Manual for the EXAMINATION of Public Procurement Process
Transparency International India (TII) is the accredited Indian chapter of Transparency International (TI), an International Civil Society Organization based at Berlin that has turned the fight against corruption into a worldwide movement. Transparency International challenges the inevitability of corruption, and offers hope to its victims. Since its founding in 1993, TI has played a lead role in improving the lives of millions around the world by building momentum for the anti-corruption movement. TI raises awareness and diminishes apathy and tolerance for corruption, and devised and implements practical actions to address it.

Transparency International India is a part of global network including more than 100 national chapters and chapters-in-formation. TII is a non-government, non-party and not-for-profit organization of Indian citizens with professional, social, industrial or academic experience seeking to promote transparency and ethical governance and to eradicate corruption.
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Last but not the least, our thanks and sincere gratitude to Admiral (Retd) R.H. Tahiliani, who has been a pioneer and great promoter of the Integrity Pact.
Integrity Pact (IP), as a concept and mechanism, is neutral in approach and equitable in application. It is applicable to contracting parties - buyer, and the prospective/participating bidder(s) including the winning bidder, wherein both parties make a commitment to prevent corruption in any form at every stage, and in every aspect of the tender/contract, from its inception to execution and implementation of the contract. The pact also contains a set of sanctions imposable on either party in case of any violation of the pact. Transparency International India is the nodal agency for the advocacy of IP in India. However, its successful implementation depends upon various factors, among which the role of Public Sector Undertakings (PSUs), the Independent External Monitor (IEM), and vendors is of great importance.

Integrity Pact has not only helped in improving systems in organizations, but also in achieving huge savings, though difficult to calculate, through prevention of overpriced contracts or by seeking recovery from contractors’ bills for deficient works. To facilitate such examinations of public procurement documents by officials of undertakings and the IEMs, this booklet contains broad guidelines and a checklist for examination of works/purchase contracts and related documents. The manual is a compilation of broad guidelines. It is in no way a replacement of existing setup in any PSU or governmental organization.

The manual is based upon the experience gained during almost six years of its operation and the study on ‘Assessment of Integrity Pact in IP Compliant Public Sector Undertakings’ conducted by the TII under guidance of Prof M.P. Jaiswal, Management Development Institute, Gurgaon in 2012, the feedback from the vendors, senior management, and the IEMs during Focus Group Discussions and review meetings of the IP in some of the undertakings, and the national seminar held last year. During the course of such extensive interactions, certain impediments were realized and red flags identified. With a view to streamlining, to some extent, and setting up uniform standards, we have endeavoured to cover the broad issues that confront all operators of the Pact. An effort is made to cover most of the points. However, the ideal is always in the making.

I would like to record my appreciation for Shri S.Z.S. Tabish, PhD scholar at IIT, Delhi, for helping us in formulating this manual. I also thank Shri Jitendra Kohli, e-procurement expert and member TII, for his contribution to chapters on e-procurement. My special thanks are for Shri Ashutosh Kumar Mishra, Director IP, who has not only contributed in chapters on IP, but also been instrumental in formulating this manual. I appreciate his indefatigable efforts and commitment.

P.S.Bawa
Chairman, TII

March 2013
New Delhi
MESSAGE FROM THE MENTOR

It gives me immense pleasure that Transparency International India – IP Cell has been promoting good governance in PSUs in a concerted and assiduous manner. To achieve transparency and accountability through ethics is the immediate need of the Indian PSUs today, as the core value of every organization should be transparency in its operations. It is a matter of great pride for me to see how the IP-team has taken forward a concept which could not be quantified much as it tried to better the ethics of the government officials, had immense potential to clean the procurement process.

All the workshops, conferences, IP review meetings and corruption cases in the PSUs that the IP team has been handling is worth the appreciation. More importantly, preparing a detailed manual for the examination of Public Procurement Processes is a positive step towards good governance, and shows IP cell’s commitment and passion towards the anti-corruption movement in the public tenders/procurements. I congratulate the Chairman-TII and his outstanding and well developed team for their effort. I would like to specially mention the writers of this manual, Shri. Syed Tabish, Shri. Jitendra Kohli and Shri. Ashutosh Kumar Mishra for preparing this manual by incorporating the anti-corruption measures for each and every aspects of the public procurement process. It is through efforts like these that ensures transparency and accountability in the procurement process, and I am sure that the IP-cell will continue such endeavours in the future as well.

I appeal to all the stakeholders of the IP, the PSUs, IEMs and the Vendors to work towards the goal that IP has set for India – To have a transparent and accountable procurement process in India.

Sincerely

Adml. (Retd.) R. H. Tahiliani
Mentor, TII

Jitendra Kohli: Shri Kohli, B.Tech. (Electrical Engg) from IIT Delhi is the founder and Managing Director of Electronic Tender. He has been researching in the area of E-procurement with focus on public procurement for over 13 years. Based on his pioneering work, his company, Electronic Tender has developed an innovative E-procurement/E-tendering software product. The government of India’s guidelines for E-procurement have taken inspiration from his writings on the security and transparency related aspects of E-procurement. His services were recently commissioned by the Asian Development Bank for technical peer-review of the update of MDB’s e-Procurement Toolkit. In August 2012, his paper titled “Red Flags in e-Procurement/e-Tendering for Public Procurement and some Remedial Measures” was presented at the International Public Procurement Conference (IPPC5) held at Seattle, USA. He is also the general editor of The Business Guide to India (a best-selling handbook on Foreign Investment in India, published by Butterworth Heinemann (UK) in Singapore.

Ashutosh Kumar Mishra: Shri Mishra is the current Director of Integrity Pact and Corporate Social forum at Transparency International India. He holds a bachelor’s degree in Mineral Engineering from Indian School of Mines, Dhanbad and a certificate degree in Cyber Laws from The India Law Institute, Delhi. Before joining TII, he worked in mining and power sector and has experience in the area of handling issues related to beneficiation of high ash coal, beach sand minerals and clean coal technologies. His specialization includes working on whistleblower protection cases/programs, handling frauds in public procurement, promoting ethical code of conduct and also conducting various workshops and training programs on Public Procurement. He is also the co-author of the book “Assessment of Integrity Pact (IP) in IP Compliant Public Sector Undertakings.”
This manual offers Procurement officer and Independent External Monitors of Integrity Pact an overview of corruption in public procurement and of IEMs’ role in helping to curb this practice.

The first section will review the procurement process and the types of corruption common in public procurement. Later sections will provide IEMs with a discussion on their functions within the IP and with the tools necessary to ascertain and address corruption in the contracts and related documents that they are monitoring.

BACKGROUND : CORRUPTION IN PROCUREMENT

Public Procurement

Public procurement refers to the acquisition of goods, works, and services by public institutions in a country. It encompasses ministries, departments, agencies, statutory corporations, and public sector undertakings at all levels of government. The public procurement system is built on four pillars:

1. Procurement laws and regulations
2. Procurement work force
3. Procurement process and methods
4. Procurement organizational structure

In India, the Union Government has issued detailed rules and instructions to guide agencies through each of these pillars of procurement, found in the General Financial Rules (GFR) and Delegation of Financial Powers Rules (DFPR). In addition, the Finance Ministry of the Government of India has issued Manuals on Policies and Procedures for — Purchase of Goods, Procurement of Works, and Employment of Consultants. This is supplemented with the guidelines issued by the CVC from time to time. Major ministries including Defence, Railways, Public Works, and Central Purchase Organization (Directorate General of Supplies and Disposals) have also released particular instructions regarding procurement practices in their sectors.

The fundamental principle of public procurement as decreed by the Indian government states that, “Every authority delegated with the financial powers of procuring goods in public interest shall have the responsibility and accountability to bring efficiency, economy, transparency in matters relating to public procurement and for fair and equitable treatment of suppliers and promotion of competition in public procurement” (Rule 137, GFR 2005).
As this principle suggests, each of these pillars must be transparent, accountable, and efficient in order for public procurement to run effectively. Although all four pillars are intimately linked and inter-dependent, this manual focuses on curbing corruption in the third pillar of procurement, the “process and methods” of procurement, through IP.

**Procurement Process**

The procurement process refers to the steps required for an agency to purchase goods, works or services from bidder/contractors. Procurement does not necessarily include a bidding cycle as at times vendors are chosen without competitive bidding; this generally occurs if the contracts are of relatively small value. However, the IP concerns only those contracts that are large enough or important enough for the bidding process to be required or appropriate. IP should also apply to large contracts awarded to private companies on single-tender basis, without adequate justification and IP should cover all procurement process going on in a PSU and governmental organisation.

