DOOSAN GridTech

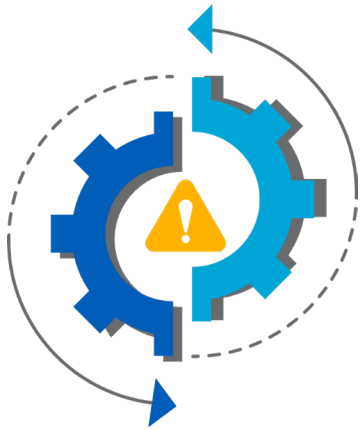
Energy Delivered

End-to-End Flexible & Scalable Battery Energy Storage Systems

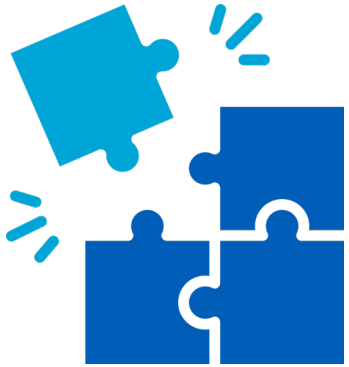
DOOSAN GRIDTECH

The #1 Reason Storage Projects Fail to Deploy? Poor System Integration. We Solve That.

Here's why system integration matters:



Integration missteps result in delays, failures and lost ROI.



Poor interoperability risks system failure.

Compliance gaps risk costly delays, penalties or rework.

DOOSAN GRIDTECH

Our Solution:
Integrated BESS Solutions that Deliver Results

BESS Design + Integration

- Turnkey Design + Integration
- In-House PPC
- Pre-Commissioning via Hardware-in-the-Loop (HIL) Simulation
- Utility-Grade Safety + Controls
- Faster Time-to-Energization

BESS Control Software

- Unifies Multi-Vendor Components
- Sub-Second Response and Control
- Hybrid-Ready
- Open Standard Communication Protocols
- Dynamic Use Case Shifting

BESS Maintenance Support

- System Monitoring & Analytics
- Performance Optimization
- Safety & Compliance
- OEM Coordination & Single-Point Accountability
- Predictable OPEX & Bankability

Powering Projects Across the Globe

DOOSAN GRIDTECH

Wave 1 200MWh BESS Portfolio

Tampa, Florida, USA

Doosan Role: System Integration + Software

Flexible Applications: Peak shifting, voltage and reactive power support, ramp rate control, fast frequency response, generation reserve

Wandoan South 150MWh BESS

Wandoan, Queensland, AUS

Doosan Role: EPC + Software

Flexible Applications: Energy arbitrage and frequency control ancillary services

Tailem Bend II 45MWh BESS

Tailem Bend, South Australia, AUS

Doosan Role: EPC + Software

Flexible Applications: Fast frequency response, ancillary services, hybrid renewable integration

Capital Battery 200MWh BESS

Canberra, Australian Capital Territory, AUS

Doosan Role: EPC + Software

Flexible Applications: Ancillary services, arbitrage, peak shaving, block/load shifting, renewable firming and smoothing, virtual inertia

MESA 1 & 2 9MWh BESS

Everett, Washington, USA

Doosan Role: Software Integration

Flexible Applications: Peak shaving, peak shifting, renewables smoothing, energy arbitrage/system flexibility

Beacon Solar Plant 10MWh BESS

Mojave Desert, California, USA

Doosan Role: EPC + Software

Flexible Applications: Frequency regulation, energy storage for offsetting solar generation, and voltage support

Atterbury & Nabb 10MWh BESS

Camp Atterbury & Nabb, Indiana, USA

Doosan Role: EPC

Flexible Applications: Islanding, backup power, frequency regulation

Kingsbury 3MWh BESS

Austin, Texas, USA

Doosan Role: Software Integration

Flexible Applications: Renewable integration, bulk power services, aggregated and direct utility control

DOOSAN GRIDTECH

Control You Can Trust. Results You Can See.

