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**Illuminating the Value of ERP  
Assessments for Solar Companies**

Whitepaper



# Illuminating the Value of ERP Assessments for Solar Companies

As technological advancements for clean energy drive down costs, the solar industry continues to experience significant growth in the United States, with 250,000 jobs added, a 50% average annual growth rate and 42% annualized growth rate over the past ten years. The solar industry now ranks as one of the top two sources of new electricity generating capacity in the U.S., contributing ~50% of all new electricity added to the grid in 2022, 10.6 gigawatts (GW) of solar capacity added in 2021, and 10,000 solar installers and equipment manufacturers now situated in all states nationwide. Yet continuously changing technology and widening influence of governmental regulations is presenting unique challenges for solar suppliers and distributors as demand for reliable solar continues to grow. The outcome of this growth is an increase in growing pains for small startups, midsized firms, and multi-billion dollar solar companies that rely on QuickBooks, Excel spreadsheets, and disparate technology systems to function and deliver to their clients.

## Problem: Rapid growth leading to increasing inefficiencies and overhead

The unprecedented growth in the solar industry within the last decade is resulting in key players facing more prevalent and impactful operational inefficiencies as they try to keep up with demand and scale for the future, including:

- Financial reporting errors
- Low quality project management
- Information isolated in silos
- Incompatible/outdated software
- Inventory mismanagement
- Procurement issues
- Inefficient labor utilization
- Missed milestone payments
- Delayed and erroneous invoicing
- Inconsistent and late reconciliations
- Duplicative/redundant data entry errors
- Shifting tariff rules

Solar industry players across the value chain, from solar infrastructure manufacturers, solar installation services, and solar energy subscription providers, are being impacted by inefficiencies driven from this growth. To successfully plan, design, execute and deliver the solar products and services to their clients, solar companies require the right people and processes, enabled by the right IT systems and solutions. Examples of key elements solar players face in order to efficiently operate in the industry include:



### **Charts, permits, and contracts**

Solar companies have to juggle different architectural tools, CAD drawings, and other documentation. They need a place to store these files, link them to specific projects, and then access them as needed.

### **Project management and milestones**

Managing multiple project milestones across dozens of different active installations can be mind-bending for a company that doesn't have a unified enterprise system in place. Varying states and/or municipalities, revenue recognition methods, and project-specific milestones all contribute to the complexity of solar project management. A company that uses one piece of disparate software for project management and another for job costing, for example, will need to cobble together information from both systems manually. This inefficiency creates a bottleneck that stifles the development of current projects and the company's ability to manage more concurrent projects in the future. Furthermore, it will be challenging to gain real-time insight into active projects without having to commit significant man hours across multiple business units.

### **Subscriber management**

Subscriber management is another difficulty at scale for companies without a central, enterprise system. Different contracts, start/end dates, and rates make keeping track of subscribers challenging. Additionally, differing rules and regulations by state further add to the complexity of subscriber data. Even with an external CRM system, the lack of integration with information inside the business reduces the usefulness of the tool.

### **Sales commission management**

Solar installers pay out commissions based on how long it takes to complete a project (60 or 90 days, for example), the number of kilowatts that they're installing (i.e., how much energy can be stored by the solar panels), or a combination of the two.

### **Financial reporting**

From vendor invoicing to audits, the financial reporting activities of any solar business are complex. This complexity can turn into convoluted information if it is not accessible, accurate, or augmentable. Inherent to the solar industry, financial reporting requirements are continuously evolving to meet new standards, and without a flexible accounting platform that communicates with other business units, adapting to these changes is a daunting task. Additionally, financial reporting is used to present information to multiple kinds of audiences, internally and externally. Whether it be an auditor or PE fund, being able to easily alter reports to meet the needs of your audience saves time.

To effectively manage these and other key elements, as well as understand and mitigate increases in soft costs, companies must rely on:

- Consistent and accessible systems and information across functions
- Availability of real time data with one source of truth
- Visibility into reporting and analytics using a cohesive data set



Enterprise resource planning, or ERP, systems are business software (either on prem, cloud or hybrid) that collect information from various business departments into one database to be used across the organization for detailed analytics and reporting across major functions such as:

- Finance
- Manufacturing
- Inventory
- Order Management
- Customer Service
- Sales and Marketing
- Project Management
- Human Resources



Implementing and effectively utilizing the right ERP for your business is paramount to operating in this high growth environment and positioning yourself for future success.

## How an ERP Assessment can help

Whether implementing an ERP for the first time or evaluating a migration of your existing ERP to another solution, an ERP assessment tailored to your solar industry business requirements is critical to determine the feasibility and organizational readiness for an ERP tool, identify potential solutions and vendors, and estimate overall implementation and support costs.

### A comprehensive ERP Assessment will help determine:

- ERP implementation readiness
- Data and business processes changes needed to enhance implementation efficiency
- Optimal ERP solution and vendor, based on ability to meet business requirements
- Level of customization required for Out-of-the-Box (OOTB) ERP solutions
- Tools and processes needed for successful implementation
- Interdependencies and integration points to consider with existing company goals and objectives
- Complete and clear roadmap and timeline
- Overall business case (including license costs, FTE requirements, customization, ongoing vendor support costs, etc.)



Our four step ERP Assessment methodology is a holistic and thorough approach to finding the most optimal ERP solution for your business. We start from scratch, conducting a business process assessment that includes an organizational assessment to help us get a better understanding of your internal structure and how your different business units interact with each other. This first step sets us apart from other ERP consultants because we focus on the people side of things first. By diving deeper into how your business functions as whole from the beginning, we can anticipate any challenges we might face and factor in that information when recommending a vendor. The next step is the technology assessment where we analyze your current technology's capabilities and limitations. From there, we take those two assessment results to develop a scorecard that we use to assess each vendor against the business requirements previously found in our initial assessment. We then develop a recommendation and move on to the last step, which is forming an implementation plan that is an aggregation of the technical, cost, schedule and risk information.

## The Sunipro Difference

Sunipro is a management consulting firm that has experience working with Fortune 500 companies across various sectors, including energy. Our 3 core services include M&A integration, digital transformation, and strategy. Our ERP assessment program falls under our digital transformation arm, along with our other services, like cloud security and data analytics.

Over the past few years, Sunipro has worked with several fast-growing companies in the solar industry. Those companies typically fall into one of two categories: Growing companies that want to gain better control over their projects, job costing, and field services; and larger corporations that want to graduate to using a world-class ERP tailored for the solar industry.

The following is a business case from a recent ERP Assessment project. The client was a mid-size solar farm developer facing operational challenges like duplicate data entry, redundant reporting, and a lack of streamlined processes. They identified their need to simplify their internal processes in order to scale and reached out to Sunipro for assistance. Following our methodology, we conducted Business and Technology assessments across 10 verticals to find areas of inefficiencies and narrowed down our search to 3 ERP vendors that met their needs in different capacities. We evaluated the vendors using our scorecards and executed the appropriate org, risk, and cost assessments. In the end, we delivered value by proposing the most optimal ERP platform and applications based on business requirements, performed cost assessments for each solution and customizations, and identified areas of opportunity to streamline business processes.