When procuring goods, works or service whose value is above the procurement threshold, therefore requiring a competitive bidding process, a government agency is required to follow guidelines designed to ensure that the goods and services are genuinely required, that it is procured at a competitive price from a qualified bidder, and that contractual obligations are fulfilled.

**The general stages of this process are as follows:**

1. **Pre-tendering**
   a. Needs assessment
   b. Planning and budgeting
   c. Definition of requirements and specifications
   d. Choice of procurement procedure

2. **Tendering**
   a. Pre-qualification
   b. Invitation to tender
   c. Bids Receipt and Public Tender Opening
   d. Evaluation
   e. Award

3. **Post-award**
   a. Contract management including Change-Orders/Variations
   b. Order and payment

---

1. OECD Principles for Integrity in Public Procurement. OECD, 2009
The expectations for each of these steps and the common indicators of corruption found therein are discussed in detail later in the manual.

First, this manual seeks to cover the entire process of tender/contract “from its inception to execution/implementation of the contract”. But our experience over the last few years indicates that the IEMs can play an useful role from the stages at the Pre-tendering and Tendering, till the award. However, the Post-award phase viz. a contract management including change orders/variations, and order and payment might bring overlapping of functions between the IEMs and the CVOs of the PSU concerned. The non-binding opinion of the IEM has little relevance to the determination of liability or wrongdoing and framing of charges and recommending of sanctions, penalties or punishment etc. Although this may have been included in the OECD Principles for Integrity, 2009, the situation here perhaps deserves a fresh reconsideration before adoption of the post-award phase in the ambit of functions of the IEMs.

**Corruption in Procurement**

Corruption, which can be broadly defined as the abuse of entrusted power for private gain, can take many different forms in each part of the procurement cycle. Before discussing how corruption manifests at different stages in procurement, the general forms that it takes will be defined.

One of the most common and serious problems of illegally inspiring during the procurement is **Bid rigging**. It takes place when companies conspire to manipulate a bidding process e.g. by fixing the price for goods and services at an artificially high level. The additional funds obtained through the inflated contracted price are then distributed amongst the conspirators.

Since bid rigging is very germane to and common in the procurement process, specific classifications of bid rigging are elaborated below.

1. **Bid rigging in which the official procurement officer is a part of the scheme.**
   a. **Excluding qualified bidders**
      i. Qualified bidders are inappropriately disqualified in order to promote a favoured bidder.
      ii. This can be accomplished using unreasonably short bid times, limited distribution of bid requests, narrow contract specifications or intimidating behaviour.
   b. **Manipulation of bids**
      i. A procurement officer tampers with bid submissions to ensure that a favoured firm wins the contract.
      ii. Tampering can include amending or disposing of sections of “losing” bids.
c. **Rigged specifications**
   
i. The eligibility criteria/specifications in a tender are tailored to favour a certain firm, and/or to keep out certain firms. This is the most commonly adopted malpractice, especially by those who are adept at the game. Even if all other steps of the bidding process are followed diligently, this one aspect is sufficient to completely bias the final outcome. Out of ‘eligibility criteria’ and ‘specifications’, eligibility criteria have greater potential for misuse, as these are amenable to being presented in a more subjective manner. To detect this form of rigging requires expert knowledge and capability.

d. **Rigged evaluation**
   
i. The specifications and criteria may not be closely observed by the procurement official, to the advantage of a favoured bidder.
   
ii. The computation by the procurement official of the bid components may be skewed to the advantage of a favoured bidder.

e. **Unbalanced bidding**
   
i. A favoured bidder is given confidential information by a procurement official that is not available to other bidders.

f. **Unjustified no bid awards**

   i. The situation is manipulated such that the competitive bidding process is avoided entirely and a no-bid award is issued.

   ii. This can be achieved by:
      
   1. Falsifying documentation needed for justification for issuing no bid contracts.
      
   2. Ignoring the requirements for no bid contracts.
      
   3. Splitting up purchases in order to stay below the competitive bidding limits/avoiding publicity.

2. **Collusive or “cartel” bidding by contractors, in which the procurement official is not necessarily involved in the scheme.**

   a. **Complementary or cover bidding**
      
i. Bidders agree in advance who will submit the winning bid.
      
ii. “Losing” bidders do one or more of the following:
       
   1. Knowingly submit a bid that is higher than that of the agreed winner.
   
   2. Offer a bid that is known to be too high to be accepted.
3. Put forward a bid with special conditions unacceptable to the purchaser.

b. Bid suppression
   i. Potential bidders refrain from bidding so that the agreed winner will receive the award.

c. Bid rotation
   i. A group of bidders take turns submitting the winning bid.

d. Market division
   i. Bidders carve up markets in different segments and only compete in their own designated segment.²

Risks of Corruption in the Procurement Process

As has been discussed earlier, the public procurement process is rife with opportunities for corruption. Some sectors are generally more prone to corruption; these include public works, contracts & construction; real estate & property development; oil & gas; heavy manufacturing; mining; pharmaceutical & medical care; utilities; civilian aerospace; power generation & transmission; and forestry. However, there are significant risks and opportunities for corruption in all sectors.

The chance of corruption in all sectors generally increases with:

• Larger contracts, as bribes are often percentages of total contract worth.
• Complex technology or complex packages without a clear “market price.”
• Greater discretion for procurement officials.
• Poor training or competence of procurement officials.
• Poor training or competence of site engineers or supervising/overseeing public officials.
• Poor supervision during execution/implementation
• Poor financial controls, oversight or insufficient accountability.
• Inadequate transparency or restricted access to information.
• Funding schemes such as direct budget support or sector wide approach.
• Actual or purported urgency or emergency, when there is less time for review and oversight.

² The section on “Corruption” drew on definitions from the OECD, the U4 Red Flag Tool and J. Andvig’s Corruption
• Increased social acceptance of corrupt practices.
• Non disclosure of conflicts of interest between an official’s public duties and private interests.
• Lack of segregation of duties
• Strong personalities involved in the decision making process

Corruption can manifest itself in different forms depending on what part of the procurement process it occurs. The following are the major corruption risks associated with each stage of the procurement cycle.

**Pre-tendering risks**

**Needs assessment**

• Needs assessment is insufficient or biased/manipulated due to alleged:
  ▪ Shortage of time.
  ▪ Lack of capacity.
  ▪ Lack of competence.
• Purchase is unnecessary or of little public value and demand is inflated.
• Potential alternatives are not adequately studied or sub-optimal alternative is selected.
• Political or diplomatic pressure compromises the objectivity of the appraisal.

**Planning and budgeting**

• Planning and budgeting of purchases are insufficient and/or unrealistic.
• Budgeting is deliberately made unrealistically low to assure political acceptance.
• Goods and services proposed to be procured diverge with the overall investment plan of the government.

**Definition of requirements or specifications**

• Bidding documents or specifications are tailored to benefit/give undue advantage to one bidder.
• Bidding documents or specifications are made unnecessarily complex in order to hide corrupt actions and to make monitoring complicated.
• Bidding documents or specifications ignore the relevant guidelines issued for that sector/ activity, or merely pays lip-service to such guidelines.
• Selection and award criteria are:
  ▪ Not objectively defined.
Public Procurement Process

- Unclear.
- Not established and announced in advance.

- Firms are shortlisted or prequalified due to bribery rather than qualifications.
- Firms provide falsified documentation, such as quality assurance certificates.
- Non defining of Risk matrix leading to speculative bidding. Need for clearly demarcated risks. Need for pragmatically assigning only those risks which are reasonably applicable to contractors, is crucial for successful contract.
- Clearly defined action against contractor for failures or defaults. Cost implications/liquidated damages to be pre assessed & defined through bid documents.
- Defining midterm evaluation systems during contract performance.
- Systems to be defined to ensure preparedness for contract performance in case of termination of the contractor. Systems need to be defined to avoid over dependence on a single contractor.

Choice of procedure

- Procedures are non-competitive or unclear without justification.
- Legal exceptions are manipulated to allow for non-competitive procedures:
  - Contract is split so as to remain below the competitive bidding threshold.
  - Complexity or only one contractor can supply the goods and services, is exaggerated.
  - Emergency or urgency of a situation is exaggerated.
  - Existing contracts are extended rather than retendered without adequate justification.
- The timeframe is not consistently applied for all bidders.
- Relevant information is not shared with all bidders.

