

DOOSAN GridTech

ABOUT DOOSAN GRIDTECH

Powering the Future of Battery Energy Storage

YOUR STRATEGIC PARTNER IN BATTERY ENERGY STORAGE

Doosan GridTech is at the forefront of transforming the energy landscape, delivering innovative technical energy storage solutions that empower our customers to thrive in the renewable energy industry and boost profitability. Our expertise spans the integration, management, and control of Battery Energy Storage Systems (BESS) and a diverse array of distributed energy resources. We expertly navigate every facet of the BESS and Microgrid value chains, from system design and installation to testing and ongoing maintenance.

We firmly believe that sustainable economic growth and environmental restoration begin with a robust, low-carbon power grid. Our dedicated team comprises power system engineers, software developers, and energy storage specialists, all working collaboratively to support utility-scale power producers in evaluating, acquiring, integrating, and optimizing energy storage, solar power, and other renewable energy resources. With our battery storage experts, we have successfully designed and constructed numerous installations across the Americas and Asia-Pacific, contributing nearly 1 GWh of capacity to the grid.

COMPANY OVERVIEW

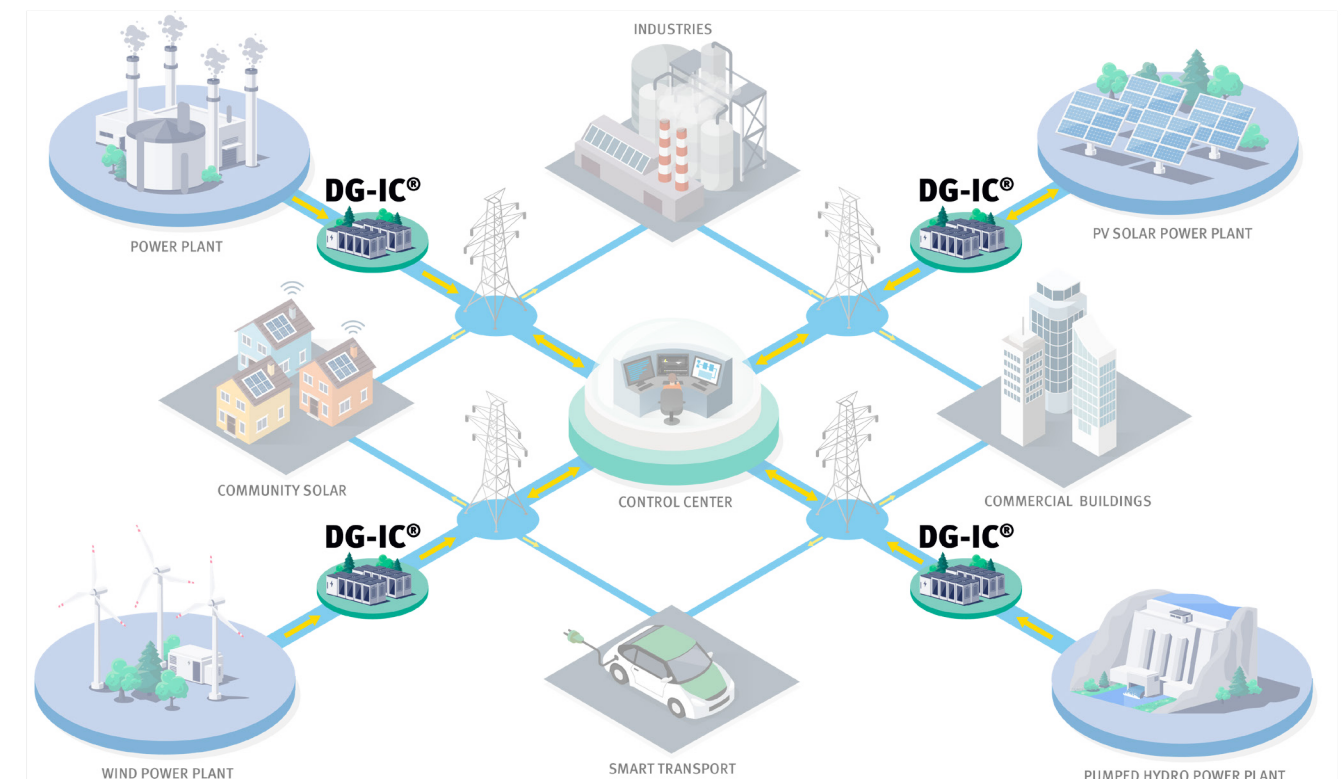
Doosan GridTech is a leader in battery energy storage integration, control software, and long-term operation support. Headquartered near Seattle with a regional office near Melbourne, we partner with utilities, developers, and IPPs to deploy clean energy systems that are intelligent, reliable, and scalable.