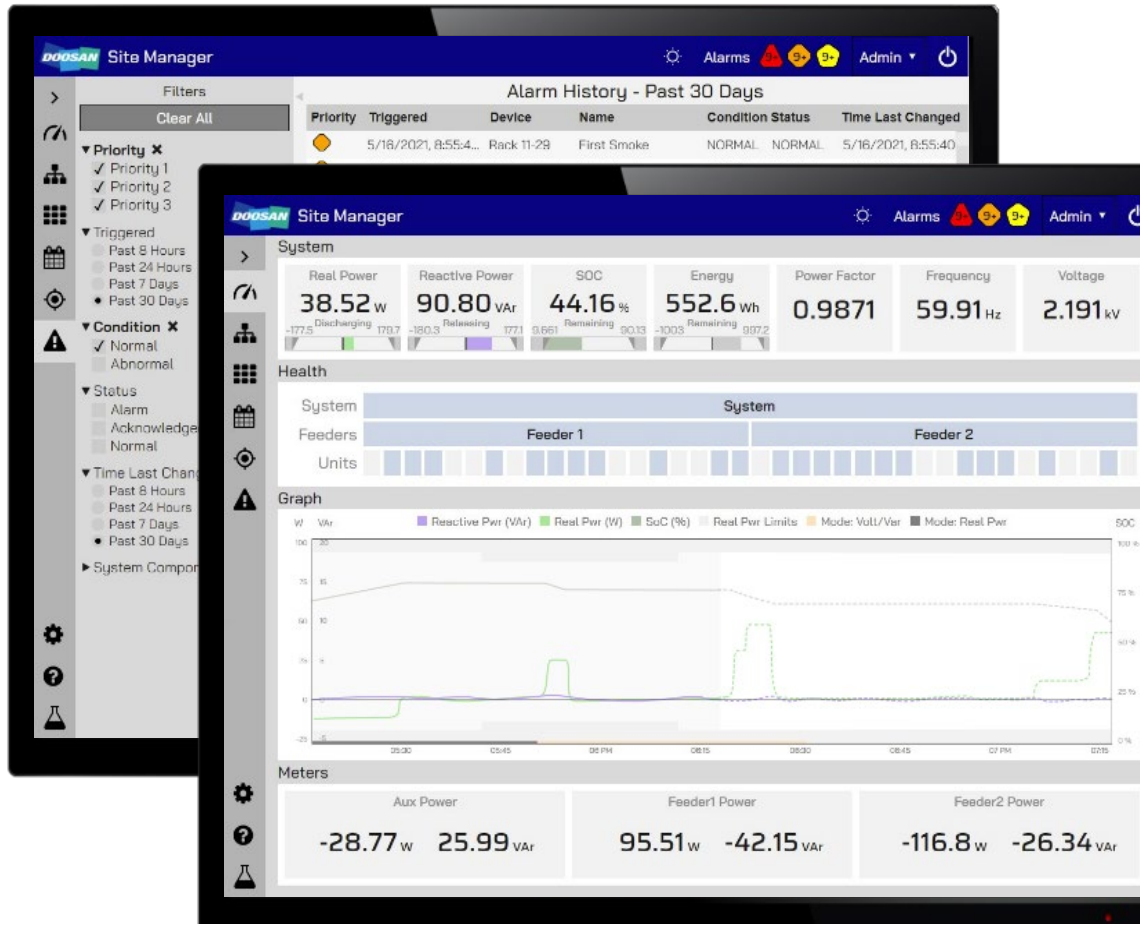
The Doosan GridTech Intelligent Controller (DG-IC®) gives you flexibility and real-time intelligence to run BESS safely and efficiently.

Key Capabilities:

- Safely monitors and controls energy assets in real-time
- Supports grid reliability and power quality
- Provides flexible, grid-stabilizing operating modes
- Reduces outages and defers costly grid upgrades
- Seamlessly integrates batteries, inverters, and DERs, including hybrid system support.