Tendering Risks

Invitation to tender, bid-receipt and public bid-opening

- Public notices for bids are published with very limited time for response, allowing only pre-informed firms to prepare the tender documents.
- The criteria for the selection of the winning bids are not made public.
- Lack of competition leading to an unreasonably high price.
- Competitors conspire/collude to artificially raise the bid price.
• Firms offer bribes in order to gain confidential information about tendering, the evaluation process or criteria or competitors’ bids.

• The tender opening is not conducted publicly, or is conducted in a non-transparent manner. One of the mal-practices in the latter scenario is that salient points of the opened bids are not read out aloud for the benefit of the participating bidders, thus leaving room for future manipulation.

• Non-existent front companies, representing blacklisted or otherwise unqualified companies, submit bids to make the process appear more competitive or to facilitate award to an unqualified favoured bidder.

• Unexplained delays in the closure of tenders increasing the cost of bid security/bonds for bidders.

Evaluation

• Decision makers are biased due to corruption in the evaluation process.

• Unclear definitions of the selection or evaluation criteria allow for a subjective evaluation.

• Decision makers do not apply or misapply the announced criteria or add new non-announced criteria during the evaluation.

• The evaluation protocol and computations of the components of the bids are not made public.

• Evaluation period is too short to perform a comprehensive evaluation on the bidders.

Award

• Decision makers are biased towards a favoured bidder in the award process.

• The records of the award procedure are not accessible.

• Unexplained delays in the decision making giving scope for manipulation behind the scenes.

Risks after the contract is awarded

Contract Management

• Lower quality materials or sub-specification performance compared to the contracted quality.

• Higher priced materials, goods and services than those contracted are used to demand, through change orders/variations, higher prices and possibly to help pay bribes.

• Contract revisions to allow for more time, decreased outputs, lower specifications or higher prices.
• Change orders/variations (relating to specifications and/or price) designed to increase payments to the contractor are submitted frequently in small amounts to avoid involvement of supervisors in the approval process.

• Fraudulent change orders/variations are approved by site engineer or supervisory official.

• Good or services are not supplied but are recorded as having been supplied.

• New assets are stolen before delivery or before being recorded.

• Poor supervision allows substandard work to go undetected.

• Subcontractors are not selected and approved in a transparent manner and are not approved by the agency, neither are they kept accountable for their work.

• Introduction of Extra items/ Extra work to complete the project or the manner of determination of rates for such items/works.

• Failure in Risk management aspects: Proper implementability of Risk Matrix needs to be assessed at planning stage.

• Documentation systems: Need for strengthening proper documentation of hidden items, materials consumption, manpower provided, machinery deployment by the contractor or sub-contractor duly supported with purchase details and proper supporting documents.

• Extension of Time: Crucial to assess whether necessary or justified.

• Professionalism and promptness in contract management.

**Order and payment**

• Fraudulent claims are made for goods and services that were not supplied.

• Corrupt supervisors justify/approve false or fraudulent claims.

• Corrupt officers deliberately delay even legitimate claims on frivolous grounds to pressure honest contractors.

• A lack of separation of financial and contract performance supervision resulting in false accounting, cost misallocations and false invoicing.

• Renegotiation of the contract is allowed, resulting in substantial changes to the contract that favours the contractor.³

• Unexplained delay in making payments for on account & final payments.

There should be a time bound payment system for account & final payments, and also time bound final closure of work including a completion plan. Accountability needs to be defined at various levels.

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Recognizing the pervasiveness and complexity of corruption in public procurement, Transparency International devised the Integrity Pact (IP). The initiative, which takes the form of a legally binding contract between government agencies and private suppliers of goods and/or services, aims to curb this corruption. This section will provide an overview of the IP and the IEM’s role therein.

Review of the Integrity Pact

Throughout the world Transparency International has tried to put in place systems which will curtail corruption. TI-India, in conformity with that principle, has had a measure of success in promoting the Integrity Pact. It is an instrument which commits the buyer and the potential bidders to total transparency. Its implementation is assured by Independent External Monitors who are people of unimpeachable integrity. It has been observed worldwide that the Integrity Pact smoothens the procurement process, avoids litigation and arbitration.

Govt. of India (Ministry of Finance) has issued a new Integrity Document vide their letter no. 14(12)/2008-E-II(A) dated 19th July 2012 to all the Central Ministries and Departments and dated 20th July 2012 to DPE for Central PSUs for adoption in consultation with the Financial Advisor of the concerned ministry. This was sent by DPE to all PSUs vide their letter no. DPE/13(12)/11-Fin dated 9th Sept 2012.

Facts about IP in India

- TI initiated the IP during the 1990s and the first IP in India was signed in 2006.
- Since 2006, the IP has been adopted by 45 PSUs in India.
- In 2007, the CVC recommended that all PSUs adopt the IP.
- Implementation of the IP has been seen to:
  - Improve the public perception of companies that adopt it.
  - Secure the integrity of a procurement process.
  - Result in faster processing of contracts at more competitive prices.
  - Reduce the number of lawsuits and false complaints.

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4 Admiral Tahiliani’s address at TI’s National workshop on Integrity Pact (23 January, 2010)
Basics of the IP

The IP is a preventive anti-corruption tool that addresses all forms of corruption in the procurement process. Its goal is the reduction and, eventually, elimination of any opportunity for corruption. The IP, which is a legally binding agreement, is signed by government agencies and their bidders/selected contractors for specific contracts with the intention of accomplishing two primary objectives:

- Companies are able to abstain from bribing. They are provided assurances that their competitors will also refrain from bribing and that the government agencies with which they are working will undertake to prevent corruption by their own officials and follow transparent procedures.

- Governments reduce the high cost and distortionary impact of corruption on public procurement, privatisation or licensing.

Before an agency can sign an IP, it must sign a Memorandum of Understanding (MoU) with TII, confirming its commitment to transparency and fighting corruption. There are certain prerequisites the agency must meet:

- A clear understanding of the IP implementation process.
- Sharing its Code of Conduct policy with TII.
- A commitment to implement the IP reflected in words & deeds.
- Taking steps to inform/communicate internal staff about the IP.
- Appointing a Nodal officer to deal with TII on IP-related issues.
- In case of changes/modifications in the draft MoU & IP program, consulting TII and sharing the final draft MoU and IP Program with TII.
- Having all IEMs approved by CVC before entering into the MoU with TII.
- Ensuring that the representatives from the Principal, Vendors and IEMs are present during the signing of IP.
- The Chairperson of the organization sign the MoU.

Although each IP will be tailored to the specific agency signing it, there are key elements that will be present in every IP.

- There are three players to every IP:
  - The Principal (or the Company/Authority/Agency) is a government authority/agency that is inviting public tenders for supply, construction, consultancy or other services, for the sale of assets, or for a license or concession.
  - The Vendors (or the Bidders) are the bidders submitting tenders for this activity.
The Independent External Monitors (IEM) are independent citizens of high integrity with expertise in the relevant field.

- Once adopted, the IP should cover:
  - All tenders/procurements above a specific threshold value. This value should be determined after an ABC analysis such that it covers 90-95% of the total procurements of the organization, in monetary terms.
  - Complicated or important contracts, even if below the monetary threshold, if decided so by the management.

- It is made mandatory for bidders to sign the IP and that only those bidders that sign it be allowed to participate in the tender process.

- The Purchase/Procurement wing of the agency is the focal point for the IP implementation. The Vigilance Department is responsible for review, enforcement, and reporting on all related vigilance issues.

- The IP must cover all phases of the contract, from the NIT/pre-bid stage to the full implementation of the contract.

- The Principal agrees:
  - That none of its officials or representatives will pay, offer, demand or accept bribes, kickbacks, gifts or other undue or improper payments.
  - To disclose all commissions, payments and documents made in connection with the contract by partners, agents, brokers or any other intermediary.
  - Not to commit any offences under the IPC/PC Act.
  - To discipline any officials found to be violating the IP with appropriate disciplinary or criminal sanctions.
  - To treat all bidders fairly and transparently, this includes not offering confidential information to any bidders, or withholding information from any bidders and excluding persons from the process known to be prejudiced.
  - To inform the CVO if it obtains information or substantial suspicion regarding conduct of any of its employees that is a criminal offence under the IPC/PC Act.
  - To provide IEMs sufficient information and access to all meetings and documents related to the project that could have an impact on the contractual relations and agreements.

