EPC or EPCM contracts?

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Although the engineering, procurement and construction (EPC) contract and the engineering, procurement and construction management (EPCM) contract have been present in the construction sector for many years, there remains confusion as to the fundamental differences between these contracts, the role each party is required to play, and when to use one contract over the other.

The fundamental difference is the role of the EPC or EPCM contractor. In an EPC contract, the EPC contractor develops the project from commencement to final completion. The owner or principal of the EPC project provides the EPC contractor with a detailed design including technical and functional specifications, in order for the EPC contractor to build and deliver the project to the "turn of the key", within a specified time period. This is why EPC contracts are often referred to as "turnkey" projects. The scope of work should be clearly defined in the contract documents; therefore, amendments to the scope of work should not be a common feature in EPC contracts. For this reason an EPC contract is often a fixed price contract or an all-encompassing lump sum contract. Any shortfall of costs is a risk that rests with the EPC contractor, making cost control their number one priority.

A further identifying feature of the EPC contract is that the EPC contractor enters into separate agreements with the contractors, vendors, sub-contractors, sub-vendors and so on. This is advantageous to the owner or principal of the project, as they will look to the EPC contractor to take full responsibility for the project and, in the event of a dispute between the EPC contractor and any party to the sub-agreements, to resolve the dispute without the owner or principal being required to be a party to the dispute. The EPC contractor will, in most cases, have a right of recourse against a party to a sub-agreement who was responsible for causing the loss or damage. The EPC contractor must ensure that its contracts mirror those that it has with the owner of principal.

In contrast to the EPC model, the EPCM contractor is not directly involved in the building and construction of the project, but is rather responsible for the detailed design and overall management of the project, on behalf of the owner or principal. While an EPC contract takes the form of a design and construction contract, the EPCM model can be regarded as a professional
The EPCM contractor has a duty to ensure that the engineering and design of the project is in compliance with the project's technical and functional specifications. Supervising, management and co-ordinating construction interface in accordance with a detailed schedule is the key responsibility of the EPCM contractor.

The EPCM contractor is responsible for establishing contractual arrangements on behalf of the owner or principal with other contractors, vendors, sub-contractors and sub-vendors, through a tender process. The EPCM contractor is contracted by the owner or principal for the construction management role, while the owner or principal is bound to various contractual relationships for construction-related works. From an owner or principal's perspective, there lies a disadvantage in being bound to various contractual relationships in the event of a dispute. Unlike the EPC model, the owner or principal will more often than not find itself involved in a dispute with one or more of the other parties relating to the construction of the project, to whom the EPCM contractor must offer assistance.

In most instances, the EPCM model is structured on the basis of a cost-reimbursable fee structure or a unit rate fee structure. The former allows the EPCM contractor to be paid an upfront sum of money with additional fixed monthly payments, while the latter allows for an upfront sum of money with further payments to be made on completion of specified phases within the construction process.

Both the EPC and EPCM contracts can be highly beneficial to a project. Choosing the incorrect form of contract can have a major effect on the cost and risk associated with the project. The contract you choose to utilise requires a clear understanding of the objectives, scope of work, the role of each party and the contract structure as a whole.