

## Alternative for a Turn-Key Project?

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**IS THERE AN OPPORTUNITY FOR PROJECT OWNERS TO CASH IN?** Tissue paper machine projects have in the past often been made with a 'turn-key' or EPC (Engineering, Procurement and Construction) contract. Based on negotiated contract, a contractor company - typically a large equipment manufacturer - designs and builds the plant as a turn-key installation within one contract. Turn-key sounds simple, with clear responsibilities, and mitigates the risk of the project owner.

### **THERE ARE ALTERNATIVES – WHY WOULD YOU NOT WANT ONE?**

Pöyry offers an EPCM (Engineering, Procurement and Construction Management) implementation method that gives lower total investment cost and more flexibility during the project for project owners who can handle a somewhat higher risk contingency.

A management/engineering company, i.e., an EPCM Contractor, is hired to assist the owner with services for management and coordination of the project through the engineering, procurement and construction phases, to plant commissioning and start-up.

The owner directly contracts suppliers to provide services and equipment. These contracts are managed by the EPCM contractor on the owner's behalf.

On average, the overall project cost is 10% - 20% lower for a project using EPCM contracting compared to EPC contracting. EPCM contracting results in a lower cost to the owner, as contract price includes less risk premium and the owner has a greater ability to mitigate risk.

### **ADVANTAGES OF EPCM IMPLEMENTATION IN COMPARISON TO EPC:**

- Shorter overall project time.
  - Time is saved in an EPCM contract as the procurement of main machinery with long delivery time may take place before the detailed design of the entire systems is completed. Procurement of installation contracts and standard components may take place later without jeopardizing the project time schedule. For an EPC contract, most things need to be cleared prior to contract signing.
- Lower cost.
  - Each equipment/system may be contracted to the supplier who has the most favorable price and performance for the actual service/function and that best fits in with the owner's existing equipment.
  - Less risk premium will be added on the price.
  - Only materialized risk is paid. EPCM services are based on lump sum price and tied to bonus/malus on milestones for budget, target cost, etc. This way, the EPCM contractor may mitigate the risk.
  - An EPCM contract scope is wider and often covers the entire mill site, including utilities and civil construction. This gives a potential for overall cost savings in project and in operation through compatible mill design.
- Staff's sense of ownership and more flexibility.
  - The owner has more control over the project and a stronger impact on technical design for adaptation to local conditions and existing mill standard.

– EPCM contracting is more flexible to changes during the project.

### **DO YOU PREFER TURN-KEY / EPC CONTRACTS? DO YOU MANAGE USING SEVERAL SUPPLIERS WITHIN A PROJECT?**

In a global interview research among tissue companies, the answers included, among others, the following:

– The main benefit of turn-key projects is seen to be in clear responsibilities. The main negative aspects are higher costs and the lack of negotiation power.

“The company does not exclude turn-key/EPC as possible contracting model for future projects, but such contracts should bring forth economic return/benefits (should not be more costly than managing the projects by ourselves). Turn-key/EPC and similar contracts used to be too costly.”

“Basic policy with the company, and typical in our country in general, is to buy equipment separately and internally construct the plant. There are two benefits: firstly, it is the cheapest way to get the most suitable solution, and secondly, it accumulates the in-house plant engineering know-how.”

– Companies with own-project management experience usually prefer to have max four suppliers for main machinery in one tissue machine project:

“In the past we have managed dealing with different suppliers by hiring a consulting company to do the project management and coordination between all. EPC is also possible.”

“The company usually manages 3-4 main suppliers (paper machine, hot air system, drive/DCS/QCS). More than 4 suppliers for main machinery are too many.”

– The right concept depends largely on the situation at hand – for instance on location and the size of the machine. Even if a company would not normally consider an EPC, it may decide to go that route for unknown markets and/or small machines.

“It depends on country and the size of machine. For small machines EPC is possible. Our company can have several suppliers, but three suppliers for main machinery in a project start to be enough.”

Yes, there is an opportunity for project owners to cash in! The EPCM implementation method gives an opportunity for a better insight and control over the project execution, the investment cost and project time can be reduced. •