

Consideration of Local Content in Formulating Contracting Strategy

Hypothetical Contracting Strategy for an FPSO (Floating Production, Storage and Offloading) vessel and associated SURF infrastructure (Subsea Umbilicals Risers Flowlines)

1. FPSO destined for an off-shore field in an emerging economy.
2. The country has some existing capability in shipbuilding (relevant skills and shipyards), and its Government has ambitious plans to leverage off the energy exploration and development sector to develop the local ship-building industry so that it can eventually compete in regional markets.
3. Key driver of Contracting Strategy is (i) to maximise the volume of local content whilst (b) concurrently managing the cost, schedule and quality risks of so doing, and (c) aligning with Government ambitions for developing a competitive ship-building industry.
4. The product is a 'mixed' Contracting Procurement, combining elements of both vertical and horizontal contract bundling, as well as some selected unbundling.
5. SURF - The engineering design, procurement, fabrication, integration installation and commissioning of SURF infrastructure is under a single EPIC contract, tendered to experienced international contractors. **Bundling** the work in this way incentivises the winning contractor to use its influence over its suppliers of SURF equipment (including its sub-contracting and supplier procurement procedures) to encourage them to take a 'value chain' approach, ie setting up product finishing, maintenance and repair facilities in the host country. To achieve this outcome, the Procurement Strategy establishes the principle of giving additional weight in the EPIC tender evaluation to bidders able to leverage this type of inward investment.
6. FPSO - In contrast, the proposed procurement Strategy for FPSO construction is to partially **unbundle**. The FPSO topsides engineering, procurement and construction management services are separated from the sub-contracted fabrication work under an EPCm (engineering, procurement, construction-management) Lump Sum contract. The total work package is tendered to experienced international contractors, but with the pricing of the subcontract for local fabrication, integration and commissioning as an open-book build up to Lump Sum. This approach to pricing provides the client with evidence that the necessary risk mitigation is priced in (either directly within the Lump Sum or as an Option or Contingency/Provisional Sum), such as

additional in-the yard management supervision and quality control. The Procurement Strategy further requires that tendering for the EPCm contract should stipulate that the Tender must choose between a limited number of pre-market-tested, nominated, local fabrication sub-contractors.

7. FPSO - In addition, overall project management for the fabrication and integration work is retained by the client to further manage the schedule and quality risks involved in using less experienced local fabricators. With regard to the FPSO hull, design, procurement and fabrication is isolated from the topsides work, enabling experienced shipbuilders in the country to bid directly for the work. To manage the inherent risks in hull construction requires that an experienced engineering consultant firm be part of the bidding consortium. This firm will contribute the design drawings and provide contract performance oversight. As with the EPCm contract, the client also retains an overarching project management role.
8. A survey of the local fabrication and ship building yards suggested the need for prior capital investment in earth works, heavy equipment and experienced project managers. To incentivise these investments, the Procurement Strategy includes a stated presumption to place additional orders for FPSO construction in the same local yards, if contract performance targets on the first FPSO are met. This presumption is to be communicated to the tenderers along with the key performance indicators that will trigger the follow-on work: schedule delivery, labour productivity rates, quality of project management, HSSE performance and welding defects performance.