Why It Matters:

DG-IC® delivers the real-time control and intelligence you need to operate safely, reliably and efficiently at any scale.



DOOSAN GRIDTECH

Real-Time Battery Intelligence You Can Act On

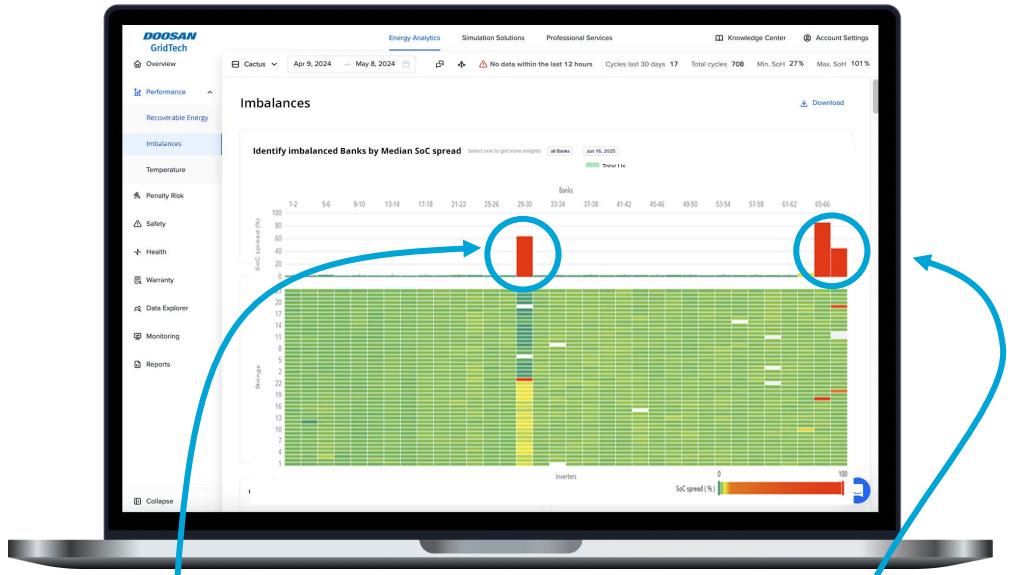
Our Doosan GridTech Performance Analytics (DG-PA) gives you visibility into battery health from day one so you can catch issues early, protect uptime and extend asset value.

Key Capabilities:

- Real-time battery health and degradation insights
- Commissioning validation and early issue detection
- Warranty compliance and system safety tracking
- Maintenance and tuning recommendations
- Vendor-agnostic

Why It Matters:

The DG-PA helps identify early degradation, improve warranty compliance, and take protective action before performance suffers.



With DG-PA, we move beyond control, providing the intelligence needed to identify and address battery issues before they impact performance.

