

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 distributionconnected 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 guickly 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

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.

BESS Insurance



12-month estimated revenue



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Green Flags

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



Spacing

 \geq 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



A reputable integrator Is it a reputable cell supplier?

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

Confirmation of monitored metric and

Information:

aranularity

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

Supplier



BMS



To check:

typical range for cathode chemistry • Minimal spread of thermal runaway

UL9540a

• Thermal runaway temperatures sit in between modules

Information: Cell, module and unit-level reports







Connection

Information: Copy or description of warranties.

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-

What is and isn't included in your BESS,

greater the warranty coverage, the lower

PCS and transformer warranties. The

the risk to insure at lower cost.



Grid

Revenue

Stack

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.

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.

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	Geotechnical report	BESS pro stability e
	□ Hydrological report	Check fo
Engineering	□ Layout diagram/ Site plan & Lat/Long	Check di loss
	Diagram showing foundation levels	Check fo
	□ Location of site substation	For proxi
	□ O&M agreement	O&M re:
	□ Single line diagram	e.g. the E
Technology	UL9540a cell, module and unit-level report	
	Independent engineering report	Any tech
	Details on warranties	What are
	BMS system details and track record	
Grid Connection	□ Location of first non-owned substation	For conti
	Distance to first non-owned substation	For conti
	Connected to distribution/transmission grid?	
	□ Main power transformer supplier (MPT)	
	\Box No of MPTs and, if applicable, any redundancy	Check to other ope
Finance	☐ Monthly revenue breakdown	lf Delay i
	Details on revenue sources	How will
	□ Breakdown of values (capex)	Insurers r
Safety	□ Proof of engagement with local fire brigade	Some co project
	Details of any thermal runaway strategies	Mitigatio
	□ Details of site security	

pjects often on brownfield/"questionable" land so insurers want to check land

r appropriate flood-mitigation measures

stances between BESS units and from substation to calculate probable maximum

undations levels against flood return periods.

mity to BESS units and possible thermal runaway cascade

sponsibilities covering BESS, BOP and electrical infrastructure.

Electrical diagram

due diligence?

e the warranty provisions and how are these financed?

ngent DSU/BI coverage

ngent business interruption

see if there are multiple transformers; in the event of damage to one can the erate independently? If so, how much of the project could still export?

in Start-up required.

the project make money: capacity payments/ancillary services/arbitrage etc.?

needs to see the relative cost of different bits of equipment.

mmunication (letter/email) that the local fire brigade is aware of the BESS

on strategies such as any water/gas suppression (if applicable, liquid cooling etc.