

TRANSFORMERS FOR BATTERY ENERGY STORAGE SYSTEM (BESS)



ISO 9001-2015 Certified

Minority Business Enterprise



Battery Energy Storage Market and its Drivers

A Battery Energy Storage System (BESS) is an electrochemical device that collects and stores energy from the grid or a power plant, and then discharges that energy at a later time to provide electricity or other grid services when needed. BESS is a fast-growing market. The installed capacity is expected to reach 1.4 GW by the end of 2020, which is a growth of 7X over 5 years, and exceed 2.5 GW by 2023.

Primary drivers for BESS market growth include:

- The increase in need for system flexibility due to Wind and Solar projects deployment, along with rapid decrease in the cost of battery technology
- The continuous innovation in BESS and policies to ramp up BESS deployment
- Battery energy storage is one of several technology options that can enhance power system flexibility and enable high levels of renewable energy integration

Transformers for BESS Application

Virginia-Georgia Transformer (VT-GT) is a market leader in power transformers and has been in business for nearly 50-years. Our distinguished legacy includes:

- Installed base of over 15,000 transformers
- Technical expertise in providing solutions to renewable power - wind, solar, and battery energy storage - across large and medium main power transformers and padmount
- **Leadership in design and manufacturing knowledge and experience for the specific requirements of BESS applications, including special considerations for:**
 - Over-voltages
 - Inverter applications
 - Harmonics profile
 - Saturation, power factor

VT-GT is a proud American manufacturer – complying with the President’s Executive Order on bulk power systems and majority domestic sourcing with regard to SEC 232. VT-GT offers transformers with a 60-year life through best-in-class design and manufacturing, boasting a large installed base and some of the best lead times in the industry. All of VT-GT’s transformers are custom built to client specifications

BESS Value Drivers

ROBUST ENGINEERING

MINIMAL DOWNTIME

24/7 SERVICE SUPPORT

Solutions

Design and Manufacturing technology for BESS special requirements:

- ✓ System Harmonic Profile
- ✓ Over voltages
- ✓ Saturation
- ✓ Power Factor

60 YEAR LIFE THROUGH:

- ✓ Industry Leading MTBF*
- ✓ Robust Engineering
- ✓ Flawless Execution
- ✓ Continuous Monitoring
- ✓ 5Q Quality Model
- ✓ 24/7 Continuous Monitoring & Service
- ✓ World Class Partial Discharge Levels

MTBF*-Mean Time Between Failures

24 / 7 SERVICE SUPPORT:

- ✓ Experienced Service Team with state-of-the-art equipment & Pan-US coverage
- ✓ Monitoring Capability at SCADA and Remote level
- ✓ Aftermarket Spare Parts & Service Team
- ✓ 24 / 7 Call Support



OUR HISTORY

ABOUT US

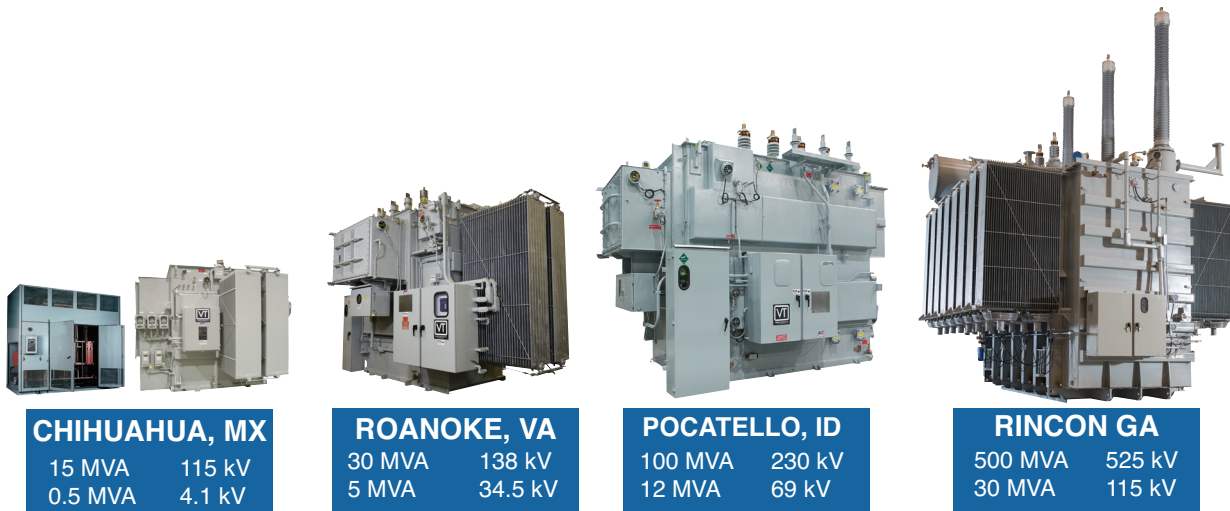
Virginia Transformer – Georgia Transformer is a US-based Corporation that has been in business for nearly 50 years with 4 plants in North America designing and manufacturing a full line of Power Transformers from 500 kVA to 500 MVA, and up to 500 kV class.

Our Value Proposition: We promise to supply the most “Resilient” Power Transformer designed for 60 years life, that will meet 24/7/365 resilient power needs of the Customer.

Our value proposition is based on three key process philosophies:

- Robust Design** developed by expert engineers with over 300 years of electrical design experience using proprietary digital design tools, verified by off-the-shelf arsenal of digital simulation tools and executed with efficient proven processes
- Flawless Execution** based on 3T-Pillars: Training, Technology and Transformer Manufacturing Processes
- Continuous Monitoring** of Transformers using VCM Technology supported by 24/7 full-fledged Service Organization

Virginia – Georgia Transformer takes pride in being a Minority Business Enterprise - equipped with newer technology, state-of-the-art equipment, highly qualified & experienced engineers and overall improved processes – which allows us to provide the most reliable products, and the shortest lead time in the Industry.



Over 250 MVA Installed Capacity for BESS Market in past 3 years