

Free Source Energies Selects Arena PLM to Streamline Processes and Make Geothermal Energy More Broadly Available

Company boosts productivity and prevents costly errors by centralizing its product record and providing Arena PLM access across its extended enterprise

Situation

Outsourcing in the manufacturing sector provides companies many advantages when done correctly. Companies can leverage significant domain expertise, while achieving substantial savings by outsourcing. This way, companies can stay focused on core strengths, outsource the rest to specialists, and speed products to market.

Especially in the case of emerging companies, the intimacy and the reliability of outsourcing relationships are of vital importance, as these organizations become interdependent and help drive and support each other's success. In a healthy, strategic relationship, there is a high level of mutual respect and mutual responsibility.

This is true in the case of the relationship between Free Source Energies LLC and its clients, who collaborate to make renewable energy technologies and application methods broadly available. Together these companies deliver direct exchange geothermal units for homes, businesses, schools and other structures. These geothermal ground source heat pumps use geothermal energy, an effective renewable energy source and an alternative to increasingly scarce fossil fuels, and reduce energy costs for those who use them.

"We pull together with our customers to make a big impact in the world. We all bring a lot of expertise to the table," said Laura Matykiewicz who wears many hats at Free Source Energies LLC. "Our main competition is the existing furnace market. So, beyond delighting our customers, we must also educate the public on geothermal energy uses. Therefore, our collaboration and partnerships—with our vendors, dealer-installers, with allies in other parts of the nation and the globe, and with the users of our technology—are critical."

The Challenge

A growing company, Free Source Energies has a tall order to fill and needed the right tools to streamline business processes and make the most of the company's efforts. With a lot to accomplish, the company was quick to realize that using Microsoft® Excel spreadsheets for change management and QuickBooks for inventory was not going to appropriately support its growth in the long run.

"I knew there was a better way to handle our documentation and keep track of changes and inventory, especially when it came to tracking the components and parts we considered, which ones we used and why we made changes," said Matykiewicz. "Arena PLM is helping us establish processes, so that as we grow—no matter how fast we grow—we'll have all of our data in order. We can be confident that when it comes to tracking all of the data involved with product development, we've got a system that will scale as we scale and actually *help* us grow, not hold us back."

Free Source Energies needed a way to boost productivity and eliminate bottlenecks by giving everyone on the team the ability to look up what they needed, anytime, from anywhere.

“We wanted to avoid having to wade through a long paper trail every time we needed to find the most current version of a product. We’re a start-up company with limited staffing resources, and we’re all very busy,” said Matykiewicz. “Accessibility is also important. When I’m gone, no one else can reliably go find what they need on my computer. We need a system that gives access as needed—to engineering and manufacturing and others—regardless of who is absent on any given day.”

Arena PLM Delivers

Free Source Energies needed a product lifecycle management (PLM) solution that would let it replace its disparate applications with a single version of the product record that’s centralized across the extended enterprise—connecting everyone at the company to customers and other vendors working with them to meet their goals.

“PLM offers us a huge productivity boost. So, when somebody says, ‘Hey, we need two-ton and four-ton compressors,’ for example, I don’t have to ask them for their numbers. I can pull them up easily and in no time deliver what they need and move onto something else that is more pressing,” said Matykiewicz.

Ultimately, what convinced Free Source Energies that Arena PLM was the right choice over other PLM offerings was its ease of use, total cost of ownership and the advantages that come with its on-demand delivery model.

“Let’s face it, price matters, and even more so when you’re a start-up. To begin using Arena PLM, we didn’t need to invest in any big IT support or servers. We pay as we go, and automatic upgrades are included in the price. It doesn’t get more affordable—or valuable—than that,” said Matykiewicz. “The fact that Arena PLM is Internet-based is very significant because we can access it from other places and include everyone in the process—and again, it means we can keep our IT and hardware costs low.”

While Free Source Energies started with the impression that PLM implementations were supposed to be daunting, the company was pleasantly surprised by the smooth, easy implementation of Arena PLM.