DOOSAN GRIDTECH

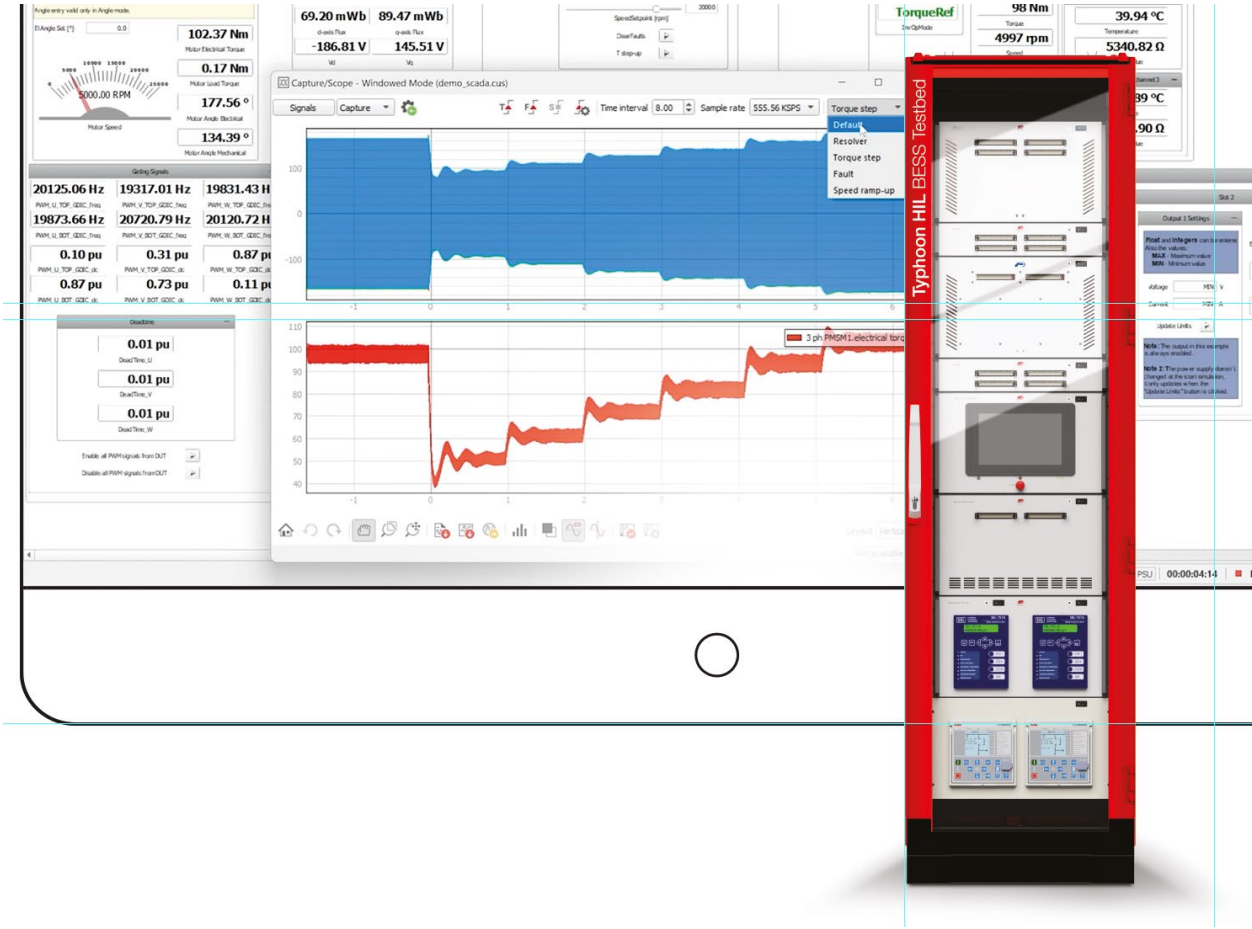
Catch Integration Issues Early

We partner with Typhoon HIL to deliver high-fidelity, real-time testing for utility-scale BESS and PV projects.

Benefits for Clients:

- Catch integration issues early
- Pre-validate control logic
- Improve software reliability
- Speed up commissioning
- Align engineering & field teams
- Build confidence with lab-verified performance

Controller Hardware-in-the-Loop (C-HIL) hardware represents Inverter and BESS components at the highest fidelity possible.



DOOSAN GRIDTECH

De-Risking and Accelerating BESS Projects with Typhoon HIL

Virtual Commissioning, Real-World Confidence

De-Risk System Integration
- Emulates grid & DER behavior
- Detects issues before deployment
- Validates multi-vendor systems

Accelerate Commissioning
- Pre-commissions in the lab
- Cuts onsite time and costs
- Confirms fast control response

Simplify Grid Code Compliance
- Verifies grid code performance
- Eases utility approvals

Optimize Across the Lifecycle
- Builds digital twins
- Speeds up software updates
- Improves system performance

O&M That Keeps Your BESS Performing Like Day 1

From performance guarantees to lifecycle support, we protect your system and your ROI.

