

# BUILDING A GLOBAL PRESENCE FOR GROWING EPC COMPANIES

How comprehensive industry relationships give rise to powerful global market advantages

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## Introduction

In today's rapidly shifting energy and natural resource industry, every decision is global. New resources are discovered and developed, old ones are optimized, and the fruits of the industry's labor are distributed around the world with breathtaking speed and efficiency. Power generating portfolios, meanwhile, are likewise evolving rapidly, as new strategic balances are reached among fossil, nuclear, and renewable energy sources.

As the winds of change continue to reshape the critical industry, every related business on the planet is racing to keep up.

This leaves many engineering, procurement and construction (EPC) companies in difficult positions. Many, if not most, new plants are now being developed overseas, requiring a reach that is not only global but also multidisciplinary and highly cost-effective. As a result, the larger EPC players are now busy expanding via merger and acquisition, driving down their own costs substantially, and forcing the smaller firms to the sidelines.

This leaves smaller EPC firms increasingly searching for a means to:

- Cut the costs of their project bids without sacrificing quality or customer service
- Reduce the risks and complexity of their global supply chains
- Grow their project pipelines, by increasing competitiveness for new global projects
- Increase profit margins and grow their own businesses

Cyient believes strongly in the importance of competitive innovation. Smaller firms still have powerful advantages in the marketplace, such as operational flexibility, the ability to offer more

personal attention to customers, and greater service consistency. By partnering with a single-source engineering provider, your business can extend its competitive reach globally, securing more overseas bids with the same low-cost and risk management strengths that the largest EPC firms bring to the bargaining table.

## The Tough Challenges of Global Plant Development

The very nature of building plants overseas today is forcing the entire EPC industry into a highly cost-focused competitive posture. And that places smaller firms — companies that otherwise would be able to capitalize on strong capability and technology strengths — at a compromising disadvantage.

Particularly in the worlds of the energy and natural resource industry, modern EPC projects are enormously complex. They require an extensive base of engineering disciplines, experienced staff, industry and supply chain relationships, regional legal expertise, and often substantial resources in emerging economies to compete successfully. While this competitive complexity manifests in the bid process in the form of strong cost demands, when you look under the hood of the average overseas plant project, you see a wide range of potential problems and challenges. A few of them include:

**Highly Diverse Regulatory Risks.** Every nation and every region has its own local regulatory concerns and requirements, as well as legal obstacles that are often influenced by evolving political dynamics. For an EPC aspiring to have global reach, this demands more than the ability to deploy the right people to the right places. It requires an extensive base of regulatory knowledge that spans the globe, as well as the ability to successfully navigate each legal whirlpool.

**Fluctuating Commodity Prices.** One major obstacle to keeping a large, complicated plant project on time and on budget is the availability and changing costs of the commodities required to build. The largest EPC firms are able to compensate for market fluctuations through a combination of established supply chain relationships, bulk negotiations, and sophisticated market predictive methodologies. Unfortunately, these are advantages that smaller EPCs are likely to lack, leaving their project bids much more open to uncertainty in terms of supply costs and resource availability.

**Knowledge Continuity.** Many of the most experienced engineers in small-to-midsized EPC firms today are either nearing retirement or have already retired. While larger companies have the resources in place to ensure that critical experience is retained and passed to new generations of engineers, smaller organizations are often forced to rely on improvised or even nonexistent methods and systems. As new global plant projects demand the most up-to-date expertise and experience to compete successfully, any gap in knowledge continuity represents a major competitive challenge for EPC firms.

**Limited Resources in Emerging Economies.** While many new plant projects are being built in the developing world, even those taking place in the Western nations leverage the strengths of educated, experienced teams in emerging economies. Having engineering resources in place around the world also means enjoying the power to keep a project going around the clock, taking advantage of time zone differences to expedite every aspect of an EPC project. For firms lacking strong on-the-ground resources in India and other competitive-cost economic regions, the possibility of successful bids for many of the most lucrative new plant building projects is eliminated.

These challenges, as well as many others, combine to create a daunting uphill climb for

a smaller, growing EPC firm that must better engage global markets to stay financially successful. While all of these issues ultimately present as bottom-line project costs, the details are indeed much more complex — as complicated, in fact, as the building projects themselves.

There is another attractive option, however, available to EPC companies that are eager to compete with larger firms for highly complex projects in the global marketplace.

**Digital Transformation.** Large, complex capital projects exceed budget by 75% and schedule by nearly two years in many instances. As projects grow in size and complexity, the possibility for continued growth in cost and schedule overruns increases. This fact drives home the need to adopt digital technologies available in the market today in order to deliver projects with greater speed, reliability and transparency across the entire project life cycle. EPCs who do not aggressively adopt these digital technologies will become inherently less competitive and their very existence will be threatened.

