Contracting Insights:
Developing a Winning Contracting Strategy

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Contracting Insights: Developing a Winning Contracting Strategy

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Johnson & Johnson

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Principal Deputy Director
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Independent Project
Analysis

ECC
Panel Discussion Topics

What are some of the more recent benchmark results related to traditional contracting strategies?
Contracting Approach Options*

**EPC Options**

- EPC Lump Sum
- EPC Reimbursable*
- EPCm*

**Split Options**

- Reimbursable*/Lump Sum
  Re/LS
- Reimbursable*/Reimbursable
  Re/Re
- Lump Sum*/Lump Sum
  LS/LS

*Merrow and Walker, The Efficacy of Unusual Contracting Approaches for Major Projects, IBC 2019, IPA, March 2019
### Database Description*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Projects</td>
<td>1158</td>
</tr>
<tr>
<td>Mean Project Cost <em>(2021 US$)</em></td>
<td>$798 million &lt;br&gt; Median: $392 million &lt;br&gt; Range: $100 million to $32 billion</td>
</tr>
<tr>
<td>Mean Execution Duration</td>
<td>32 months &lt;br&gt; Range: Less than 13 to more than 70</td>
</tr>
<tr>
<td>Median Authorization Year</td>
<td>2007</td>
</tr>
</tbody>
</table>

**Industries**

- **Refining**: 40%
- **Chemicals**: 34%
- **Minerals**: 10%
- **Hydrocarbons Processing**: 7%
- **Pharmaceuticals**: 4%
- **Distribution**: 3%
- **Consumer Products**: 2%
- **Refining**: 40%

*Merrow and Walker, The Efficacy of Unusual Contracting Approaches for Major Projects, IBC 2019, IPA, March 2019*
IPA Past Research*: Cost Effectiveness of Traditional Forms

Split forms with Lump-sum construction are most cost effective

*Merrow and Walker, The Efficacy of Unusual Contracting Approaches for Major Projects, IBC 2019, IPA, March 2019
IPA Past Research*: Relative Execution Schedule Effectiveness of Traditional Forms

Why Does “Split Contracting” Work?*

• The split strategy promotes more complete engineering before field mobilization
  – There must be enough engineering completed to create the bid packages for both Re/LS and LS/LS contracting
  – There is no incentive on the part of the engineer to get in the field too quickly, because there is no profit in it

• Because late engineering is the largest single problem that we face, it is not surprising that the split strategy works

• The bigger the project, the bigger the benefit of using a “Split form” as the cost and schedule performance of the EPC forms degrades much faster
  – Contactor performance is harder to monitor in a large EPC project
  – Owner control declines significantly in a large EPC project

*Merrow and Walker, The Efficacy of Unusual Contracting Approaches for Major Projects, IBC 2019, IPA, March 2019
Panel Discussion Topics

What are some of the contracting strategies that are being utilized today to address a number of Owner constraints?
LyondellBasell Journey to Best in Class

<table>
<thead>
<tr>
<th>4Q 2018 Gap Assessment</th>
<th>Journey to Best In Class</th>
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</thead>
<tbody>
<tr>
<td>1 Organization / People / Culture</td>
<td>- 2019-2020 - Outcomes and actions</td>
</tr>
<tr>
<td>2 Functional Competencies</td>
<td>- 5-year journey to effect change</td>
</tr>
<tr>
<td>3 Execution</td>
<td>- Build on solid foundations</td>
</tr>
<tr>
<td>4 Assurance</td>
<td>- Organization redesigned</td>
</tr>
<tr>
<td>5 Governance</td>
<td>- Governance, gate assessment upgrade</td>
</tr>
<tr>
<td>6 Estimating</td>
<td>- Selected standard execution strategy — EPCm</td>
</tr>
<tr>
<td>7 Systems</td>
<td>- Contracted with alliance partners</td>
</tr>
<tr>
<td>8 Results of Gap Closure Plan</td>
<td>- 2021 and beyond</td>
</tr>
<tr>
<td></td>
<td>- Focus on development and implementation of global standard model</td>
</tr>
<tr>
<td></td>
<td>- EU re-organization to support CO2 work</td>
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</tbody>
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Contracting Insights: Developing a Winning Contracting Strategy
LyondellBasell Standard Delivery Model

- EP/Cm Reimbursable services provided with Alliance Partners utilizing consistent contracting framework

- Construction executed as Unit Rate or Lump Sum services via disciplined sub-contractors

- EPCm partners competitively selected for each project based on team, referent experience, and commercial value — not lowest cost

- Construction sub-contractors selected from a rigorously developed roster

- Playbook co-developed with EPCm partners outlining detailed activities by phase along with Division of Responsibilities (DOR)

- Incorporates supplier lead solutions in design, deliver methodologies, or differential technology offering
LyondellBasell Standard Delivery Model Value Proposition

- **Consistency**: Organization aligned around ONE execution model and contract framework

- **Risk mitigation and allocation**: Small and complete engineering packages reduces risk for both LYB and contractor

- **Supplier Relationship Evolution**: EPCm partnership matures over time delivering value

- **Execution Clarity**: Role/responsibility pre-defined eliminating alignment issues

- **Leverage market capability**: LYB is not changing contractor execution model

- **Ownership**: LYB retains accountability for the outcome of project results
Panel Discussion Topics

How are other industry sectors addressing similar Owner/Contractor relationship challenges?
J&J Project Portfolio & Delivery Organization

- Large and complex healthcare organization, E2E, 3 sectors (Pharma, Medical Devices & Consumer)
- Global, large and diverse Project Portfolio, complexity based (i.e., Alpha, Beta, Gamma)
- Safety is not negotiable, strong Construction Safety performance (1st quantile, IPA 2021)
- Standardized Project Delivery Process & Design Platforms, scalable to project complexity (IDEA)
- Diverse project portfolio and PM capabilities, simple office space fit-outs to large green field bio-pharma facilities
- Robust partners pre-qualification process and periodic “Top-to-Top” relationships
- Global/Regional alliance partners with pre-negotiated Master Service Agreements (i.e., fees, multipliers, etc.)
- Highly competitive market (Pharma), success depends on strong partnerships and resources assigned to the project (i.e., BC3.2)
- Cost is important, but most of R&D and SC projects are schedule driven, speed to market is key!
- Project complexity, business drivers, local capabilities and market conditions determine best contracting strategy
  - Design – Bid – Build (E + PC)
    - A&E, CM & C&Q firms (individual GMAX)
    - Procurement + CM Services
  - Design – Build (EPC, GMAX)
    - One A&E + CM firm or an alliance of them (single GMAX)
Questions / Open Discussion
THANK YOU

Thanks for Participating

Steve
Don
Felix
Jason