A subsidiary of the \$15B Doosan Group, one of South Korea's oldest industrial conglomerates, Doosan GridTech brings the perfect balance of

agility and stability. Since our founding in 2011 (as 1Energy Systems), we've pioneered open-standard control architectures, launched some of the world's most complex BESS deployments, and built a nearly 1GWh project portfolio across the U.S., Australia, and Southeast Asia.

We're not just a vendor—we're a long-term strategic partner bringing industry-leading and performance-proven software, engineering, and global procurement to the modern grid.

DOOSAN GRIDTECH IS UNIQUELY POSITIONED AS A TURNKEY, FUTURE-READY BESS SYSTEM INTEGRATOR AND EPC PLAYER TO CAPITALIZE ON THE GLOBAL BESS MARKET TAILWINDS



THE PROBLEM WE SOLVE



SYSTEM COMPLEXITY CREATES RISK

Battery energy storage systems have become a cornerstone of the modern energy transition, but deploying them is far from plug-and-play.

The biggest challenge utilities, IPPs, and developers face isn't the battery itself; it's integrating the entire system. Every project must bring together a diverse set of technologies: batteries, inverters, transformers, HVAC, fire suppression, power plant controller, communications infrastructure, and SCADA systems. These components often come from different vendors with unique protocols and interfaces. The result? Integration risk. Projects without strong coordination experience can incur

costly commissioning delays, underperformance, safety risks, and compliance issues with UL, IEEE, NERC, or local interconnection standards.

Interoperability is frequently poor or undocumented. Vendors try to shift responsibility when something breaks. And EPCs are often left bridging technical gaps across multiple subsystems, without a single entity accountable for the outcome. This fragmented model threatens project timelines, inflates costs, and introduces long-term operational uncertainty. For grid operators and asset owners under pressure to decarbonize while ensuring reliability, that's an unacceptable risk.

OUR INTEGRATED SOLUTION

Doosan GridTech solves this problem with a complete, software-led integration solution that brings order to system complexity. We don't just deliver energy storage hardware; we deliver a system that integrates every component into a single, safe, reliable, and high-performance system. **From concept to commissioning and beyond, we take ownership of performance across the full BESS lifecycle.**

Our solution begins with turnkey system design—combining batteries, inverters, transformers, and controls into one grid-compliant architecture. Unlike integrators that rely on off-the-shelf software, we deploy our own in-house Power Plant Controller,

Doosan GridTech Intelligent Controller (DG-IC®), ensuring no integration gaps and full alignment between hardware and control logic. Before systems are deployed in the field, we validate every configuration in our real-time simulation lab using Typhoon HIL technology—catching issues early and reducing field commissioning time.

We design for compliance, and we stay with you through long-term operations and maintenance agreements that include performance guarantees, analytics-driven insights, and software updates. **In short: we turn integration risk into operational confidence—and complexity into simplicity.**

DESIGN AND SIMULATION



FROM CONCEPT TO COMMISSIONING: ENGINEERED FOR CONFIDENCE

Every successful energy storage project begins with a strong foundation. Our design and simulation services provide early certainty and reduce risk before deployment.

Key Offerings:

- Preliminary System Design** - Optimized sizing, modeling, and component selection.
- Lifecycle Analysis** - Usage simulation and performance forecasting.
- Technical Documentation** - Electrical layout, communication design, and protection schemes.

