

One way, or another

Shearman & Sterling considers the implications of capital cost 'blow-outs' for the EPCM model

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Recent years have seen a number of mining projects exceed their original project cost budgets by significant margins, earning them the label of "overrun blow-outs". These have occurred with juniors developing their first properties and majors with large project portfolios and a history of successful mine development. Neither is immune.

Capital-cost overruns are not new to the mining industry. They have been a persistent fixture over the years, with overruns of 20% not uncommon. Anecdotal evidence, including headline 'blow-out' overruns, suggests the events are trending upward. One can speculate as to the reasons for this, perhaps the need to search in difficult, remote locations to find reserves, or to use complex technological processes to exploit those reserves.

Whatever the cause, this may be a period of heightened overrun risk – at least for mines with certain characteristics. With a number of projects reporting above average overruns, regardless of the developer, commodity or location, industry leaders are focused on determining the causes and better managing the risk.

Just as capital-cost overruns have been a feature of mine development for decades, so too has the engineering, procurement, and construction management (EPCM) model for construction contracts.

Other industries regularly use EPC construction contracting, shifting significant portions of risk, including cost overruns, onto contractors. Such risk allocation comes at a price, since the contractors charge a premium. The mining industry has chosen not to use the EPC or other risk-shifting contracting models, but almost exclusively to use the EPCM model.

Does the recent spate of "mega" overruns suggest the industry should re-examine the customary EPCM model? If so, is the fixed price EPC model a viable alternative, or not? Is there a 'third way'?

EPC versus EPCM

Broadly speaking, in EPCM contracts the contractor arranges and manages separate engineering and construction agreements for the owner. The contractor typically receives compensation on a cost-plus basis – the contracts that are managed being cost-plus or fixed-price (customarily the former). The owner bears most, if not all, the risk of inflated project costs.

EPC contracts involve the contractor itself performing defined engineering, procurement, and construction tasks, on a lump-sum or a cost-plus basis. The contracts typically distinguish between risks the contractor bears and risks the owner bears, this distinction being particularly important in the lump-sum context.

Generally, EPCM contracts work best if the level of potential risk is so high the EPC premium would be untenable, or where the owner and contractor believe a carefully managed process will lead to risk mitigation and contracting decisions based on better information. When the owner has a strong in-house construction team, the EPCM management process can be quite strong.

EPC contracts, especially lump-sum contracts, work best if the potential risks can be adequately identified at low or moderate levels so that contractors are able to give meaningful fixed-price bids at reasonable risk premiums.

One can argue – and traditionally has – the EPC model (particularly the lump-sum variety) does not fit the mining industry, where so much about the nature of the resource exploitation is unknown.

However, given that many large mining projects incorporate elements that are typically the subject of fixed-price EPC agreements when they are developed separately (such as power and transportation facilities), and that other aspects of mining projects are reasonably predictable, the continuing viability of this assumption can be questioned.

The third way

This last point suggests a modified approach for mining – at least if substantial "known" elements exist. This modified approach involves using fixed-price EPC agreements for portions of a project suitable to that approach – or, better still, a single master EPC agreement involving substantial fixed-price elements, with a cost-plus arrangement for the residual where unknown elements make fixed-price arrangements untenable.

The general desirability of having a contractor single point of responsibility could be trumped by the advantages of opening aspects of the project to competition among a broader range of potential contractors, thus reducing prices. For example, more contractors may be capable of executing transportation aspects of a project than the pure mining aspects.

Using fixed-price EPC contracts for defined parts of mining projects would benefit owners by reducing potential cost overruns, and facilitating financing. If lenders perceive overrun risk as mitigated, they may be more willing to lend, or to do so with a higher debt-equity ratio and at more favourable rates.

By modifying the customary EPCM contracting model in the mining industry, owners can buck the trend towards "blow out" overruns and enhance the attractiveness of their projects to lenders.

There is no single road to perfection; rather each project will offer a different option. Careful management of these options could provide considerable benefits to owners, lenders, and the mining industry more generally. ▼

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