

## **IMPORTANCE OF AN INTEGRATED OWNER TEAM IN MEGAPROJECTS**

The size and competency of owner teams integrated into the project are of major importance to the success of any megaproject. Often, particularly when a design/build project delivery method is selected, the owner's position is to depend on the contractor for the execution of the project. Consequently, the owner is not guiding and overseeing the contractor and cannot participate in resolving problems or managing interfaces. Intimate involvement in the execution of the project is lost.

Functions of the core owner team for megaprojects as recommended by the founder of Independent Project Analysis, Inc. (IPA)<sup>1</sup> is shown in the following table. Typically, for an LNG facility the owner core team should be at least 20 people. More will be required if there are other subprojects such as utilities or infrastructure such as an upstream gas supply pipeline or a loading dock. All the positions in the table are important but among the most critical are those from process technology, operations and maintenance, disciplines for which early involvement along with experienced construction input is necessary to ensure proper operation and minimize later changes to the design. These people inject the requirements of the owner. Their philosophies and requirements must be defined from the project's outset and their input is best provided very early in the project definition phase.

In addition, alignment of both owner and contractor leadership teams must be achieved early in the project execution phase with members of both teams clearly understanding project objectives, discipline milestones, and drivers and success criteria for each party. Mutual needs and expectations need to be articulated and quantified. Our experience on megaprojects confirms that lack of alignment leads to working at cross purposes. Successful projects have complete alignment at both leadership and supervisory levels, and joint owner/contractor ownership of successes and shortfalls. Recognition of aggressive but achievable milestone achievement is by far the biggest motivator for team members.

Cost estimating, scheduling/planning, and controls capabilities on the owner team during execution are of major importance to megaproject execution. When these functions are executed solely by the contractor, they are often subject to conflicts of interest in progress reporting. Owner personnel must be integrated with contractor personnel to be fully aware of progress and be able to recognize inconsistencies and anticipate issues before they arise.

Project Controls has 3 primary functions representing the Owner: 1) ensuring the reasonableness of total installed costs and schedule milestone completion forecasts provided by contractors and suppliers are sufficient for accurate project status reporting, 2) verifying, logging and tracking invoices for payments, and 3) providing support, recommendations, and visibility to progress and performance for the Owner's management to help the project team complete within or under budget and on time or ahead of schedule.

Due to the growing number of megaprojects and the downsizing of owner engineering organizations in recent years, many owners are unable to properly staff major projects. Hiring people specifically for a

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<sup>1</sup> Merrow, Edward. W., *Industrial Megaprojects, Concepts, Strategies, and practices for Success*, 2011, John Wiley & Sons, Inc., Hoboken, New Jersey.

project is rarely successful. These new hires will be people who usually have not worked together previously and are not familiar with company practices. If the owner is filling holes in his staff, independent consultants with specific expertise can be contracted.

One industry society describes typical private owners and some smaller public owners to have less complex management structures typically consisting of the users and tenants, a construction manager, and any engineers or technicians kept on staff.<sup>2</sup> A common practice when the owner is lacking in project personnel is to engage an owner’s engineer or a project management contractor (PMC) for project oversight and contractor liaison. For a megaproject this would typically be a project team from a company with project execution experience and expertise.

**MEMBERS OF THE CORE OWNER TEAM\***

\*From INDUSTRIAL MEGAPROJECTS by Edward W. Merrow

**BUSINESS**

Project Business Sponsor(s)  
Lead Project Financial Modeler

**PROJECT MANAGEMENT**

Project Director  
Project Managers  
Interface Management  
Coordinator(s)

**PROFESSIONAL SERVICES**

Legal  
Human Resources

**ENGINEERING/PROCESS**

Engineering Manager(s)  
Discipline Lead Engineers  
Process Leads

**PROJECT CONTROLS**

Project Controls Manager  
Lead Cost Engineer  
Lead Scheduler/Planner  
QA/QC Manager

**CONSTRUCTION**

Construction Managers  
Labor Relations Specialists

**CONTRACTS**

Contracts Manager

**ENVIRONMENTAL,  
HEALTH, & SAFETY**

Environmental Lead  
Permitting Lead  
Safety Specialist  
Health Specialist  
Site Security Advisor

**PROCUREMENT**

Procurement Coordinator(s)  
Supply Chain Manager(s)  
Materials Supervisors

**FINANCE**

Economics and Investment  
Reps  
Financial Advisors

**LOCAL GOV'T/AUTHORITIES**

Government/Authorities  
Relations Manager  
Government Liaison  
Customs Specialist

**OPERATIONS/MAINTENANCE**

Production/Operations  
Manager  
Operations Coordinators  
Maintenance Representative

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For questions or additional information on this topic email Kenneth Bush, Director, Lumen PMC at kbush@lumenpmc.com.

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<sup>2</sup> ASCE Press, *Preparing for Design Build Projects, a Primer for Owners, Engineers, and Contractors*, 2006, American Society of Civil Engineers, 1801 Alexander Bell drive, Reston, Virginia, 20191.