



## Petra Solar Takes a Smart Approach to Product Development with PLM

### Customer

Petra Solar is a clean technology company, focused on providing reliable, cost effective Smart Energy solutions to the electric supply industry. Founded in 2006, Petra Solar is the pioneer of SunWave™, a new Smart Solar technology that combines distributed solar energy generation with Smart Grid communications and improved grid reliability features to create a comprehensive utility grade solution. Petra Solar is the only cleantech company that provides utility-grade, grid-tied, distributed smart solar systems that can be installed on utility and streetlight poles, rooftops, and other existing structures.

### Challenge

As a new company in a high-growth industry, Petra Solar needed to implement systems and processes to manage their large volume of engineering data. Growing from about sixty employees to over one hundred and fifty in a year (a vast majority in engineering), Petra Solar found that their current environment for managing engineering activity needed to be more efficient and streamlined. The company's processes were manual and all product related data was stored on secured drives. "Without having an automated system in place for product development, you end up duplicating efforts and have a greater chance for errors to occur," said Stephen Gillespie, Program Manager for Petra Solar. "Our engineering change process consisted of several manual steps which cost the company both time and money."

### Goals

Petra Solar wanted to become more mechanized with automated processes around document control, engineering changes, and Bill of Material (BOM) management. They also wanted to improve their processes related to meeting compliance in order to ensure the use of compliant parts early in the design cycle. With previous experience using Product Lifecycle Management (PLM), Petra Solar knew there was a need for a PLM system to be able to manage their complex engineering activity.

### Quick Facts:

#### Company

- Petra Solar

#### Industry

- Clean Technology

#### Company Size

- Small to Medium

#### Key Benefits

- Estimated 74% reduction in ECO cycle time
- Able to increase product volume
- Affordable, scalable, easy to use PLM system for SMB
- Eliminate replication of error-prone data
- More easily meet utility compliance requirements



**Utility Grade SunWave™ UP Series. The first smart grid interactive solar system specifically designed for installation on utility distribution poles**

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# CUSTOMER SUCCESS

The company was looking for an affordable solution that could fulfill their requirements for automating processes within development (specifically part creation and engineering change management), had flexible licensing options that allowed for scalability for a growing company, and had an easy to use interface so that employees could get up and running quickly.

## Omnify Software Solution

Petra Solar implemented the Omnify Empower PLM solution to address their product development needs. Empower PLM is now the primary tool used to develop and solidify all design changes and track a product's lifecycle. With Empower PLM in place, Petra Solar has replaced manual processes with a more disciplined and automated approach for part number creation, part development, BOM management, Engineering Change Orders (ECOs), and document control.

"We chose Omnify Software for its value in terms of quality, capabilities, ease of use and scalable licensing model," said Mr. Gillespie. "The user interface is nice and easy for our staff to understand and it is very user friendly, making for a smooth adoption. Also, as Petra Solar continues to grow as a company, the scalability of Empower PLM will support any expansion in the future."

Integration between Empower PLM and Petra Solar's ERP environment allows data to be shared between the two systems via an automated process. All released changes are uploaded from Empower PLM to a third party API into the ERP system. "The integration between Empower PLM and our ERP system has saved us a tremendous amount of time, helped to eliminate multiple process steps," stated Mr. Gillespie. "A two hour ECO now gets done in a matter of minutes and we know the data is up to date and accurate."

### *Supporting Compliance in a Heavily Regulated Industry*

Utility is a heavily regulated industry and therefore Petra Solar is required to meet many compliance standards including UL, CE, and CSA. Omnify Empower PLM offers the ability to track and search for information required to achieve compliance. The system provides traceability of where to find designs and documentation that need to be shared among the engineering group, with secure check-in and check-out. Petra Solar also assigns attributes to their parts to determine UL/CE compliance which allows engineers to select compliant parts early on and assure that they won't be designing with non-compliant parts.

## Customer Success/ROI

### *Projected 74% Savings in ECO Cycle Time*

Automating items such as revision control, document vaulting, BOM management, and ECOs has helped to make Petra Solar's product development highly efficient. Within two months of implementing Omnify Software the company has been able to increase product volume and realize significant time savings. "It took a lot of effort to support manual processes and automating them with Omnify alleviates this by making sure accurate product information is available to the right people at the right time and in real time," said Mr. Gillespie. "Empower PLM has helped to shorten development time and process throughput, and based on our current findings, there will be about a 74% savings in the time it takes to route an ECO," added Gillespie.

Taking a 'smart' approach to product design and development processes positions Petra Solar for continued success in the development of cutting edge smart solar technologies.