Service Highlights

- Proven O&M expertise across 800+ MWh globally
- Performance guarantees and Long-Term Service Agreements (LTSA) that protect your investment
- Complete system support - hardware, software and controls

Trusted By Energy Leaders Since 2011

We're pioneers in the BESS industry. Our partnerships date back to 2011 when battery storage was still emerging.

Value Delivered

Safer systems. Faster timelines. Better returns.

Problem	Our Solution	Benefit
Incompatibility	DG-IC + Open Standards	Smooth Integration
Delay & Risk	C-HIL validation	Faster go-live
Underperformance *(Financially or Operationally)*	Custom dispatch optimization	Higher ROI, better uptime
Grid compliance	Utility-grade controls + safety	Smoother interconnection

DOOSAN GRIDTECH

We Protect What You've Built

Layered security, compliance alignment and proactive risk management built into every system.

Defense-in-Depth Architecture

Internal and perimeter network protections, with layered safeguards at the device, server, and application levels.

Access & Integrity Controls

Role-based access, data validation, and error-checking mechanisms to maintain secure system operation.

Organizational Policies & Training

Defined employee security practices and compliance procedures to minimize human error.

IT Security Services & Controls

Ongoing monitoring, patching, and modeling of security infrastructure to meet utility-grade standards.

Logical & Physical Protections

Safeguards at both the software and hardware levels for clients, servers, and control systems.

Why Energy Leaders Choose Doosan GridTech

We help utilities, IPPs, developers and EPCs launch faster, operate smarter and scale safely – backed by more than a decade of proven BESS success.

Capability	Doosan GridTech	Competitors	What This Means for You
In-House PPC Software	☑ DG-IC®	✗ Often 3rd party	Faster updates, no 3rd party delays
Pre-Commissioning Lab	☑ Typhoon C-HIL testing	✗ Rare	Fewer field issues, faster commissioning
Utility DNA	☑ Originated from utility needs	✗ Vendor-centric	Built to meet your operational realities
Turnkey Project Experience	☑	☑	One trusted partner every step of the way
Compliance and Safety	☑ Exceeds industry standards	⚠ Varies	Lower regulatory risk, peace of mind
Analytics	☑ DG-PA™	⚠ Limited visibility	Real-time battery intelligence
Corporate Backing	☑ Doosan Group	⚠ Varies	Stability and long-term support

DOOSAN GRIDTECH

Leadership and Reliability You Can Trust

Experienced leaders driving innovation, safety and success.

Steve Levy
Chief Executive Officer

Steve Hummel
Chief Technology Officer

Lori Sutton
Chief Marketing Officer / Global Sales

Jen Young
Chief Operations Officer

Han Jung
Chief Financial Officer

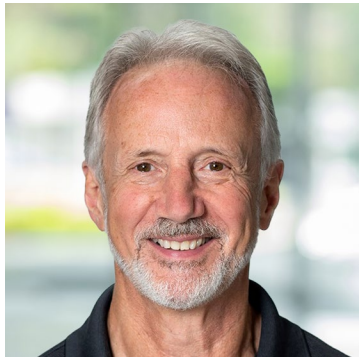
Cindy Rodman
Director, Human Resources

Paul Mazlin
Australia Country Manager

Expertise Behind Your BESS Software Success

Trusted experts powering intelligent control, seamless integration and long-term reliability.

Steve Hummel, PhD
Chief Technology Officer
45 Years Experience (7 BESS)
Former PV Powered & Advanced Energy



Allan Gregg
Head of SW Systems Engineering
36 Years Experience (13 BESS)
Former FlexGen, DynaPower & Sungrow

Justin Wolf
Head of SW Engineering
30 Years Experience (5 BESS)
Former Powin

Ben Davis
Head of Research & Development
13 Years Experience (6 BESS)

Stephen LaPlante
Head of Special Projects
14 Years Experience (10 BESS)

The Right Partner Makes All the Difference

We are a team deeply rooted in utility operations, delivering with the strength, experience, and long-term support of a global leader.

