

Alternative Energy

State-of-the-art global manufacturing shines for alternative energy company

"Proximity to the end user is a significant driver when considering moving production offshore. For this customer, 95% of the customer's sales are located overseas. Segue closely monitored the transition of the complex control cabinet from the U.S. to our facility in Xiamen, China and thus implemented a 20% cost reduction."

– Brian Desmarais

Vice President of Engineering and Quality
Segue Manufacturing Services



Customer Seeks Proximity to End Markets

The realities of rising fuel costs and heightened environmental awareness are sinking in. This is emphasizing a shift towards alternative energy, such as solar power, to fuel the increasing needs of our society. One of Segue Manufacturing's top customers grows silicon crystals into solar cells using control cabinets. Until recently, the Lowell facility had been building end-to-end more than 400 of these cabinets annually.

"Due to the complex nature of the cabinets, Segue Manufacturing (Segue) is always looking for strategic cost-saving methods and implementing them wherever possible. By leveraging capabilities at our facility in Xiamen, China, we are now more capable than ever of doing this," says Brian Desmarais, Vice President of Engineering and Quality at Segue Manufacturing Services. "In this case, roughly 95% of the customer's sales are located overseas; the effect this has on shipping costs and lead times is undeniable."

Segue's initial undertaking of the control cabinets was a vital production decision for the customer. Segue reduced the customer's costs by 15% the first year with lean manufacturing processes, procured all 225 line items through vendor managed inventory and assembled the cabinet end-to-end in Segue's Lowell facility. "As a contractor, we evaluate our capabilities for each customer and only outsource with their approval. With the addition of the Xiamen plant and increasing cabinet production, it was apparent that moving the production offshore would benefit our customer," continues Desmarais.

Transition to Overseas Manufacturing results in 20% Cost Savings

With the decision to move manufacturing to Xiamen, Segue was responsible for closely monitoring the transition. The first step in executing the move was assigning a project manager to oversee operations. From here, a specialized engineering team worked on perfecting the manufacturing process in the U.S., a crucial aspect in maintaining the level of quality expected by the customer. The fine-tuned process was then documented and submitted for translation in order to meet local Chinese requirements. Concurrently, a specialized Segue team utilized its local presence in China to meet delivery requirements and realize cost savings. Bills of Material were reviewed, the process was certified and Segue ramped up production in Xiamen. In addition, in an effort to divert risk, Segue maintained production of customized cabinets in Lowell. Desmarais states, "Having both global and local presence allows us to appropriately allocate manufacturing between facilities in order to meet specific customer needs."

Transferring production like this can reap tremendous benefits for both a company and its customers. Segue was able to cut down on labor expenses and localize material for an overall 20% cost reduction. Additionally, proximity to the end user significantly reduced shipping costs and lead times. By thoroughly assessing global resources and capabilities, Segue smoothly transitioned a complex process to create optimal success for its customer.

Benefits:

- 20% cost reduction
 - Lower labor costs
 - Localized material
- Reduced lead times and shipping costs
- 100% first pass yield

Processes:

- Cable and harness assembly
- In-house machining
- Kanban, JIT
- Lean manufacturing
- DFT



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