



## **Talk on Tendering Process – the art and science of it. Why improper tenders are a project management nightmare**

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A talk on the above said title was held on 21<sup>st</sup> July 2016 at IEM. Organized by IEM Electrical Engineering Technical Division, the talk was delivered by Ir. Vignaeswaran Shanmuganathan.

Tender can be treated as an offer to do the work for a certain amount of money which enables the tenders to attain higher levels of accuracy. It should adopt fairness, clarity, simplicity and accountability. From the client's point of view, tendering initiates the step of a competitive tendering process in which qualified suppliers or contractors are invited to submit tenders. Clients need to know how to communicate across levels, quantify and qualify what is required, detail out for costing, optimize costing from several bids and determine the most competent contractor. From the contractor's perspective, these factors are paramount which include conversion of uncertainty to risk, making informed decision, future project management, future costing and future activities.

Tendering involves addressing informed decision, project risk, future costing and future activities which are all under the huge umbrella of risk management. Informed decision is an informed choice that is based on relevant knowledge, consistent with the decision-maker's values and behaviorally implemented. This can be done by understanding the Intention to Bid (ITB) thoroughly and carry out client clarifications. Project risks are events or external circumstances that cannot occur for the project to be successful. Identifying something as a risk increases its visibility and allows a proactive risk management plan to be put into place. To mitigate, it is recommended to design out or limit liability. Future cost is the price at which the two participants in a futures contract agree to transact at on the settlement date. It is an estimated quantification of the amount of a prospective expenditure. When a business is determining its budget for a future timeframe, an estimate of the future cost of necessary items is typically included. Therefore, it is advisable to ascertain the cost with liability. Future activities are the condition of someone or something in the time that will come. It is something bought for future acceptance or sold for future delivery. Therefore, it is advisable to ascertain events with liability. For instance, civil unrests may slow down or even halt your project.

Risk management is intended to acceptably accommodate the possibility of failures in elements of the program. A failure is anything accomplished in less than a professional manner and/or with a less than adequate result. Completing a project does not guarantee success. Completing a project within acceptable liability is a success.

Tendering is important to:

1. Establish project boundaries
2. Serve as a project management document
3. Detail how the project sequence will be carried out
4. Detail what will be supplied
5. Serve as a logical project management exercise before the actual physical project management activities
6. Plan cash flow
7. Identify risk
8. Address project deviations and exceptions

Uncertainty is associated with randomness with unknowable probabilities. Cost of materials next week are uncertainties if you don't have information. Risk is associated with randomness with knowable probabilities. Past and future projections of costs actions convert uncertainties to risks. Ultimately, the tendering exercise converts uncertainty to risk.

A good tendering practice should:

1. Minimize overheads by minimizing wastages
2. Maximize tenders addressed by focusing on resources
3. Speed up tender processing time by simplifying the process
4. Be parallel but this requires robust processes.

Things to do in tendering:

1. Check the tender deadline
2. Check communication for clarifications
3. Check if there is a site visit
4. Extract all drawings and datasheets for vendor quotation to prepare bill of quantity
5. Extract work for specialized sub-con quotation
6. Extract general work for sub-con quotation

Tendering risk areas:

1. Risk management
2. Process
3. Costing
4. Deadlines
5. Scope of works
6. Equipment
7. Design/engineering
8. Documentation

Good questions ought to be asked in tender risk management includes:

1. Is it in our area of expertise?
2. Is there competitive advantage
3. Is the profit margin kept?
4. Is there expanded jobs?
5. Is it from a long term client?
6. Is the deadline feasible?
7. How good are the competitors?
8. Is there extensive design involved?
9. Is there only a single source vendors involved?

Preparing detailed equipment specification will give the following advantages:

1. Less cost variation
2. No site design required
3. Possible Front End Engineering Design (FEED) has been done
4. Spares acquisition is easier
5. Simpler operations
6. Easier commissioning
7. Less complication with long lead items
8. Easier site logistics
9. Easier foundation, support and safety clearance design

In conclusion, two important criteria for tendering must be present which includes judgement and discretion. Judgement is ability to know what is right, wrong and in between whereas discretion is the ability to make responsible decisions, when and where.

The approaches in tendering presented by Ir. Vigna avoid tender processing bottlenecks, is management-centric and self-regulated. After the presentation, few questions were asked and answered and the talk ended with presentation of souvenir to Ir. Vigna for his insightful lecture.



**Presentation of token of appreciation to Ir. Vigna**