## A Better Solution: Partnership With A Global Engineering Services Leader

A single-source engineering partner can support small to midsized EPC firms on the global stage, extending their market reach with an extensive set of engineering and logistical resources. This enables them to confidently and competitively bid for new plant projects with the assurance that they can perform operationally at a quality level on par with larger EPC companies. In short, a single-source engineering partner levels the playing field, by equipping small to midsized EPC firms with the same advantages normally available only to the large corporate conglomerates.

When considering a partnership, the engineering firm should offer EPC-related services and



solutions that support the most critical stages of plant design and operation, including:

**Engineering Design.** The engineering aspect of an EPC contract relies on the ability to integrate a wide range of sub-disciplines, as well as a thorough understanding of local codes and standards. The engineering partner should be able to provide these strengths within a single organization, with a single point of contact, and on a turnkey basis. From initial performance modeling and base design development, to the integration of secondary and control systems, your partner would transform a new design concept into high-level and/or detailed plant layouts, models, and drawings.

**Procurement.** Critical to the success of any building project is the ability to source and deliver supplies quickly and cost-effectively. Your partner would provide access to a proven supply chain of reliable industry vendors, enabling your EPC firm to obtain the complex component resources it needs at low negotiated price points and with high-quality fabrication oversight. A partner with a global

delivery system likewise means that not only will your team source the parts it needs, but that your resources will be available onsite when you are ready for them.

**Operational Documentation and Training.** Offering a wide range of operational training and documentation services, aimed at ensuring high-reliability plant performance according to established industry best practices, is a critical proposition for your engineering partner. These services include (but are not limited to) the documentation of operational procedures, development of training manuals and videos, and full capture and analysis of live operational data for plant optimization.

In addition to system documentation and training materials, your partner would also develop complete and detailed plans for expected downtime management, planned maintenance outages, and expected future facility upgrades. Once again, a single-source engineering partner needs to establish procurement supply chains and a network of in-house engineering assets to enable them to



perform these tasks extremely efficiently and at very competitive costs.

**Project Management.** While most prime EPC contractors provide their own project and construction management services, your partner should be able to offer a full complement of project management support services, technology, and resources for any scale of EPC firm or plant project. These services include the integration of engineering design activities with the overall capital project and project controls.

A solid engineering partner should offer the tools and resources to support any or all of these activities as you require — a little, a lot, or anywhere in between — while ultimately leaving you in full control of your project. Be cautious with engineering vendors that lack the flexibility to provide anything less than full life-cycle management.

**Digitization.** From design and construction to operation, maintenance and optimization, digitization enables a seamless integrated process throughout the project life cycle.

Whether your partner helps you adopt digital capabilities through a phased approach or a complete overhaul, incorporating Building Information Modeling (BIM) is an imperative first step. A next-level relative of computer-aided design, BIM is capable of three dimensional modeling for critical building systems, from heating and air conditioning to lighting and plumbing. Complementary virtual and augmented reality technologies, and drones are also key players in a complete digital transformation.

Ensure you collaborate with a single-source engineering solution provider with the digital know-how, experience and foresight to transform your operational capabilities while helping you respond to evolving industry demands. A strong partner is able to help drive new innovation in today's digital world while providing greater speed, reliability, efficiency and transparency, and helping you to narrow the competitive gap.

## Benefits

Joining forces with a single, diversified, global engineering partner can deliver one of the most powerful market advantages available to a growing EPC firm. A relationship like this can help EPC firms to:

- Optimize go-to-market pricing, by leveraging procurement bargaining power normally available only to the largest firms, thereby resulting in competitive and successful project bids
- Increase your capacity to execute complex projects on a global scale, effectively widening your project pipeline, and increasing the market sustainability of your business, even in volatile economic conditions
- Reduce the risks, costs, and complexity of your supply chain, by relying on the extensive resources of a dedicated single-source provider of integrated plant engineering solutions
- Increase profit margin on even your most complex projects

## Conclusion

Taken together, this service framework delivers the tools that EPC firms of any size need to compete confidently and effectively for global plant projects, as well as execute them safely, on time, and on budget. For EPC companies searching for ways to maintain their profitability on large projects against their global competitors, the value of a trusted engineering partner is clear.

To find out more information, about partnering with a single-source provider, through an onsite discussion or pilot, contact Jeff Peterson at [jeff.peterson@cyient.com](mailto:jeff.peterson@cyient.com).

## About Cyient

Cyient (Estd: 1991, NSE: CYIENT) provides engineering, manufacturing, geospatial, network and operations management services to global industry leaders. We leverage the power of digital technology and advanced analytics capabilities, along with domain knowledge and technical expertise, to solve complex business problems. As a Design, Build and Maintain partner, we take solution ownership across the value chain to help our clients focus on their core, innovate, and stay ahead of the curve.

Relationships lie at the heart of how we work. With nearly 14,000 employees in 21 countries, we partner with clients to operate as part of their extended team, in ways that best suit their organization's culture and requirements. Our industry focus spans aerospace and defense, medical, telecommunications, rail transportation, semiconductor, utilities, industrial, energy and natural resources.

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