

43RD ANNUAL ECC CONFERENCE

engineering and construction contracting association



JOURNEY INTO UNCHARTED TERRITORIES

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How are owners, contractors and suppliers adapting to successfully execute projects and reposition their businesses in the ever evolving project environment?



REPOSITIONING THE PROJECTS BUSINESS IN A WORLD WITH CHANGING BOUNDARIES



Adapting the Way we Contract and Manage Risk for Major Projects

Jim Shoriak

Trends in Contracting Approaches – tackling head on the contractual and legal issues



BP, Whiting Refinery Modernization Project (WRMP)

Project Director

JOURNEY INTO UNCHARTED TERRITORIES

Contracting Forum



Owners Perspective on Contracting Domestic Projects

- Projects have become larger and more complicated.
 - Take advantage of the Economy of Scale in the commodity markets.
 - Increased instrumentation due to Process Safety Management.
- Perception that only large EPC contractors can manage a Mega Project
- Owner Project management staffs have reduced their capabilities over during the 1980s and 1990s.
 - Attempting to rebuild staff for the control of projects.
 - Reliant on EPC Contractors.

Owners Perspective on Contracting Domestic Projects

- Mitigating Contracting Risk
 - Development of a detail Front End Engineering Design (FEED) (FEL3)
 - Should be reimbursable during scope development phase.
 - Specifications and standard drawings development.
 - Contracting development plan.
 - Contract scope of work to match the FEED
 - Estimates must match the construction execution plan.
 - Assign Risk to the entity best able to control the risk outcome.
 - The owner must be involved and drive the project outcome
 - Home office presence to provide quick responses to contractors.
 - Field involvement in remove site restrictions.
 - The owners personnel must understand and be trained in the contract.
 - Differing contracts dictate owner staffing requirements.

Owners Perspective on Contracting Domestic Projects

- Contract Types
 - Lump Sum EPC preferred by the owners
 - Clear and well defined scope
 - Clear and unrestricted worksite
 - A minimum of three interested bidders
 - Provides cost surety to the owner and reduces risk
 - Requires maximum upfront development
 - Reimbursable engineering and construction management with lump sum construction.
 - Local construction contractors are familiar with the conditions and are able to take on short term labor risk
 - Provides cost surety for the construction risk
 - The location and size of the project may restrict the use of this strategy.

Owners Perspective on Contracting Domestic Projects

- Contract Types
 - Reimbursable engineering and construction management and construction.
 - Requires the coordination of multiple contractors.
 - If managed correctly can reduce the lump premium included in a project.
 - Reimbursable engineering with a general contractor managing construction.
 - Construction is managed by a contractor with construction experience and expertise.
 - Total reimbursable contracting strategy
 - Most difficult to control and require a high level of owner involvement
 - Should utilize local subcontractors and not direct hire by the EPC.

Owners Perspective on Contracting Domestic Projects

- Mega Projects are different, but still require project discipline.
 - Contracts must build in the logistical constraints of the site and area.
 - Require a different level of joint planning between the owner, engineer and contractor to succeed.
 - Normally exceed the limits of the local labor pool to provide productive craft workforce.
 - Early up front involvement of the contractors in the planning efforts to verify estimating mythology and planning efforts, yields better results.

Owners Perspective on Contracting Domestic Projects Bonus Comments

- The owner needs to be directly involved in the establishment of the contracting strategy.
 - Can not be reliant on EPCs that have a financial benefit in a selected strategy.
- Local contractors usually perform better than national contractors.
 - Can not exceed the management span of the local contractor.
 - Include the contractor in the planning efforts.
- The use of Lump Sum construction is preferred.
 - Shifts productivity risk to the people in the best place to control the outcome.
 - Still requires up front owner involvement in the vetting of the contractor capabilities and planning efforts.