Voice of the Customer Lab

- Simulate site-specific performance using high-fidelity Typhoon HIL testing:
- Validate controller and system behavior under real-world conditions
 - Test against grid rules and operating scenarios
 - Reduce commissioning time by up to 50%
 - Enable Digital Twin readiness for future diagnostics

SOFTWARE AND ANALYTICS



REAL-TIME CONTROL. ACTIONABLE INSIGHTS. PROVEN RESULTS.

Our software platform provides utilities and IPPs with secure, scalable tools for real-time control and fleet-wide asset management.

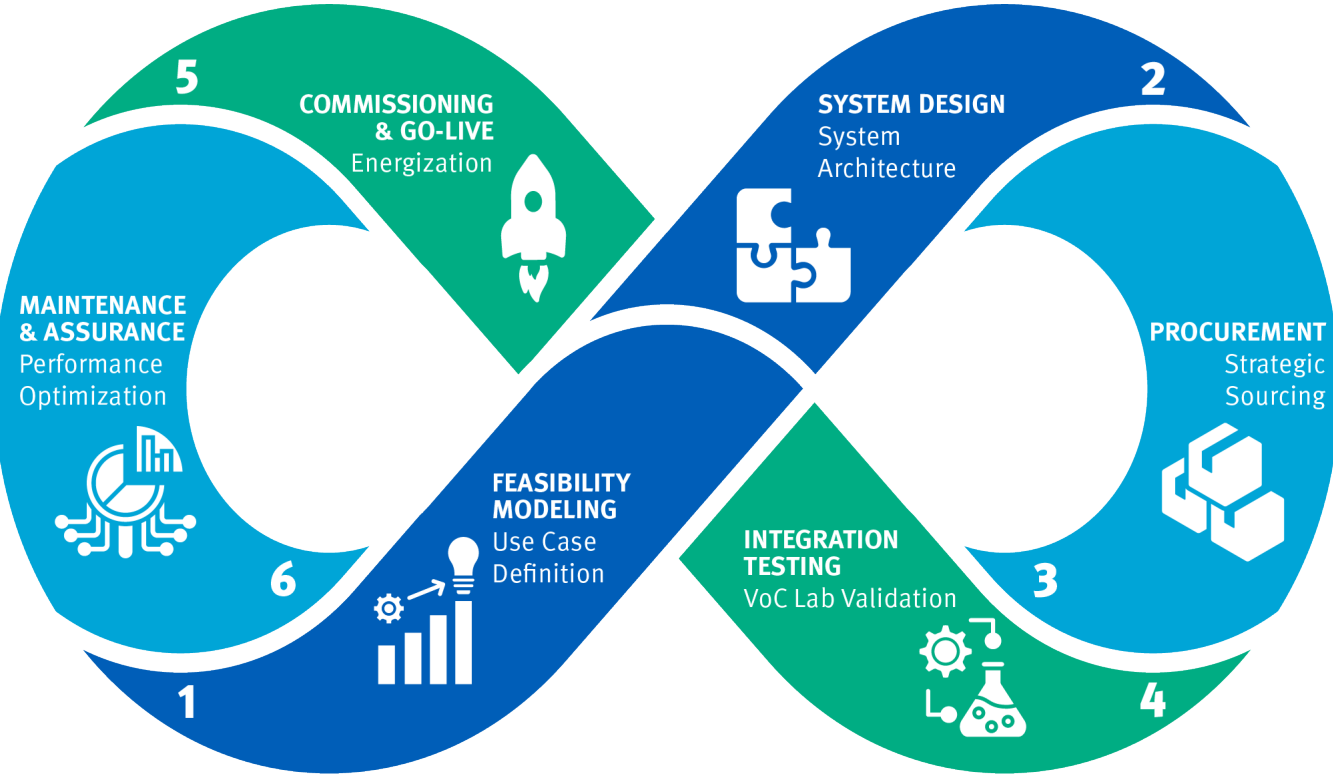
Doosan GridTech Intelligent Contoller® (DG-IC®)

- Hybrid Power Plant Controller for systems up to 800 MWh
- Advanced configurability and multiple operating modes
- Open protocol support
- Seamless DER integration with sub-second response time