- The Vendors agree:
  - Not to pay, offer, demand or accept bribes, kickbacks, gifts or other undue payments.
To disclose all commissions, payments and documents made in connection with the contract by partners, agents, brokers or any other intermediary.

Not to commit any offences under the IPC/PC Act.

Not to collude with competitors or otherwise employ corrupt practices during a procurement process.

To disclose any transgressions made by other companies that violate the terms of the IP.

Not to disclose any information provided by the Principal as part of a business relationship to others or to otherwise improperly use any such information.

If foreign based, to disclose the name and address of agents and representatives in India or, if Indian, to disclose foreign principals or associates.

That the no-bribery commitment, the disclosure obligation and the attendant sanctions remain in force for the winning bidder until the contract has been fully executed.

That all undertakings on behalf of bidding companies will be made “in the name of and on behalf of the company’s Chief Executive Officer, with the approval of the Board of Directors or other governing body.”

Not to employ or engage any third persons to commit any such offences outlined above.

To declare that no transgressions of the kinds outlined above occurred in the last three years with any company or public authority in any country.

To provide to the IEMs access to any documents/records that are relevant to the bidding process or the contract.

A predetermined and announced set of sanctions for any violation by a bidder/contractor of its commitments or undertakings must be included in the IP. These might include:

- Denial or loss or termination of contract.
- Forfeiture of the bid security performance bond.
- Liability for damages to the Principal and competing bidders.
- Debarment/blacklisting of the violator by the Principal for an appropriate period of time.

Bidders are advised to have a company Code of Conduct that clearly rejects the use of bribes and other unethical behaviour as well as a Compliance Program that oversees the implementation of this Code of Conduct.

Bidders are advised to provide additional training to company representatives directly involved in the relevant project on what constitutes corruption as well as how to report on any requests made.
- If the IP is not properly implemented, officials are subject to penal action and bidders/contractors face termination of contract, forfeiture of bond, liquidated damages and blacklisting.
  - These penalties will generally not be determined through criminal conviction but rather a “no-contest” agreement based on available evidence and a lack of material doubts.

**IEMs’ role within the IP**

The IEM monitors independently and objectively whether and to what extent both the Principal and the Vendor respect and comply with these obligations.

- Disputes in the implementation and progress of the IP are resolved by mediation with the aid of the IEMs.
- Information relating to tenders in progress and under finalization must be shared with IEMs monthly/periodically as is appropriate.
- The Principal, Bidders/Contractors and subcontractors are all responsible for providing IEMs unrestricted access to project related documentation.

IEMs are vital to the successful execution of the IP. They are entrusted to monitor not only bids and tenders and their evaluation including the award decision, but also the execution of a project. Since IEMs offer advice in lieu of legal orders, they can oversee cases quickly and efficiently, reducing time and money spent adjudicating complaints during the procurement process.

Sometimes what appears to be corruption during procurement is the result of the lack of capacity, or inefficiency on the part of procurement officials. The IEMs can help address these shortcomings by offering suggestions to reform procurement and minimize both perceived and actual corruption. The IEMs can also insist and ensure that relevant training be imparted to the concerned procurement officials to overcome observed knowledge-deficiencies.

**Selection of IEMs**

- PSUs may nominate individuals whom they believe would make successful IEMs and the CVC confirms them before they take the office.
  - TII can also nominate credible IEMs for the PSUs upon need.
  - Other bodies that can nominate IEMs include non-involved government offices, or credible NGOs.
  - The nominee should be forwarded to the CVC along with their detailed bio-data. This includes position for at least the previous ten years, achievements, and relevant qualifications and experience.
  - IEMs must have the necessary technical and domain knowledge to monitor the procurement process of the PSU to which they are assigned.
It is desirable that all of the IEMs have procurement experience.

IEMs must be of the highest integrity and reputation and able to objectively evaluate the presence of corruption in the procurement process.

A person to be appointed as IEM in a particular PSU/Department should not be related to any person in important position in that organization nor to any important functionary of any of vendors associated with that organization/PSU.

- The number of IEMs for each PSU will vary according to the scale of the PSU and the volume of work.
- Three can be appointed at Navratna PSUs and, if the PSU has multiple major locations, two can be appointed at each subsidiary.
- The term of an IEM is 3-years, subject to renewal or, in case of wrongdoing, early removal, by the CVC. A person can be the IEM for not more than 2 PSUs.
- The terms and conditions of appointment, including remuneration, are to be communicated individually with the IEMs and not included in the IP or NIT. In this respect, it needs to be clarified whether an IEM shall be treated as a public servant.
- It has been stated that PSUs may nominate individuals whom they believe would make successful IEMs and the CVC confirms the appointment. The very approach of nomination of individuals by PSUs, which entails discretion, itself appears to be contrary to the spirit of transparency. Therefore, there may be a pool of IEMs through an open advertisement and given assignments against complaints or on as-needed basis.
- Good health and an age limit may be prescribed as conditions for engagement of IEMs, for due and diligent performance.
- In order to avoid any allegation or appearance of bias or partiality, IEMs should preferably not be assigned to a PSU to which they have belonged.

**IEM’s Responsibilities**

- IEMs monitor the entire procurement process, ideally from before the pre-tendering stage through the execution of the contract.
- IEMs are responsible for ensuring that the IP is implemented and the obligations of both sides are respected.
- Names and contact details of all IEMs should be notified from NIT stage, all IEMs of a PSU should examine complaints when received.
- It is essential that an IEM reviews with equal scrutiny the cases brought against vendors/contractors, as well as those brought against the PSU.
- The copy of the IEMs report should invariably be copied to CVO as a stakeholder in the process.
• Ideally, IEMs will meet at least every two months to review an on-going tendering process.

• In addition to monitoring the conformance of all parties to the stipulations of the IP and anti-corruption practices, the IEM should ensure that:
  – In cases where managerial decisions differ from procurement procedures, they do not unduly favour any party.
  – All bidding documents meet accepted standards.
  – All parties comply with commercial confidentiality and treat all information and documents with confidence.
  – The names and contact details of IEMs are published on the PSU’s website and tender documents, to allow potential complainants to contact them directly and discreetly.

• To fulfil their duties, IEMs will:
  – Be proactive, and not wait for complaints.
  – Examine all documents as necessary or desirable.
  – Focus in particular on invitations to tender including the specifications, all amendments to and clarifications of invitations to tender, the bids received, the evaluation protocol and the award decision, and all change orders/variations.
  – Check and remove biases in tender documents.
  – Participate in meetings, review processes, public hearings and opening/closing sessions of bidders and the principal.
  – A time frame of at least one meeting every month may be laid down and a senior officer under the CVC to regularly monitor adherence to this.
  – Organize and lead training sessions on the IP for bidders, PSU employees, NGOs and the public.
  – Organize pre-bid conferences in which all participant of the tender process can discuss ideas and concerns.
  – Monitor the implementation of the contract.
  – Widely publicize the verdicts of investigations into complaints to prove their effectiveness, impartiality and expeditiousness.
  – Meet regularly (e.g. monthly) with the Chief Executive of the PSU, as well as the vendors/contractors, to discuss the progress of the IP and discuss the ongoing tendering process.
Visit the work site of the project regularly, once in every 3 months, the frequency may increase according to need.

Meet with the Chief Technical Examiner of the CVC to review technical details if need felt.

Organize teleconferencing meetings as a quick resolution to issues when all parties are not centrally or conveniently located.

Contact other IEMs who might have dealt with similar situations.

System improvements suggested by CVO & CVC may also be examined by IEMs for suitable implementation in corporation.

- As soon as IEMs perceive a violation of the IP agreement, they must inform the management of the principal and request relevant and corrective action to be taken via non-binding recommendations.

- A major purpose of having IEMs is to resolve the disputed quickly so that vendors don’t rush to litigate and obtain stay orders which adversely affects the procurement process. The main delay is the time taken by the parties in furnishing the information and documents for the IEMs to give their recommendations.

- After examining a complaint, the IEMs should submit their recommendations and opinions to the Chief Executive of the principal.

  - If the IEMs suspect serious irregularities or believe that legal action is required, they can also send their reports to the CVO or CVC.