Proven Global Experience
+800MWh deployed across leading energy markets

Smart, Scalable Controls
In-house software built to grow with your needs

Full-System Support
Reliable, safe, and optimized for long-term performance

Here for the Long Haul
We’re committed to your success beyond deployment

Let’s Build Smarter Energy Storage Together!

Name, Title
Email
Phone
doosangridtech.com

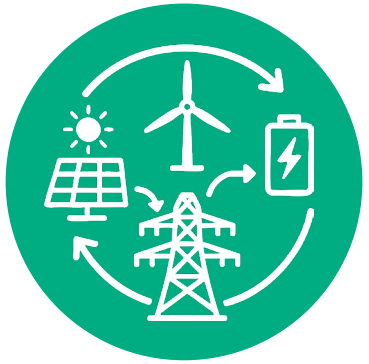
Thank you for considering Doosan GridTech

APPENDIX

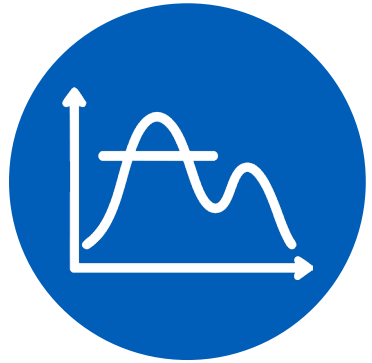
We Offer Dynamic Solutions for Various Energy Needs

Grid Stabilization
Manage fluctuations in electricity demand, ensuring a consistent and reliable power supply

Load Shifting
Store energy during low demand and release it during high demand



Renewable Integration
Store excess renewable energy for use when generation drops



Peak Shaving
During periods of high electricity demand, batteries can discharge stored energy

Seamless Integration with Industry-Leading OEMs

For more than a decade, we have integrated the best technology available – no vendor lock-in, maximum performance.

Battery Suppliers

HTHIUM · Gotion · CATL · SAMSUNG SDI · BYD · LG Chem · MITSUBISHI POWER

Inverter Suppliers

epcpower · SMA · POWER ELECTRONICS · Ingeteam · Parker · HYUNDAI PLASPO · SK innovation

Emerging Battery Partner HITHIUM

Expanding our LFP supply options for grid-scale energy storage

Who Is Hithium

Leading global manufacturer specializing in stationary energy storage batteries, heavily focused on large-scale grid storage.

Product Focus

Core expertise in LFP battery technology, which is well known for safety and long cycle life.

Manufacturing Scale

Rapidly expanding manufacturing footprint, with a 10GWh annual production capacity in Mesquite, Texas.

Why It Matters for Us

Hithium's portfolio broadens our supplier base for safe, bankable LFP solutions.

