

EVERYONE'S A WINNER

Carl Rentschler, Engineering Consultant, and Goutam Shahani, ShureLine Construction, USA, look at supply agreements as the route to reaching a win-win for all parties organising procurement for downstream projects.

It is essential to carefully manage the cost of purchasing materials and equipment, as well as engineering services and construction. The obvious approach is to bid all inquiries, but this may not always be the best solution. Factors to consider include whether there will be repeat orders for the same or similar equipment/material, and whether there is an established relationship with a supplier. Also, thought should be given to whether the project entails significant proprietary technology that must be guarded. In this case, the fewer suppliers involved, the greater ease in which the technology can be kept confidential. Also, there may be a chance that a single vendor can help create performance improvements through ongoing component enhancements from project to project.

Supply agreements offer the opportunity to create partnerships with suppliers to increase overall project performance, but this must be done with eyes wide open. The obvious question that arises with supply agreements is how does a buyer know



Figure 1. Construction work at a speciality chemical company in New Jersey, US, in 2019.

whether they are getting a reasonable price over time as prices fluctuate. Supply agreements must be negotiated considering the review of pricing forecasts, and then as the agreement progresses, an eye must be kept on the market. A win-win can be achieved between the project owner and supplier through a properly executed supply agreement.

A successful supply agreement requires communication among parties and openness about changes and needs during the partnership. For example, if a supplier sees that costs, schedule or performance can be improved with a design change, these ideas should be noted to the buyer. Owners on the other hand should share if there is schedule relief or other allowances to reduce delivery pressure by the supplier. Together the buyer and supplier should look for ways to improve project performance, either through enhanced designs or more timely deliveries. Construction problems should be solved as a team, with both parties available to send people to the field on short notice to solve problems.

Major projects frequently encounter problems in material/equipment delivery and services supply, and these can have a dramatic impact on project execution. This situation can be improved with well-focused supply agreements creating a team for material/equipment or services supply. This team ensures timely delivery of material, and it is in place to solve emerging problems. In the end both parties benefit with a successful project added to their resumes. Together a win-win situation is achieved with a partnership having a common goal: the overall successful execution of a project.

Procurement options

There are numerous ways to procure material and services and each method has its positives and areas of concern. The most common method of procurement is to bid material or services with several bidders on a defined scope basis. The competition drives price competitiveness, and using qualified bidders ensures that material or services are provided by reputable bidders. The process can be time consuming as detailed bid documents must be developed including scope and execution parameters. If qualified bidders are not obvious, an effort must be made to ensure that financially sound and capable companies are bidding

the work. All of this takes time when a project schedule may already be tight.

An approach to expedite the procurement process is to establish a terms and conditions agreement with a supplier or multiple suppliers. This is a contract with a supplier for the purchase of defined material, equipment or services according to agreed-upon terms and conditions. Prices are negotiated with each order. This still requires the preparation of detailed scope documents, but time is saved with contract negotiations.

Using pricing lists is another method of performing procurement. Under this option, vendors provide lists of equipment, material or services containing fixed prices for a defined period of time. This provides a quick assessment of costs, but is limited to well-defined equipment, material and service scopes. Having unique scopes for procurement will require iterations with vendors to modify pricing lists. Under this procurement option, terms and conditions are negotiated or confirmed with each order.

Supply agreements provide the opportunity to reduce time constraints inherent with other procurement options, and also to ensure that specific scope definitions are easily addressed. A supply agreement is a contract with a supplier for the purchase of defined equipment, material or services at a fixed price and established terms and conditions, over a specific period of time. Vendors considered for supply agreements often have a long-term relationship with the buyer and therefore are well-acquainted with expectations. Generally, trust has developed so buyer and supplier are common stakeholders in projects and strive to resolve issues as a team. For supply agreements to be most effective between buyer and supplier, there must be openness between parties and a team effort. Both parties must share problems being faced and, on the other hand, there should be openness about upsides being experienced, either with schedule or cost. Technically both parties within a supply agreement should work together for innovative solutions and resolution of any problems. This type of procurement is discussed further in subsequent sections.

Evaluating procurement options on an ongoing basis

The process of determining the best procurement option should continuously be considered. This is particularly true for material/equipment and services purchased on an ongoing basis. Circumstances change with time and an approach viewed as acceptable for past orders may not be the best option today. It is wise to originate and maintain a strategy document outlining options, and considering the possibility of a supply agreement. Factors to be considered include upcoming projects, spend data with current vendors (not having supply agreements) and the ability to increase buying power. Regular meetings to discuss procurement strategies is an effective means to ensure there are ongoing discussions concerning buying options.

Circumstances driving supply agreements

In today's competitive, global marketplace, cost is a primary driver to get projects approved. Speed is equally important.