- IEMs should submit written reports on complaints and the procurement process to the Chief Executive in a timely manner (e.g. within 8-10 weeks).

- IEMs should report only to the CMD of a PSU, with a copy to the CVO. This is because if a corrupt act takes place, the CVO can get a timely warning and alert the CMD. In almost all PSUs, the CMD is the head of vigilance. Therefore it is only proper that all correspondence to the IEMs should issue from him or with his knowledge / approval. Similarly, the IEMs should also direct them to the CMD only.

- As the IEMs are associated with a particular PSU for the purpose of monitoring of contracts at various stages independently, it would be necessary that they familiarize themselves with the provisions of the governing contract manuals of the organization. The IEMs should also familiarize themselves with the CVC circulars and guidelines, vigilance manuals and the role of the vigilance set up of the organization.

- The IEMs should try to build trust not only amongst the vendors/contractors but also with the CEO, CVO and other officials of the organization to build up a synergic anti-corruption movement.
What an IEM CANNOT do

- The IEM cannot be a part of or participate in the executive functions of the PSU.
- The IEM cannot aid in the initial drafting of the tender or otherwise compromise the independence of from the process.
- The IEM cannot issue legally binding orders or demand action.
- The IEM is not subject to instructions by any involved party.
- IEMs should avoid making remarks on the conduct of any official of the organization in his report unless based on facts and good evidence.

Documents for Inspection

The IEM can request to inspect inter alia any of the following documents:

- Needs assessment related studies and documents
- Contract justification, investment and location decisions
- Procurement/contracting plan
- Drafts of bidding documents
- Official bidding documents
- Amendments to bidding documents
- Requests for amendments which were not accepted
- Clarifications on bidding documents (Q&A)
- Bidder’s prequalification documents
- Prequalification report
- Original approval of NIT
- Official bid invitation
- Press cuttings and advertisements (including extended dates, if any)
- Bidder’s proposals
- Bid evaluation
- Bid evaluation report that describes how evaluation criteria were applied to each bidder and prices computed
- Register of sale of tender documents
- Register of openings of tenders
- Details of any negotiations made before acceptance of tenders
- Rejected tenders and comparative statements for the selection of architects/consultants, short-listing of PQ of tenders and other tenders
- Award decision (including reasons that substantiate it)
• The contract signed by the parties
• Guarantee bond, etc. towards security for work/purchase contract, etc.
• Insurance policies for work, materials, workers, etc.
• Renegotiations for contract changes or amendments
• Amendments/variations to contract
• Progress reports
• Audit/supervision reports
• Any complaints received which were addressed to the management, and not to the IEMs.
• All bills paid in original/running account bills with all connected enclosures.

**Conducting an Inspection**

Ideally, IEMs will give adequate advance notice of an inspection so that the organisation may ensure that the concerned officers and engineers will be present at the meeting office or site. These might include representatives of the planning, design, tender processing, acceptance of tenders and construction wings. If possible, the consultant or other representative of the contractor and a technical officer who has good knowledge of the procurement procedure and rules should be present.

**Importance of IEM**

The office of IEM is a cost-and time-effective tool in the fight against corruption in public procurement. Rather than litigation in an invariably long and costly affair, the IEM review process is quick, inexpensive and, if properly implemented, provides the aggrieved with an alternative remedy.

In a recent clarification, CVC has informed that IEMs need not entertain complaints that involve interpretation of terms of contract. This clarification appears in conflict with the manual, which seems to suggest that IEMs should entertain such complaints that will avoid costly and time consuming litigation. TII believes that there is no harm if IEM is allowed to interpret the terms of contract.

Unlike officials in the CVC or CVOs, IEMs are assigned to comprehensively monitor and thus become intimately familiar with specific procurement processes. This allows them to work on a proactive basis, catching corruption early and remedying the situation, rather than allowing it to grow and discredit an entire tendering process.

CMD and top management should inform IEMs of the action taken by the PSU on the report rendered by the IEMs. If advice in the report is not acted upon, the grounds for doing so should be given. This step may help the CVC in case a serious corruption case is unearthed later.
Complaint Handling Mechanism

In regards to the process of handling complaints, it has been varying with different PSUs. However, we think that in order to achieve effective complaint handling mechanism it is necessary to streamline the procedure. For this, CVC can come out with a standard guidelines for the complain handling for the IP cases, so that all the IEMs can follow a set guidelines. This will help expedite the complaint handling process and make the tracking of the complaints easier, which will benefit both the PSUs and the vendors. Throughout the process of the complaint, the IEMs should copy any form of correspondence to the nodal officer of the PSU, and if the complaint involves the vigilance angle than the CVO should be copied. The copy of the documents/reports prepared by the IEMs should also be circulated to all the parties involved. Divulging any sort of information to a third party is strictly prohibited for all the parties. The principal of natural justice is to be applied while dealing with the IP cases. The complainant and the accused both must be given opportunity to be heard by the IEMS.

The IEM of an Integrity Pact has been tasked with significant responsibilities, and the following are tools that may be used to fulfil the potential of this role.
Manual for
The Examination of
Public Procurement
Process

Tools for the IEM

The IEM of an Integrity Pact has been tasked with significant responsibilities and the following are tools that may be used to fulfil the potential of this role.
Tools for the IEM

Checklist for IEM

While there is no way to ensure that a procurement process is entirely corruption-free, completing the following checklists at each stage of procurement will provide the IEM with a procedure to rule out the most common forms of corruption.⁵

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Action Required</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administrative approval and financial sanction from competent authority has been taken to execute the work</td>
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<tr>
<td>2</td>
<td>All provisions are standard and objectively chosen</td>
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<tr>
<td>3</td>
<td>Work to be executed as per the tender aligns with the accorded sanction</td>
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<td>4</td>
<td>Technically sound estimates are prepared on the basis of detailed analysis of rates to arrive at a realistic projected cost</td>
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<td>5</td>
<td>Same components are not stipulated in more than one item, resulting in duplicate payments</td>
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<tr>
<td>6</td>
<td>The consultant is appointed after open publicity and competition</td>
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<tr>
<td>7</td>
<td>The credentials of all consultants have been verified.</td>
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<tr>
<td>8</td>
<td>The criteria adopted in prequalification of consultants are not restrictive and do not benefit certain consultants. Requests for amendments in the criteria have been considered in a fair and just manner.</td>
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<tr>
<td>9</td>
<td>The offer of the lowest consultant is not ignored on flimsy grounds.</td>
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</tbody>
</table>

⁵These checklists were put together based on case studies reported by TI and CVC, observations of technical vigilance audit reports and personal interviews of key officials involved in these audits.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Action Required</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>10</td>
<td>The appropriate authority selects a consultant.</td>
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<tr>
<td>11</td>
<td>The role of the consultant is clearly defined.</td>
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<tr>
<td>12</td>
<td>The provisions are stipulated for any partial or repetitive work by the consultant thereby avoiding future manipulation.</td>
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<tr>
<td>13</td>
<td>The upper ceiling for payments to the consultant is fixed.</td>
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<td>14</td>
<td>The Detailed Project Report is prepared as per actual site requirement.</td>
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<tr>
<td>15</td>
<td>The consultant has submitted performance guarantee in time.</td>
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<tr>
<td>16</td>
<td>Performance guarantee submitted by the consultant is renewed regularly.</td>
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<tr>
<td>17</td>
<td>The refund of service tax, excise duty, etc. is done after obtaining proof of the original amount having been deposited.</td>
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</table>

