

# VANGUARD



## VANGUARD® TEES UP POWERFUL SOLUTION FOR CLUB CAR

For more than 60 years, Club Car has been an industry leader in the development and production of golf carts and utility vehicles. In order to remain the market leader in golf, Club Car knew they needed a battery partner that could help drive them forward. Enter Vanguard. Joe Deal, golf engineering leader at Club Car, answered some questions about the battery solution Vanguard provided for their Tempo Lithium-Ion Fleet product.

### **Q. WHAT CHALLENGES WAS CLUB CAR FACING WHEN IT ENTERED THE BATTERY-POWERED GOLF CART MARKET?**

**A.** Club Car initially ventured into the lithium-ion battery market with our Onward products, working with a battery manufacturer based outside the United States. We launched our first lithium-ion battery-powered golf car in 2018.

When we launched, we had huge competitive pressures. Shortly after the initial launch, we knew we had to make some pretty significant improvements relative to cost and performance. So, we began to look for a new partner to meet our needs.

### **Q. WHAT MADE VANGUARD THE RIGHT PARTNER FOR CLUB CAR?**

**A.** When we were looking for a new partner, it became clear that the Briggs & Stratton team would be the perfect fit to compete in the battery power market. We obviously knew

of Briggs & Stratton for its solid reputation with Vanguard engines. We quickly learned they are a leader in lithium-ion battery pack technology, too.

Club Car was also excited about the opportunity to have a partner based in the United States. Not only did this make the supply chain shorter, it also offered the possibility for the product development to move more quickly. Everyone understood the mission and had a can-do attitude. Especially on the Briggs & Stratton side — they always found a way.

### **Q. TELL US ABOUT THE DEVELOPMENT PROCESS. HOW DID IT DIFFER FROM YOUR PREVIOUS PARTNERSHIP?**

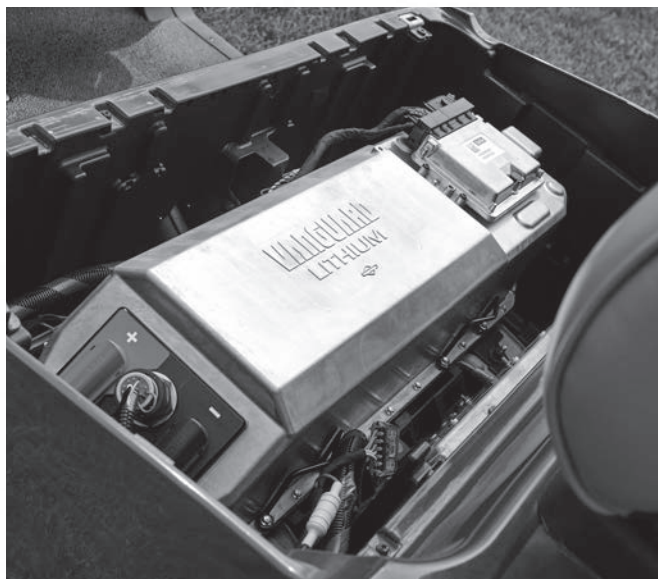
**A.** With the new Tempo line, Club Car was seeking flexibility, adaptability and speed. There was a growing market demand for our product, and we came to Vanguard with a really aggressive seven-month timeline. Briggs & Stratton was up for the challenge and showed their dedication

right away by offering to establish a brand-new facility exclusively dedicated to Club Car. After discussing some options, Vanguard decided to open the facility in Tucker, Georgia; two hours away from Augusta, where we're located. This immediately offered huge efficiencies for the Club Car team.

The ability to get to the facility the same day or the next day to work through any challenges as we went through the development process was a lot more efficient than going halfway around the world. It was really a key decision point in partnering with the Vanguard and Briggs & Stratton team.

**Q. THIS WAS ALL HAPPENING DURING THE HEIGHT OF THE PANDEMIC. DID THAT HAVE ANY IMPACT ON THE PROJECT?**

**A.** The pandemic added its own layer of complexity as did ongoing supply chain challenges. But the Briggs & Stratton team pushed through and opened the Tucker plant on schedule. With the opening of that plant, Club Car got the batteries we needed, and Vanguard actually delivered three times the initial number we had planned.



**Q. CAN YOU TELL US MORE ABOUT THE BENEFITS OF LITHIUM-ION POWER FOR CLUB CAR PRODUCTS?**

**A.** The two biggest benefits of the Lithium-Ion power over the traditional flooded lead battery are the longer life and adaptability offered by the technology. A flooded lead battery lasts four years in a typical golf application. The lithium technology lasts up to eight years, which is a huge increase in value for our customers and for ourselves. The Vanguard Lithium-Ion battery pack was a great solution for Club Car because of its adaptability. Certain parts of the battery can be modified to accommodate a different vehicle.



**Q. WHAT IS A FEATURE OF LITHIUM-ION BATTERY POWER YOU'RE MOST EXCITED BY?**

**A.** The Vanguard Lithium-Ion battery offers features that help make it smart and durable. A Battery Management System (BMS) helps to monitor and measure information like the pack's temperature, charge and discharge currents and voltages of each individual cell bank. That technology can be used by Club Car to help identify ways to continue evolving our cars to perform even better for customers. All of this combined made it the perfect battery for our needs.

**“The lithium technology lasts up to eight years, which is a huge increase in value for our customers and for ourselves.”**

- Joe Deal  
golf engineering leader at Club Car

**Q. WHAT'S NEXT FOR CLUB CAR AND VANGUARD?**

**A.** With Vanguard's help, we were able to create a powerful product that now leads the Lithium-Ion golf car market. Our carts feature a battery that has best-in-class range; going for two and a half rounds on a typical golf course. We absolutely have plans to move forward with other projects as we continuously work to improve our products and offerings. Club Car and Vanguard are truly more successful because of this partnership, and we can't wait to tackle the next challenge together.

**At Vanguard, we do more than power equipment. As your trusted power application partner and a resource for your customers, our driving force is finding a solution that works harder for you. Learn more about partnering with us.**