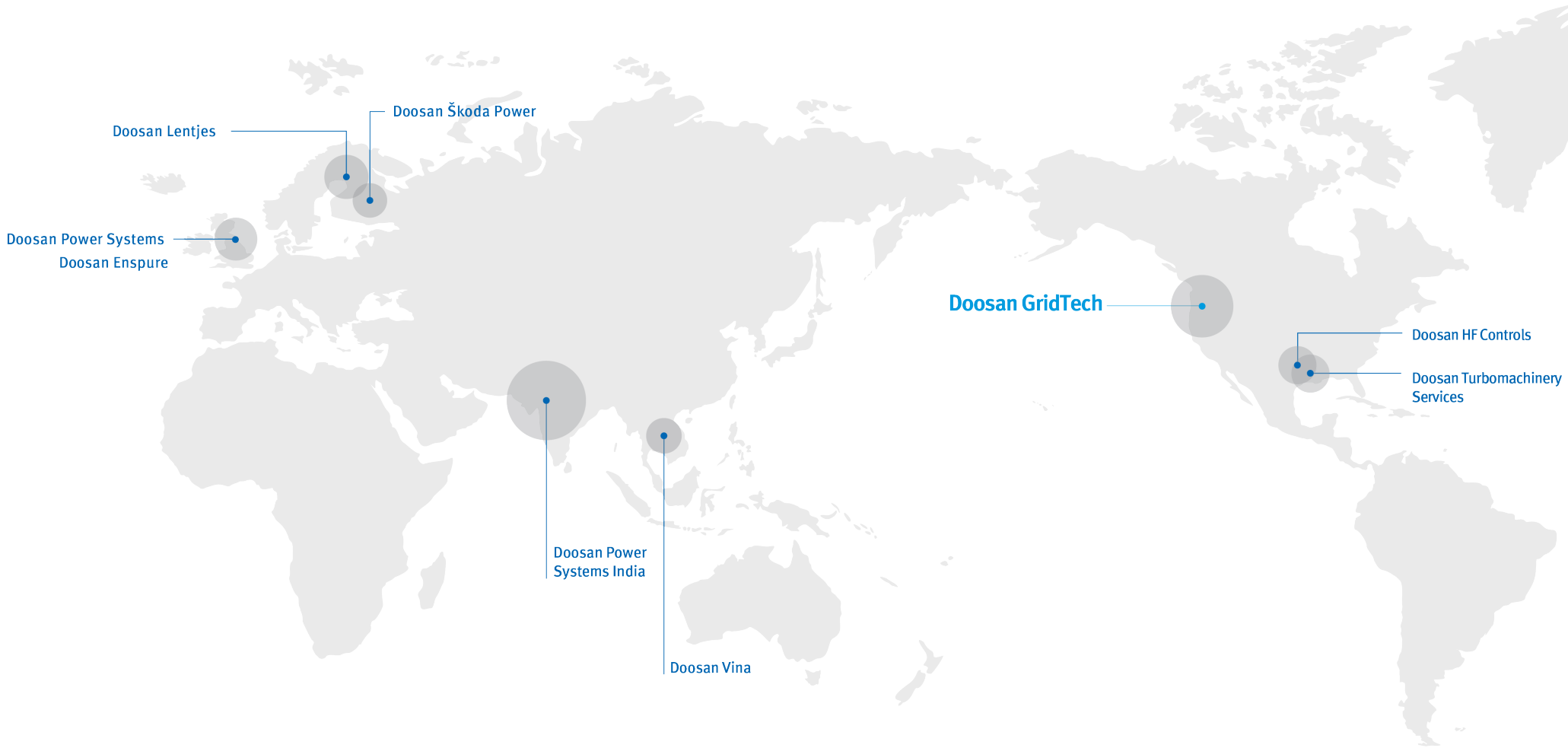
Founded In
2016

Shipped to Date
+50 GWh

Market Position
Tier-1

Doosan Group: A Century of Innovation You Can Trust

Founded in 1896	40+ Countries	$15B Revenue	129 Years of Industrial Leadership



DOOSAN GRIDTECH

DOOSAN GRIDTECH HISTORY

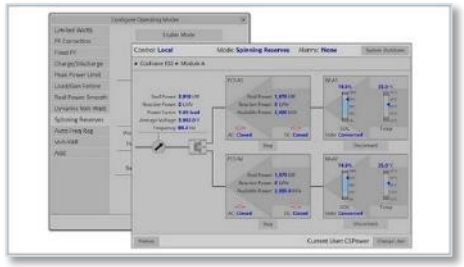
Pioneering Energy Storage Since 2011

2011

1Energy Systems founded in Seattle, WA

2012

1st DG-IC installed at a utility substation



2013

1st MESA-based ESS installed at Snohomish PUD

2015

Austin Energy receives DOE SHINES Award

2016

1Energy wins 2016 Grid Edge Award

2017

Doosan GridTech chosen to install LADWP's first BESS

Pioneering Energy Storage Since 2011

Doosan GridTech wins 2018 Grid Edge Innovation Award

Vena Energy selects Doosan GridTech as EPC for Wandoan South BESS

Vena Energy selects Doosan GridTech as EPC for Tailem Bend 2 Hybrid BESS

Doosan GridTech made a significant investment in a state-of-the-art Typhoon HIL test simulation lab