In order to get a credible capital cost estimate, detailed engineering has to be completed. This can be as much as 15% of the total installed cost. For a US\$200 million project, engineering can cost up to US\$30 million and take 12 months to complete. Corporations are not willing to spend this money upfront since it is not certain whether the project will eventually get funded. Hence, project capital cost has to be estimated in a timely manner without spending millions of dollars to get final funding approval. Without detailed engineering, estimates for equipment, materials, and construction have to be developed. It must also be noted that most major chemical companies have their own specifications and standards for equipment, valves, piping, materials of construction, and construction work processes. These standards and specifications ensure that the finished project complies with the corporation's safety and quality requirements for the entire project life cycle. In addition, sustainability, environmental performance and energy efficiency must be taken into account. Unless the project's requirements are clearly spelled out, different suppliers will provide estimates that cannot be directly compared to one another. A lot of time and energy has to be expended in putting various quotes on an 'apples-to-apples' basis. In addition, all the suppliers have to be qualified in terms of safety, quality, and insurance. Furthermore, references have to be checked. All of this takes a lot of time and money. At the end of the day, the lowest bid may not be the best bid when quality, safety and reputation are taken into account. Some suppliers will provide an aggressive number to secure business with the hope that scope changes after detailed engineering is complete will enable them to adjust the price upwards. Such an approach causes stress and consternation and may even jeopardise the viability of a project based on financial analysis.

To avoid these pitfalls, it is a good idea to consider supplier arrangements – either exclusive or non-exclusive. There is a certain comfort in dealing with known entities that understand the owner's requirements, culture and work process. Such relationships take a long time to develop and cultivate, but they can be useful to generate credible capital cost estimates in a timely manner without spending too much money.


Supply agreements: advantages and possible concerns

The advantages of having partnership supply agreements are fairly self-evident. When a supplier agreement is properly structured, it can save both time and money. One of the major benefits of supply agreements is the time saving associated with not having to quote every purchase. This includes not having to qualify vendors. There is greater comfort in the quality of the estimate. Furthermore, there is confidence that the partner will deliver the goods or services as proposed. Communication is simplified when there is a prior relationship and trust. In addition, people at the two companies are familiar with one another, which allows for speedy project execution. Having previously worked together allows some of the risk to be taken out of the picture. This results in a lower reserve in the capital cost estimate, which can make the project easier to fund.

One major concern with supply agreements is that sometimes the vendor can quietly increase the price, which may become higher than the prevailing market price for the material or service. Sometimes the buyer 'falls asleep' and eventually realises that they are paying too much. There have to be internal checks and balances to ensure that the price increases are kept within reason. For long-term sustainable success, the right partner must be carefully selected. The skillsets of the two companies should be complementary. The geographical location of the two companies including time zones should be considered as well as language and communication methods. Lastly, the partnership should be structured so that the goals of the two organisations are aligned and that both companies win by delivering a successful project.

Conclusions

Procurement of material/equipment and services for major projects remains a major activity influencing successful project execution. All procurement options should be considered to drive successful projects, but supply agreements in particular offer options to leverage factors influencing a positive outcome. A supply agreement procurement arrangement allows for a vendor to assist with project development, which is a crucial and costly part of the project. This procurement technique also eliminates the time consuming effort of qualifying vendors and going through a bid process. Finally, a long-term vendor-buyer relationship offers the possibility to improve the design and execution techniques from project to project.

Both vendor and buyer must enter into a supply agreement with eyes wide open and a willingness to work together for the good of the project. Problems on either side should be surfaced immediately and resolved through open discussion. A team arrangement with both parties driving to a common goal is a powerful approach in procuring material/equipment and services, and resolving emerging execution problems. Trust is at the core of successful supply agreements, and with openness by both parties this can be assured. In the end, a win-win is a realistic outcome of supply agreements with buyer and supplier both enjoying the upsides of successful project execution. 

Bibliography

1. RENTSCHLER, C. and SHAHANI, G., 'Comparative analysis of common project execution alternatives', *Hydrocarbon Processing*, (April 2019).
2. BERG, J., SHAHANI, G., and RENTSCHLER, C., 'Creating a "win-win" between a construction contractor and project owner – Part 2', *Hydrocarbon Processing*, (June 2018).
3. BERG, J., SHAHANI, G., and RENTSCHLER, C., 'Creating a "win-win" between a construction contractor and project owner – Part 1', *Hydrocarbon Processing*, (May 2018).
4. RENTSCHLER, C. and SHAHANI, G., 'Construction – The cornerstone of a successful project', *Hydrocarbon Processing*, (December 2017).
5. RENTSCHLER, C. and SHAHANI, G., 'Outsourcing and Offshoring Engineering and Fabrication Activities', *Chemical Engineering*, (August 2017).
6. MULROONEY, M., and SHAHANI, G., 'Signed, sealed, delivered', *Hydrocarbon Engineering*, Vol. 22, No. 2, (February 2017), pp. 93 – 98.
7. RENTSCHLER, C., MULROONEY, M., and SHAHANI, G., 'Modularization: The key to success in today's market', *Hydrocarbon Processing*, (December 2016).
8. RENTSCHLER, C. and SHAHANI, G., 'Better risk-management methods ensure project success', *Hydrocarbon Processing*, (July 2015).
9. RENTSCHLER, C. and SHAHANI, G., 'Successful project development and execution: Beyond EPC to "T-EPC"', *Hydrocarbon Processing*, (December 2014).