**Checklist for Tender Stage**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Action Required</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>The updated standard bidding document is used for the tendering process.</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>The approval of competent authority is taken for the tender documents.</td>
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<tr>
<td>3</td>
<td>Stipulated conditions in the contract are feasible to be performed.</td>
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<tr>
<td>4</td>
<td>The performance guarantee clause stipulated to eliminate non-serious bidders.</td>
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<tr>
<td>5</td>
<td>The condition regarding splitting of quantities, if required, is stipulated in the tender document.</td>
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<tr>
<td>6</td>
<td>The nomenclature of the item, drawings and specifications conform to each other.</td>
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<tr>
<td>7</td>
<td>Adequate and wide publicity is given to the tender.</td>
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<tr>
<td>8</td>
<td>Adequate time for submission of offers given.</td>
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<tr>
<td>9</td>
<td>Complete address of place of tender submission notified.</td>
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<tr>
<td>S.No.</td>
<td>Action Required</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>10</td>
<td>Documents for sale and public opening of tender are properly maintained in transparent manner.</td>
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<tr>
<td>11</td>
<td>Unduly restrictive criteria that create entry barriers for potential bidders are not stipulated. Requests for amendments in the criteria/ specifications have been considered in a fair and just manner, and are in line with any official guidelines which may be applicable.</td>
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<tr>
<td>12</td>
<td>The objective evaluation criteria for the contractor are detailed in the tender document.</td>
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<tr>
<td>13</td>
<td>Stipulated Prequalification (PQ) Criteria for selection of the contractor are not stringent.</td>
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<tr>
<td>14</td>
<td>The PQ criteria are consistently applied as notified during the evaluation of all potential bidders.</td>
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<tr>
<td>15</td>
<td>The evaluation criteria are clearly defined and notified to the bidders.</td>
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<tr>
<td>16</td>
<td>The PQ process is carried out as per notified criteria.</td>
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<tr>
<td>17</td>
<td>The credentials of the bidders are matched and verified with the notified criteria.</td>
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<tr>
<td>18</td>
<td>The evaluations of tenders are done exactly as per notified criteria.</td>
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<tr>
<td>19</td>
<td>The bids are opened in the presence of all available bidders, salient points of the bids are read out aloud, and pages of the opened bids are counter-signed by the tender-opening officers in the presence of the bidders.</td>
<td></td>
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</tr>
<tr>
<td>20</td>
<td>All corrections, omissions, insertions and overwriting are attested to and accounted for.</td>
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<tr>
<td>21</td>
<td>‘On the spot summary’ is prepared in tender opening register and signed by the representatives present.</td>
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<tr>
<td>22</td>
<td>Appropriate authority relays the tender decision within validity period.</td>
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<tr>
<td>23</td>
<td>No item is deleted after the opening of tender.</td>
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<tr>
<td>24</td>
<td>Any negotiation on tender is done as per established guidelines.</td>
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<tr>
<td>25</td>
<td>The conditions/specifications are not relaxed in favour of contractor to whom the work is being awarded.</td>
<td></td>
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</table>
### Public Procurement Process

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Action Required</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>The offer of the lowest bidder/consultant is not ignored on flimsy grounds.</td>
<td></td>
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</tr>
<tr>
<td>27</td>
<td>The work order/supply order is placed within justified rates.</td>
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<tr>
<td>28</td>
<td>The specifications are clear and objective and allowing for broad competition</td>
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</tbody>
</table>

### Checklist for Execution Stage

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Action Required</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The work is executed with the availability of funds for the stipulated purpose.</td>
<td></td>
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<tr>
<td>2</td>
<td>The work is executed as per original sanction accorded.</td>
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<tr>
<td>3</td>
<td>The bank guarantee(s) submitted by bidder were verified.</td>
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<tr>
<td>4</td>
<td>The contractor is following compliance of conditions regarding licenses, insurance licenses and deployment of technical staff.</td>
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<tr>
<td>5</td>
<td>The compliance of agreement conditions is fulfilled.</td>
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<tr>
<td>6</td>
<td>All the mandatory tests are carried out.</td>
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<tr>
<td>7</td>
<td>Proper records of hindrances are kept from the start of work.</td>
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<tr>
<td>8</td>
<td>The technical staff as per tender stipulation is provided at site.</td>
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</tr>
<tr>
<td>9</td>
<td>The contractors are paid only for the portion of work/goods properly documented as completed/supplied by them.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The contractors are not paid for the part of work/goods not completed/supplied by them.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>All the recoveries are effected as per contract.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Recoveries for the land rent or equipment given to contractor are effected.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Escalation clause is applied correctly for permissible payment.</td>
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</table>
“Red flags” in the Procurement Process

When completing the above checklists for a procurement process, it can be difficult for an IEM to know which deviations to look for. The following is a list of “red flags” or indicators. While some of these are likely to occur in any complicated procurement process, it is important for IEMs to recognize that, particularly when dealing with companies that have a reputation for mismanaging funds or with a process that raises a number of these concerns, the presence of these “red flags” does not prove corruption but should catalyse further investigation.

1. Trends to be aware of over a series of bidding processes

Although IEMs primarily deal with individual procurement processes, when working with a single PSU over a series of contracts, an IEM should be on the lookout for potentially suspicious trends.

- Awards rotate amongst a small group of bidders.
- The same small pool of bidders bid each time.
- The company shows an inclination to extend contracts rather than retender.
- Bid prices drop significantly when new companies join what was otherwise a consistent, small pool of bidders.
- Supervisors accept, ignore or excuse poor quality work and then rehire the same company.
- Bidders submit different quotes on separate contracts for the same line item in a short time span.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Action Required</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Contractual deviations, especially in abnormally high rates and high valued items, are properly monitored and verified.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Duplicate payment for the same activity under two different items is not approved released.</td>
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<tr>
<td>16</td>
<td>The recoveries for statutory taxes/duties are made before payment is released.</td>
<td></td>
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<tr>
<td>17</td>
<td>The required guarantees for water tightness of roof/basements, termite proofing, etc. are obtained.</td>
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<td></td>
</tr>
<tr>
<td>18</td>
<td>All change orders/variants are properly sanctioned, justified and reasonable</td>
<td></td>
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</tr>
</tbody>
</table>
• A PSU neglects to assign an IEM at the beginning of a new bidding process.

**Pre-tender Stage**

2. **Regarding choice of projects**

• Projects chosen are generally large capital projects with significant discretionary spending rather than maintenance or incremental upgrades.

• Project proposals are poorly defined, nonspecific or unnecessary.

• No thorough needs assessment is completed or delivered, or it is ignored.

• No long-term development or annual procurement plan is prepared for a project, or if there is, it is ignored.

• No preliminary survey or adequate site investigations are conducted.

• Contracts are divided (by time or project) so that the amounts are just below certain procurement or IP thresholds.

• Contracts reflect a focus on inputs rather than outputs (as these are more easily tailored to specific vendors).

• Cost estimations are poor, generic or differ from market rates.

• Projects are timed to occur at the end of the fiscal year when the company can claim a need to be “urgent.”

• “Urgency” or “emergency” is not adequately justified.

• “Urgency” or “emergency” is used to invalidate more standard anti-corruption safeguards than justified.

• The contract includes work not necessary to complete the project.

3. **Regarding the advertisement of a tender**

• Advertisement does not provide adequate information for a vendor to decide whether to bid.

• Advertisements are printed in special/limited rather than wide release issue.

• Advertisements are published in remote or minor newspapers rather than the central area of demand.

• There is no general advertisement and applications for tenders are only sent to a select group of vendors.

• Advertisement is released during a holiday.

• Advertisement has not been posted on the Central Procurement Portal (CPP) of the Government of India
4. **Regarding the tender design and prequalification**

- Bid specifications, including technical or documental requirements, are unusually narrow (so as to favor a particular bidder, or to keep some bidder out), complex or vague.

- PQ requirements are unreasonable with respect to project necessities (and may thus favor a particular bidder, or keep some bidder out).

- Bidding documents or process are non-standardized.

- Evaluation criteria are subjective or unclear.

- A vendor was consulted or aided in composing the tender.

- Many documents and copies are required for a bid, with one missing paper allowing for disqualification.

- Evaluation criteria are weighted in favour of subjective parameters (e.g. architectural values) that were not adequately pre-announced.

- Bidding documents are not made widely available.

**Tender Stage**

5. **Regarding pool of bidders**

- Unusually few or many bidders apply.

- Bidders are not listed in telephone or business directories, or on the relevant site of the Ministry of Company Affairs.

- There are multiple applications from new or unknown bidders.

- Reputable or qualified bidders fail to bid.

- Qualified bidders withdraw during the bidding process.

- The bidders are all active in the same local trade circles or associations.

- Foreign vendors face unjustified constraints.

- Bidders are registered in secrecy jurisdictions or owners/shareholders of the bidders are firms/companies rather than individuals.

- Bidders offer personal phone numbers, no address site for company facilities or have an opaque ownership structure.

- Bidders have previously been blacklisted.

6. **Regarding submitted bids**

- Bids are identical or contain unusual similarities (e.g. phrases, typos, arithmetic errors, font, phone numbers, and addresses).
• Documents appear falsified, tampered or otherwise unprofessional (especially experience certificates, signatures, resumes, financial documents).

