

Manufacturing Assessment Strategy Enhances Supply Chain & Optimizes Battery for Manufacturing

Our energy storage customer initially approached Zebulon Solutions in need of developing a manufacturing strategy for their proprietary battery technology. In constructing our recommendations, Zebulon Solutions reviewed five areas:

- *Business strategy*
- *Product design*
- *In-house production*
- *BOM and supply chain status*
- *Operational readiness*

From this we formulated a two-stage outsourcing strategy, and identified three additional more tactical areas that we could help: capture and create a detailed bill of materials (BOM); generate a documentation package; and select a suitable contract manufacturer (CM).

Bill of Materials Creation

Generating a BOM is critical to both making informed business decisions and avoiding problems during the production process. We constructed the BOM to show detailed part information and to identify suppliers, costs, lead times and minimum order quantity.

Product Document Package

Creating high quality documentation is tedious but essential to both quoting and manufacturing. We assigned a senior engineer to work on-site with our customer to help produce a comprehensive document package, including drawings, Gerbers, work instructions, and assembly time estimates.

CM Qualification & Selection

Selecting the right CM is complicated, but Zebulon Solutions has decades of experience in contract manufacturing from both sides of the table. For this customer, we began by collaboratively generating a list of musts and wants: location, type of manufacturing, specialized skillsets, logistics, product size, and target production cost. We then assessed ~ 20 tier 2 and tier 1 CMs to determine production capacity, capability and interest. In parallel, we developed a Request for Quotation (RFQ), which we sent to qualified CMs along with the BOM and documentation. After analyzing the RFQ responses, face to face discussions and factory inspections were conducted, pricing was negotiated, and a CM was selected.



Application:

Energy storage

Customer Needs:

- **BOM Creation**
- **Product Document Package**
- **Contract Manufacturer Qualification & Selection**

Outcome:

The customer has begun production with the CM and is delivering their product to market with both reduced cost and lead time.