Doosan GridTech Performance Analytics (DG-PA), powered by TWAICE

- Tune systems for optimal efficacy and ROI
- Identify anomalies before they become failures
- Validate new components during commissioning
- Maintain warranty compliance automatically

INTEGRATION & LIFECYCLE SERVICES



SMARTER, SCALABLE SYSTEM INTEGRATION...AND BEYOND

Doosan GridTech delivers comprehensive lifecycle services that span every stage of your energy storage project. From early concept and feasibility modeling through detailed design, procurement, commissioning, and long-term maintenance, we serve as your end-to-end integration partner.

Integration Services

We begin with a risk-free preliminary design and system modeling to determine the optimal configuration for your application. Our team manages procurement from your selected vendors, ensuring compatibility, quality, and timely delivery. During deployment, we handle site integration, factory and field testing, and commissioning, all validated through our Voice of the Customer Lab to minimize risk before your system reaches the field.

Lifecycle Services

After energization, our long-term service agreements provide performance guarantees, ongoing system tuning, software updates, and predictive maintenance. With real-time monitoring, field-proven analytics, and proactive support, we keep your system optimized for years to come.

WHAT SETS US APART



At Doosan GridTech, we combine proven project experience with intelligent control software and seamless integration. Our technology empowers customers to deploy energy storage with confidence, flexibility, and long-term performance in mind.

Proven Expertise in Energy Storage Solutions

Our team has delivered energy storage systems around the world with scalable designs and adaptable controls. We help customers maximize performance through configurable operating modes that meet complex grid and operational needs.

Advanced Technological Solutions

The DG-IC® platform gives you real-time, site-level control of your energy storage assets. It streamlines operations, supports renewable integration, and enhances grid reliability from deployment through ongoing maintenance.

End-to-End Energy Storage Solutions

We manage every phase of your project—from preliminary design through commissioning and long-term service. Our hardware-agnostic approach ensures tailored, cost-effective solutions aligned with your operational goals.

Effortless Integration with Open Standards

Our systems use open protocols like MESA, SunSpec, DNP3, and Modbus for easy integration with existing platforms. This vendor-neutral design reduces complexity and allows you to scale without being locked into proprietary ecosystems.

Real-Time Simulation for Confident Decision-Making

At our Voice of the Customer Lab in Bellevue, WA, you can simulate real-world scenarios using Typhoon HIL technology. This process validates system behavior, accelerates commissioning, and reduces integration risk before your system reaches the field.

A Century of Expertise Working for You

As part of the Doosan family, we bring the innovation of a technology leader backed by 129 years of industrial strength. Our clients benefit from proven reliability, long-term warranties, and risk mitigation from a globally trusted partner.

GLOBAL PROJECT EXPERIENCE

Doosan GridTech has delivered utility-scale energy storage projects across North America and Australia. From early deployments in California and Texas to large-scale systems in the Australian National Electricity Market, our projects support renewable integration, frequency regulation, and portfolio control, proving our ability to navigate complex grid and regulatory environments with confidence.