• Bid securities by different bidders are from the same financial institution, or were issued the same day or sequentially (based on serial numbers).

• Photocopied documents are provided rather than originals (particularly if they appear blurry, messy or otherwise possibly tampered with).

• Many bids, particularly from generally qualified vendors, appear incomplete or have high budget estimates.

• A group of qualified bidders do not bid against each other or offer complementary bids on different parts of the contract.

• Within budgets:
  ➢ Budgets or line items between bids are too close or too far apart (should differ by 1-10%).
  ➢ Budgets differ by consistent, even intervals (1%, 5%, etc.).
  ➢ One budget is significantly lower than all the others.
  ➢ Winning budget is very close to Principal’s estimated budget.
  ➢ Numbers are round or too clean (300,000 Rs. rather than 297,982 Rs.).

7. During bidding process

• Bid time period is unreasonably short (e.g. 3-4 days) and not in line with the period stipulated in the GFR.

• Lowest evaluated bidder is disqualified or withdraws with poor justification.

• The Principal’s procurement rules or approach changes suddenly and/or significantly (rigid adherence to normally flexible rules, or the opposite).

• The Principal does not review all of the bids.

• The Principal inconsistently requests clarifications or allows for exceptions among similar bidders.

• A bidder receives very specific clarification requests, especially for budget concerns, that could be a pretext for renegotiation.

• Bidders do not register any complaints against each other (especially when other “red flags” are present).

• Bidders register highly specific complaints against competitors, possibly suggesting leaked confidential information.

• The award process, requirements or evaluation criteria are changed from the original tender.
• Bidders are ruled qualified or unqualified without documentary support.
• Bidders who submit fraudulent, late or incomplete bids are not disqualified.
• Anonymity of bidders is not properly guarded.
• Rankings change after a supervisor or high-ranking official becomes involved in the process.
• Different versions of the bid evaluation are present.
• Process is tightly controlled by a small group.
• Bidding process or evaluation times are extended without justification.
• Open-bidding meeting:
  ➢ There is a failure to keep comprehensive written minutes, have minutes signed by all parties or release minutes without a delay.
  ➢ Discounts are not announced with bid disclosures.
  ➢ Some envelopes containing bids appear marked (small folds, tears).
  ➢ The location changes at the last minute without proper notice.
• Rebidding:
  ➢ Same ranking order is established as in the original bid.
  ➢ Bidders make significant price changes.
  ➢ Bidders withdraw rather than rebid.
  ➢ Due to alleged time constraints, a rebid is done in “snap” format.

8. **Regarding chosen bid**
• The cost of the awarded bid is high relative to that paid by other procurers.
• The contract is not awarded to the lowest qualified bidder.
• Losing or withdrawn bidders become subcontractors.
• Winning bidder is unknown, unqualified or without a track record.
• The initial choice of a vendor is overruled by the IP compliant PSUs or withdraws by itself.
• A price discount makes a bidder with a high price estimate into the winning bidder (particularly if the discount makes the budget very close to Principal’s estimate or is not initially disclosed).
• Members of the bid evaluation committee do not have proper expertise to comprehensively evaluate bids.
Execution Stage

9. Regarding the post-award contract

- Long delays occur during the contract execution.
- A change in price or order follows the selection of a bidder.
- Penalty clause and thorough project oversight is excluded from contract.
- Contract includes allowances for variations not in the bidding documents.
- The bid and contract contain significant dissimilarities: amount, name, etc.
- Subcontracting requirements are imposed on bidder after selection (rather than stipulated in the invitation to tender).
- Excessive or unjustified number of signatures needed for various payments or changes (thus lessening individual accountability).
- Post tender modifications.
- Extra Items: Need and systems of determining rates.
- Variations: No safeguard taken through conditions, procedures and close internal scrutiny.
- Hidden items not easily capable of being inspected: Such as earth work, grouting, river dredging etc to be red flagged as quantum not verifiable after execution.
- Materials Consumption: No adequate authentic documentation of purchase, stock keeping & consumption giving complete trail for ensuring execution as per specifications.

10. During implementation

- Site tests or inspections are refused or delayed.
- Significant user complaints or other indications of poor quality of work are detected (e.g. missing or poor quality material).
- Bills are poorly collected or lost.
- Supervisors are provided with vague or oral (rather than written) responsibilities and instructions.
- Supervisors frequently change.
- Contractual verification procedures of work progress are not enacted.
- Invoices are vague or amounts appear inflated.
- There are incomplete records, such as a large number of missing documents, few site visits/reviews or no recorded contractor performance.
• Change orders to the contract are frequent (often small amounts) and accepted by site engineer rather than seeking supervisor’s approval.

• The most economically priced brands included in the contract are not used.

• Project updates and reviews include repetition, errors or photocopies of bidding documents in “as-built” drawings.

• Cost increases/overruns are not adequately explained.

• Proper coordination between different wings like design, planning, execution etc with proper accountability responsibilities for coordination.

11. Regarding personnel

• Poor performing employees are transferred into positions that appear to have a greater opportunity for corruption (e.g. more discretionary spending).

• Funds are awarded for “project supervisor”, subcontractor or middleman with vague, repetitive or unnecessary responsibilities.

• Key employee or supervisor never takes leave or vacation during procurement processes.

• Members of Principal and bidders have close personal or professional relationships.

• Nominated consultant staff members are replaced with less qualified or experienced personnel.

• Project officials live beyond their means.

• Subjective parts of recruitment or promotion (e.g. interview) in the decision process are given inflated importance.

• The same staff members are involved in award decision and contract supervision.

• Supervising duties and financial oversight are not separated.

• Decisions to be taken at higher level are not within time frame. Accountability at higher levels for time bound decision making.

• Approvals invariably are sought as a formality. These should be prior with opportunity for application of mind by concerned authority/group.

How to Submit an Examination Report

After conducting an examination, either general or regarding a specific complaint or irregularity, the IEMs should submit a detailed examination report. This report should cover the following:
a. Preliminary estimate, administrative approval and expenditure sanction, vetting of demands, checking of specification, etc. in respect of contract.

b. Detailed estimate, technical sanction.

c. Appointment of consultant.

d. Prequalification of bidders.

e. Call of tenders and award of work agreement.

f. Inspection, dispatch and acceptance of materials.

g. Scrutiny of bills and supporting documents.

h. Scrutiny of site records.

i. Site inspection.

j. Interviews of relevant persons.

This report should call attention to irregularities found in any of these or other areas. It can also suggest preventive measures to safeguard against future malpractice or corruption and correct loopholes in the procedures/rules.

This report should be shared with the Chief Executive or relevant head for reply and action. It may be shared with the CVO or CVC for vigilance review or action, or to advocate a thorough investigation in the case of serious irregularities.

**Advice to Procurement Officials**

Irregularities and “red flags” during procurement can commonly occur not as a result of corruption but rather of a lack of expertise or limited resources. As such, managers and executives might not be aware that they are engaging in practices that foster an inefficient or corrupt work environment.

When reporting to such officials, IEMs should offer advice regarding steps the officials can personally take to bolster a corruption-free image for their companies.
Manual for
The Examination of
Public Procurement
Process

E-Procurement

TRANSPARENCY
INTERNATIONAL INDIA
E-Procurement

BACKGROUND

A few years ago, e-Procurement started emerging as a new method for Government tendering using the Internet.

While e-Procurement has some obvious advantages such as savings in time and cost, reach etc, and should definitely be encouraged, it should be done only after taking into full consideration the concerns relating to – ‘Security’ (including prevention of Cyber Crime and related Forensics) and ‘Transparency’ of the process, so that under the garb of technology, new and more powerful methods of manipulation are not unleashed.

Since 2007, TII became concerned on the following issues relating to e-Procurement:

- e-Procurement was a new technology globally. In the early part of the previous decade, some service providers in India had started rendering e-Procurement services to Government organizations. The surprising part was that there were no Government regulations or Guidelines on how e-Procurement was to be conducted without compromising security and transparency. A sensitive activity like Government procurement being conducted without any security related regulation was obviously unpalatable.

- There were many negative press-reports about flawed e-Procurement systems.

- Two most critical aspects of the Government tendering process are –
  
  (a) Maintaining the confidentiality of each bid till the bid is opened publicly and transparently in a Public Tender Opening Event.

