cover to match risk tolerances.

"The project development pipeline for battery energy storage systems is growing at an exponential rate," said Dr. Tom Harries, Partner, NARDAC. "But while there is impetus to quickly deploy batteries to manage the shift to low-carbon and electrified power grids, there are some significant hurdles in opening up greater insurance capacity to support this transition."

"With deep industry expertise in engineering, broking, underwriting, and claims, we know that BESS businesses face a multitude of challenges as technologies evolve and as revenue streams now focus on ancillary services and merchant trading, moving away from fixed, long-term payments. We noticed projects increasingly being fully funded by lenders in the anticipation of reliability and comprehensive risk management and recognised that there was an emerging gap in critical risk cover that was not being met by the incumbent markets."

"The battery energy supply chain is maturing. We look forward to supporting our clients and future partners navigate the challenges to successful project deployment."



NARDAC

BESS Insurance

Direct your insurance broker to approach Nardac for a quote. Why?

- A BESS insurance leader, expanding the competition to provide your insurance.
- Global coverage
- Lender-compliant terms
- Open to all BESS integrators, cell suppliers and chemistries
- Works alongside the complex revenue stack of asset managers
- In-house engineering

For a premium indication, all we need is:



Site layout diagram



Capex breakdown
By major component. For example: BESS, PCS, BoP, Grid, other.



12-month estimated revenue



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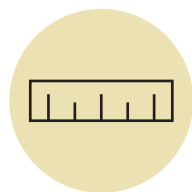
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Green Flags

Factors for cheaper insurance at better terms (while also complying with lender requirements):



Spacing

≥ 8 feet spacing expected between rows of BESS units. This is used to calculate the biggest potential thermal runaway cascade.

Information:
Site layout with spacing labelled



Warranties

What is and isn't included in your BESS, PCS and transformer warranties. The greater the warranty coverage, the lower the risk to insure at lower cost.

Information:
Copy or description of warranties.



Supplier

A reputable integrator
Is it a reputable cell supplier?

Information:
Technical due diligence report
Technical specification and/or supply agreement



Grid Connection

We can insure projects connected to either a transmission or distribution grid and up to 1,000m of the cable from site to first non-owned substation. We do need to know:

- If the project has any main power transformers
- If so, how many and who is the manufacturer.
- Location of first non-owned substation, (i.e. where the project connects to the grid).

Information:
Layout, spec sheets and coordinates.



BMS

Cell-or-module level monitoring
3rd party monitoring is a bonus

Information:
Confirmation of monitored metric and granularity



Revenue Stack

A monthly breakdown of the expected revenue for the policy period. This is for insured revenue in the event of downtime from a claim.

- Monthly to capture monthly revenue volatility.
- Breakdown of expected monthly revenue stack.

Information:
Simple Excel summary of stack by month.



UL9540a

To check:
• Thermal runaway temperatures sit in typical range for cathode chemistry
• Minimal spread of thermal runaway between modules

Information:
Cell, module and unit-level reports

This list is founded on our experience of structuring insurance for over \$7 billion of BESS assets around the world. It covers the range of utility-scale project sizes, technology (integrator and cell supplier), cathode chemistry, BMS and control system architecture, warranties and changing revenue stacks.

Units: We define units as the integrated product, be it a container or cabinet.

Underwriting

Below is a list of the required information for a formal quotation. A lot of this can be answered by several key documents, such as the technical due-diligence report. Supplying the below removes conservative assumptions and improves the likelihood of a cheaper quote at better terms:

For operational insurance:

Site	<input type="checkbox"/> Geotechnical report	BESS projects often on brownfield/"questionable" land so insurers want to check land stability etc.
	<input type="checkbox"/> Hydrological report	Check for appropriate flood-mitigation measures
Engineering	<input type="checkbox"/> Layout diagram/ Site plan & Lat/Long	Check distances between BESS units and from substation to calculate probable maximum loss
	<input type="checkbox"/> Diagram showing foundation levels	Check foundations levels against flood return periods.
	<input type="checkbox"/> Location of site substation	For proximity to BESS units and possible thermal runaway cascade
	<input type="checkbox"/> O&M agreement	O&M responsibilities covering BESS, BOP and electrical infrastructure.
Technology	<input type="checkbox"/> Single line diagram	e.g. the Electrical diagram
	<input type="checkbox"/> UL9540a cell, module and unit-level report	
	<input type="checkbox"/> Independent engineering report	Any tech due diligence?
	<input type="checkbox"/> Details on warranties	What are the warranty provisions and how are these financed?
Grid Connection	<input type="checkbox"/> BMS system details and track record	
	<input type="checkbox"/> Location of first non-owned substation	For contingent DSU/BI coverage
	<input type="checkbox"/> Distance to first non-owned substation	For contingent business interruption
	<input type="checkbox"/> Connected to distribution/transmission grid?	
	<input type="checkbox"/> Main power transformer supplier (MPT)	
Finance	<input type="checkbox"/> No of MPTs and, if applicable, any redundancy	Check to see if there are multiple transformers; in the event of damage to one can the other operate independently? If so, how much of the project could still export?
	<input type="checkbox"/> Monthly revenue breakdown	If Delay in Start-up required.
	<input type="checkbox"/> Details on revenue sources	How will the project make money: capacity payments/ancillary services/arbitrage etc.?
Safety	<input type="checkbox"/> Breakdown of values (capex)	Insurers needs to see the relative cost of different bits of equipment.
	<input type="checkbox"/> Proof of engagement with local fire brigade	Some communication (letter/email) that the local fire brigade is aware of the BESS project
	<input type="checkbox"/> Details of any thermal runaway strategies	Mitigation strategies such as any water/gas suppression (if applicable, liquid cooling etc.
	<input type="checkbox"/> Details of site security	