2018 — 2019 — 2020 — 2021 — 2022 — 2023 — 2024

Doosan GridTech opens office in Australia

Doosan GridTech chosen to install Neoen's Capital BESS

Tampa Electric selects Doosan GridTech as System Integrator for Wave 1 BESS Portfolio

DOOSAN GRIDTECH

DOOSAN GRIDTECH

Tailem Bend 2 45MWh Hybrid BESS with 100MW PV

Vena Energy

Location: Tailem Bend, Australia
Offtaker: ElectraNet
Battery: CATL
Inverter: Power Electronics
Control Software: DG-IC®

MESA
Open Standards for Energy Storage

Customer Outcome

Enhance grid reliability and renewable integration by allowing the solar farm and battery to operate independently or together, maximizing output and dispatching clean energy when it's needed most.

Key Challenge Solved

Achieved the **first, and only**, seamless coordination between solar **PV and battery storage in Australia**, along with responsive frequency control to support the National Electricity Market while avoiding duplication of grid infrastructure.

Doosan Role

Doosan GridTech served as the EPC contractor, system integrator, PPC provider, and O&M partner.

Status

Commissioned.

DOOSAN GRIDTECH

Capital Battery 200MWh Standalone BESS

Neoen

Location: Australian Capital Territory – Australia
Offtaker: Neoen
Battery: CATL
Inverter: Power Electronics
Control Software: DG-IC®

MESA
Open Standards for Energy Storage

Customer Outcome

To support and stabilize the ACT electricity grid by dispatching power during peak demand periods and grid emergencies, particularly during heatwaves when large fossil fuel generators are vulnerable to failure.

Key Challenge Solved

Delivered ultra-fast frequency response and reliable power dispatch to prevent blackouts and maintain grid stability in a region with growing renewable energy penetration and extreme climate risks.

Doosan Role

As part of a consortium led by Doosan Enerbility, Doosan GridTech serves as the EPC contractor, system integrator, PPC provider, and O&M partner.

Status

In Progress.

DOOSAN GRIDTECH

Wandoan South 150MWh Standalone BESS

Vena Energy

Location: Western Downs Region – Australia
Offtaker: AGL Energy
Battery: Samsung SDI
Inverter: Power Electronics
Control Software: DG-IC®

MESA
Open Standards for Energy Storage

Customer Outcome

To support Queensland's transition to renewable energy by enhancing grid stability, enabling frequency response, and storing clean energy.

Key Challenge Solved

Deliverd a large-scale, grid-compliant BESS that reliably provides rapid frequency control and voltage support to the National Electricity Market, while ensuring thermal safety in extreme Queensland climate conditions.

Doosan Role

Doosan GridTech served as the EPC contractor, system integrator, PPC provider, and O&M partner.

Status

Commissioned.

DOOSAN GRIDTECH

Wave 1 Portfolio Three Standalone BESS Sites Totaling 200MWh

Tampa Electric Company

Location: Multiple Locations, Florida (3 separate sites)
Offtaker: Tampa Electric Company
Battery: Gotion Hi-Tech
Inverter: SMA
Control Software: DG-IC®

MESA
Open Standards for Energy Storage

Customer Outcome

To provide distributed peaking capacity and grid flexibility to support cleaner energy delivery, enhance system resilience, and reduce costs for customers.

Key Challenge Solved

Deployed three distributed BESS sites that seamlessly integrate with the grid, deliver sub-second dispatch, and avoid costly transmission upgrades while maintaining reliability.

Doosan Role

Doosan GridTech serves as the system integrator and PPC provider.

Status

In Progress.

THANK YOU