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RISK-SHIFTING CONTRACTS HURT

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POWER

How can the power sector deliver one new powerplant per week for the next 20 years, when its major contractors are falling like flies? Consider the recent fates of former, once-reputable firms such as Stone & Webste, Morrison Knudsen and Raytheon Engineers & Constructors.

For industry survivors to meet the Bush administration's ambitious energy goals, powerplant contractors need a robust industry. They need collaborative agreements with project owners instead of today's adversarial, risk-shifting, lump-sum, engineer-procure-construct, EPC contracts. Fortunately, an excellent model of collaboration exists--outside the powerplant sector.

ALLIANCES. In the oil-and-gas sector, pre-merger British Petroleum Co. PLC turned around a bad situation. About 10 years ago, its dealings with contractors and suppliers suffered from name-calling, out-of-control schedules and bitter litigation to settle claims. Determined to build projects cooperatively, BP overhauled its contracting culture from top to bottom and introduced an innovative contracting method called project alliance contracting.

This alliance method combines an integrated management approach with open-book accounting in a "no-blame" environment. The method also offers financial incentives to share risks, and rewards for exceeding clearly defined target goals. For BP, the method works so well that construction of its North Sea "Andrew" oil field, completed in 1996, came in 22% under the target price and six months under schedule.

My opinion is that the EPC contract has outlived its usefulness. First used in the early 1980s as a lump-sum arrangement to help what was a fledgling private power sector at the time, the EPC method has become a liability, fomenting a "who's to blame" contracting culture. With an EPC contract, a contractor must carry all the financial and schedule risk for a project's completion. This burden has driven up costs to uncompetitive levels, and pushed too many contractors towards insolvency.

By comparison, the project alliance method shines. Alliance team participants share risks without hurtful confrontations. They define common business goals, set target costs and schedules, and create a total team rather than a "them and us" culture. They achieve savings from reductions in oversight management staff, completion risk contingencies

and legal costs. They reward innovation, and encourage proactive constructibility and maintainability reviews and life-cycle considerations.

Why, then, is the alliance method such a tough sell in the powerplant sector? Several project owners, lenders and EPC contractors with whom I have spoken have expressed reluctance to try the alliance method because it requires a wholesale change in how the industry currently defines a project relationship. For the alliance method to see the light of day will require a thorough analysis by lenders and owners before it can be offered to contractors for acceptance. But the extra effort of such an analysis may be well worth it.

Perhaps some examples will help the power sector see a better way to build powerplants less acrimoniously. Alliance contracting has been used successfully in the water, wastewater and transportation sectors as well as in the energy field. Examples include the current expansion of an oil-sands plant at Suncor Energy Inc.'s Project Millennium in Alberta, Canada. Scheduled for completion next year, the $1.9-billion project includes alliance members Suncor, Bantral Inc., Fluor Daniel Canada Inc., SNC-Lavalin Engineers & Constructors Inc. and a joint venture of Bechtel Canada Co. and Fluor Constructors Canada Ltd.

Such alliances really pay off when things go wrong. Despite an accident off the coast of Western Australia, the $255-million "Wandoo B" oil platform began operating in 1997 after taking just 26 months to complete rather than the typical three years by traditional contracting methods. The alliance's no-blame culture was tested when a seawall was breached.

NO BLAMING. At Wandoo B, water flooded the rig construction area to a depth of 21 ft. After two weeks of work to seal the breach and another four weeks to pump out the water, the actual delay to the project was one week for pouring the platform base concrete. Project participants recall with some surprise that there was absolutely no blame assigned--and no litigation over the accident. The team members included Ampolex Ltd. (now part of Mobil Exploration & Producing Australia Pty Ltd.), Ove Arup & Partners, Leighton Contractors Pty Ltd., pre-merger Brown and Root Inc., and Keppel fels Energy & Infrastructure Ltd.

When the power sector gets serious about the need to reform the EPC contract, it must not lose sight of the fact that contracts are essentially relationships on paper. If the relationship is not based on trust but based on conflicting goals and paranoia-induced legalities with penalties to boot, then inevitably we will paint ourselves back into the same adversarial corner. I believe that project alliance technique offers an industry-wide solution to correct the recurring problems spawned by the EPC practice of project delivery.

If you have an idea for a column, please contact Viewpoint editor David B. Rosenbaum at david_rosenbaum@mcgraw-hill.com

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