Project	Client & Technology	Use Cases
Bayside BESS Bayside, FL (20 MW / 40 MWh)	Client: Tampa Electric Battery: Gotion Li-ion PCS: SMA PPC: DG-IC®	Peak shifting, voltage support, reactive power support, ramp rate control, fast frequency response.
Lake Mabel BESS Lake Mabel, FL (40 MW / 80 MWh)	Client: Tampa Electric Battery: Gotion Li-ion PCS: SMA PPC: DG-IC®	Peak shifting, voltage support, reactive power support, ramp rate control, fast frequency response.
Wimauma BESS Wimauma, FL (40 MW / 80 MWh)	Client: Tampa Electric Battery: Gotion Li-ion PCS: SMA PPC: DG-IC®	Peak shifting, voltage support, reactive power support, ramp rate control, fast frequency response.
Tailem Bend II BESS South Australia, AUS (41.5 MW / 45 MWh)	Client: Vena Energy Battery: CATL Li-ion PCS: Power Electronics PPC: DG-IC®	Fast frequency response, ancillary services, voltage support.
Capital BESS Australian Capital Territory, AUS (100 MW / 200 MWh)	Client: Neoen Battery: CATL Li-ion PCS: Power Electronics PPC: DG-IC®	Ancillary services, arbitrage, peak shaving, block/load shifting, renewable firming and smoothing, virtual inertia.
Wandoan South ESS Queensland, AUS (100 MW / 150 MWh)	Client: Vena Energy Battery: Samsung Li-ion PCS: Power Electronics PPC: DG-IC®	Energy arbitrage, frequency control, ancillary services.
Beacon Solar Plant ESS Mojave Desert, CA (20 MW / 10 MWh)	Client: LADWP Battery: Samsung Li-ion PCS: SMA PPC: DG-IC®	Solar integration, frequency response services, local voltage support.
Micanopy ESS Microgrid Micanopy, FL (8.3 MW / 11.7 MWh)	Client: Duke Energy Battery: Samsung Li-ion PCS: SMA	Islanding, frequency regulation.

Project	Client & Technology	Use Cases
Jennings ESS Microgrid Jennings, FL (5.5 MW / 5.5 MWh)	Client: Duke Energy Battery: Samsung Li-ion PCS: SMA	Islanding, frequency regulation.
Atterbury PV + S Microgrid Camp Atterbury, IN (5 MW / 5 MWh)	Client: Duke Energy Battery: Samsung Li-ion PCS: SMA PPC: DG-IC® PV: 2 MW array	Islanding, frequency regulation.
Nabb ESS Microgrid Nabb, IN (5 MW / 5 MWh)	Client: Duke Energy Battery: Samsung Li-ion PCS: SMA PPC: DG-IC®	Islanding, frequency regulation.
John Hopkins PV + S Microgrid St. Petersburg, FL (2.5 MW / 18 MWh)	Client: Duke Energy Battery: CATL Li-kon PCS: Dynapower PV: .8 MW array	Islanding, frequency regulation.
Everett ESS Everett, WA (2 MW / 7 MWh)	Client: Snohomish PUD Battery: Vanadium Redox Flow PCS: Siemens PPC: DG-IC® and DERO®	Energy arbitrage, peak shifting.
Glacier ESS Glacier, WA (2 MW / 4.4 MWh)	Client: Puget Sound Energy PPC: DG-IC®	Peak shaving, islanding, and frequency response.
Hardeson ESS Everett, WA (2 MW / 1 MWh)	Client: Snohomish PUD Batteries: Mitsubishi & LG Li-ion PCS: Parker Hannifin PPC: DG-IC® and DERO®	Peak shaving, renewables smoothing, energy arbitrage/system flexibility.
Mueller ESS Austin, TX (1.8 MW / 3.2 MWh)	Client: Austin Energy Battery: Samsung Li-ion PCS: Younicos PPC: DG-IC® and DERO®	Distributed-solar integration, bulk power market services, local power quality support.
Kingsbery ESS Austin, TX (1.5 MW / 3 MWh)	Client: Austin Energy Battery: LG Chem Li-ion PCS: Parker Hannifin PPC: DG-IC® and DERO®	Distributed-solar integration, bulk power market services, local power quality support.
Horn Rapids ESS Richland, WA (1 MW / 4 MWh)	Client: Energy NW Battery: CATL Li-ion PCS: Power Electronics PPC: DG-IC®	Solar smoothing, firming, and shifting.
Parkview ESS Kalamazoo, MI (1 MW / 1 MWh)	Client: Consumers Energy Battery: Samsung Li-ion PCS: Ingeteam PPC: DG-IC®	Peak shaving, voltage support.

Experience the Doosan GridTech Advantage

Doosan GridTech is more than just a technology provider—we're your strategic partner in advancing the energy future. With our comprehensive, off-balance-sheet design services, we bring the expertise to design, procure, deliver, commission, and provide ongoing operations and maintenance for your projects.

Connect with us today to explore how our hardware-agnostic BESS or hybrid PPC solutions can help you overcome operational challenges and lead the way in sustainable energy storage.