“When we first started looking at Arena PLM and decided I was the one to implement the software, the thought overwhelmed me—I had heard a lot about how hard PLM implementations could be. But once I went to the training and worked with the people at Arena Solutions—who were all very interested in making everything work smoothly for us—it turned out to be simpler than I thought. There was some work involved, but the overall implementation itself took far less time than we had expected,” said Matykiewicz. “While Arena PLM is very self-explanatory, it’s also nice to know whenever I have a question, all I have to do is pick up the phone and the pros at Arena will be there help me.”

Strategic Benefits

"I believe using Arena PLM will definitely put us ahead of where we would be without it. The help it will provide us in introducing new products will be notable," said Matykiewicz.

Facilitating Collaboration

Having accurate information at the company's fingertips the instant it's needed was one of Free Source Energies' key business requirements for a PLM system. Arena PLM enables the company to track, document, and report on important details, including design intentions, considerations, test results, decision rationale, and compliance requirements. The software gives the entire team greater visibility into the product development-through-manufacturing process and enables them to better anticipate events and react appropriately. As the product definition evolves, PLM maintains the relationship between all the changing pieces as they move through multiple revisions. Arena PLM eliminates information lags so everyone is synchronized on the current version of the product record throughout the process.

Free Source Energies has the benefit of starting with Arena PLM early, when company processes can still be shaped to conform with best practices in the industry. By standardizing around Arena PLM from the beginning, Free Source Energies will be able to avoid manual, time-consuming and error-prone processes and make sure efforts are aligned within the company and with customers and select vendors. With a new framework enabling them to communicate and coordinate efforts, the rewards of working in this distributed way easily outweigh any potential risks.

"Using Arena PLM to easily share information—despite the distance between us—in a format that is accessible by all is a great advantage for us. We don't have to worry about whether one person's computer software is compatible—it's Internet-based and everyone can get to it. As we develop new products it can get complicated to explain by phone. Having the information in Arena PLM will certainly help us communicate better—everyone on the team can look at the documents themselves. That makes a huge difference," said Matykiewicz.

Streamlining the Product Change Process

Outdated information can produce a barrage of problems that decrease productivity, lengthen product introductions and design-through-manufacturing cycles, and can directly hit the bottom line. When designs need to change, Arena PLM efficiently manages review and approvals across the extended product team.

"Without Arena PLM, when we need to notify the team of a change, we talk about it over the phone or in an e-mail, but no one can see the change unless we send out documents or letters. Putting changes into Arena PLM will help everything go better, streamlining the whole process and giving us a much better historical record. For example, when we look back, we'll be able to know why we changed a part, whether it was discontinued or not. We'll also know that all changes have been made and that everyone has access to the latest version," said Matykiewicz. "When it comes to new developments and improvements to the product, that's significant."

Ensuring Compliance

Free Source Energies must comply with various industry and safety standards and environmental regulations. Arena PLM enables the company to maintain proper documentation, track compliance status, and deliver evidence.

“We’re in the process of moving into Canada and Europe with our heat pumps and need to be able to pass associated regulations. Having all of the relevant documentation in Arena PLM will make it much easier to know what needs to be done,” said Matykiewicz.

Return on Investment

Free Source Energies is at the onset of its Arena PLM adoption and has high expectations for the return on its Arena PLM investment:

Fewer process-related errors and faster time to market. Reducing reliance upon manual processes like spreadsheets, emails, and phone calls to share information internally and externally will virtually eliminate the costly human errors that can add up to \$50,000 or more for a single instance of using incorrect information. This same automation can also help Free Source Energies speed time to market by up to 10 percent.

Reduction in engineering change cycle-time. With automated routings and status notifications and the ability to have one change affect all relevant parts and assemblies, Free Source Energies expects to reduce engineering change order (ECO) implementation cycles by 70%.

Total cost of ownership (TCO) vs. traditional PLM software. Because Arena PLM is delivered on-demand, Free Source Energies did not need to add any additional IT infrastructure to support its PLM initiative. Over a five year period the TCO of Arena is 30% that of traditional PLM software.

Reduced cost of compliance. Arena PLM’s compliance module allows Free Source Energies to pull together a compliance report with one click, reducing compliance reporting time by 92%.