  (b) Conducting the Public Tender Opening Event in the most transparent manner in the presence of all the bidders. Transparency International believes in creating ‘systems’ to increase transparency and check corruption. TII has prepared the ‘e-Procurement Integrity Matrix’ for the CVC to help the government create an effective system for ensuring security and transparency in e-Procurement.

  The e-Procurement Integrity Matrix can be accessed from TII’s site: [http://www.transparencyindia.org/integrity_matrix.php](http://www.transparencyindia.org/integrity_matrix.php)

- The e-Procurement Integrity Matrix was independently validated by a team of Internet-security experts setup under a member of the Vigilance Advisory Council of the CVC.
DIT’s e-Procurement Guidelines dated 31st August 2011

On 31st August 2011, the Department of Information Technology (DIT), Ministry of Information Technology, Government of India, issued a detailed set of guidelines on e-Procurement, named ‘Guidelines for Compliance to Quality Requirements of e-Procurement Systems’. These guidelines have taken inputs from the ‘e-Procurement Integrity Matrix’ of TII, as well as, some other independent inputs including international sources. The DIT-Guidelines include ---- relevant guidelines of the CVC, GFR-2005, and the IT Act 2000 (and its amendment 2008)

These guidelines are also referred to as ‘DIT’s e-Procurement Guidelines dated 31st August, 2011’. In this manual, for brevity these guidelines are also referred to as ‘DIT-Guidelines’. It is understood that DIT-Guidelines are the most comprehensive and demanding guidelines on e-Procurement compiled anywhere in the world.

DIT’s e-Procurement Guidelines can be accessed from the URL:


A copy of an amendment to the DIT Guidelines is attached as Annexure-V of this document.

Mandatory Adoption of E-Procurement

Vide its Office Memorandum dated 30th March 2012, the Finance Ministry of the Government of India has made ‘comprehensive end-to-end e-Procurement’ mandatory for all ‘Ministries/ Departments of the Central Government, their attached and subordinate offices, Central Public Sector Enterprises, and autonomous/statutory bodies’. All “procurements with estimated value of Rs 10 lakhs or more” are to be processed through e-Procurement in a phased manner.

Certification for Compliance with DIT-Guidelines to be done by STQC

The CVC vide its circular (No. 01/01/2012) dated 12th January 2012, and the Finance Ministry vide its Office Memorandum (No. 10/3/2012-PPC) dated 3rd September 2012 have communicated that testing of all e-Procurement solutions, software, systems (developed by any vendor, including that developed by NIC) have to be certified by STQC, Department of Information Technology for compliance with ‘Guidelines for Compliance to Quality Requirements of e-Procurement Systems’ dated 31st August 2011’ issued by Department of Information Technology (DIT), Ministry of Information Technology, Government of India.

Copies of the above mentioned communications from the CVC and the Finance Ministry are appended as Annexure-VI and Annexure-VII respectively.

A word of CAUTION : It is well known that in India we sometimes make very good laws and rules, but fail to enforce them properly, or vested interests dilute the laws and rules in a manner which makes the laws/ rules merely an eye-wash. We have to be
vigilant that the same fate does not befall DIT’s e-Procurement Guidelines dated 31st August 2011, and its certification process, and that the DIT-Guidelines will be implemented in letter and spirit, so that India becomes a beacon to the rest of the world on how secure and transparent e-Procurement is to be done.

**Summary of Red Flags in E-Procurement**

**Red Flag No.1** In most e-Procurement systems, the ‘Bids-Sealing/Bid-encryption’ methodology is poor/ flawed.

Specifically, where PKI is used for bid-encryption, clandestine copies of bids can be stolen through spyware and secretly decrypted before the Online Public Tender Opening Event, resulting in compromise of confidentiality. Similarly, confidentiality can be compromised where the ‘main bid-encryption’ is done at database level, and only SSL encryption is done during the transit phase from bidder’s system to the e-Procurement portal.

[Reference of corresponding sections of DIT Guidelines dated 31st August 2011: Mainly Annexure-I (section 2.0, and section 3.0). In addition, some parts of sections like 1.2, 3.1, etc and relevant portions of Annexure-II, III, IV also have relationship with these issues]

**Red Flag No.2** In most e-Procurement systems, instead of ‘Online Public Tender Opening Event’, there is only a rudimentary ‘Online Tender Opening’.

Merely opening bids ‘online’, and then separately making them available for display to the bidders subsequently from a different location/ screen (i.e. user interface) without the simultaneous online presence of bidders, does not fulfill the requirements of a proper and transparent online Public TOE. The transparency related significance of opening bids in ‘Public’, and carrying out various activities such as ‘countersigning’ of each opened bid by the TOE-officers in the simultaneous presence of the bidders has been very questionably done away with in such systems. e-Procurement systems where online TOE is conducted in this non-transparent fashion, without the simultaneous online presence of the bidders, gives rise to the possibility of bid-data tampering.

[Reference of corresponding sections of DIT Guidelines dated 31st August 2011: Mainly Annexure-I (section 6.3), and also relevant portions in other sections of Annexure-I. In addition, relevant portions of Annexure-II, III, IV also have relationship with these issues]

**Red Flag No.3** Most e-procurement systems, do not have the functionality to accept ‘encrypted (i.e. sealed) detailed bids’.

Some systems ‘do not encrypt the technical bid at all’, i.e. neither the electronic template of the technical bid, nor the detailed technical bid. In such systems, typically ‘only summarized financial data in electronic templates’ is encrypted. This is against the established practices of ensuring confidentiality of technical bids.
Many e-Procurement systems do not have the functionality for digital signing of important electronic records which are part of the e-procurement application. As a result of the above mentioned deficiency, such e-Procurement systems are not in full compliance of the IT Act 2000, and certain guidelines of the CVC.

In most e-Procurement systems, functionality of the e-tendering system is limited [e.g. all types of bidding methodologies are not supported]

Instead of supporting various kinds of commonly used bidding methodologies, in some deficient/partial systems, only ‘single-stage-single-envelope’ bidding is supported. Similarly many systems do not support the submission of ‘supplementary bids (viz modification, substitution and withdrawal)’ after final submission, but before elapse of deadline for submission]. This is against the established practices of manual tendering where different kinds of accepted bidding-methodologies are used appropriate to the situation.

‘Entry Barriers’ are being created in many RFPs for e-Procurement, on the entry of new players on the basis of ‘unjustified eligibility criteria’, and by insisting on ‘irrelevant experience’.

CAUTION: It must not be forgotten that e-Procurement is an emerging technology, and if entry barriers are created, apart from discouraging competition, the Government will NOT HAVE the BENEFIT of BETTER and more RELIABLE e-Procurement systems. Furthermore, experience of tenders conducted using ‘rudimentary e-Procurement software’ would not only be irrelevant but MISLEADING.
Red Flag No.7  Many e-Procurement systems are such that it results in abdication of powers of the relevant officers of the Government Purchase department.

Furthermore, in some situations it results in handing over the private-keys (PKI) of the concerned officers to others, which is a violation of s-42(1) of the IT Act.

[Reference of corresponding sections of DIT Guidelines dated 31st August 2011: Mainly Annexure-I (section 5.), and also relevant portions in other sections of Annexure-I. In addition, some parts of sections like 4.1 etc, and relevant portions of Annexure- II, III, IV also have relationship with these issues]

Red Flag No.8  Backdoor Entry through ERP Route:

Many large PSUs have gone in for e-Procurement solutions by either ‘extending the scope of the original contracted ERP modules’ (mostly on single-tender basis, in spite of being large value contracts, and in spite of there being a number of ERP suppliers), or buying e-Procurement modules from a ‘specific ERP vendor’ under a questionable DGS&D Rate Contract (Note: This rate contract was subsequently suspended, but PSUs/ Governmental organizations which had gone ahead with it, say they are not affected). In doing this, they have by-passed various ‘security and transparency related guidelines of e-Procurement’, as well as, ‘fairness and transparency related norms of public procurement’.

Red Flag No.9  There is lack of clarity about where e-Reverse Auction is to be used.

It is obvious that the Government does intend to replace sealed-bid tendering with e-reverse auction. Also there are guidelines about ‘not negotiating’ after the financial bids are opened, except possibly with L1 (which is contrary to the concept of reverse auction). At the same time, reverse-auction could be useful in some situations, e.g. commodity purchases. In such a scenario it is important to clarify where reverse auction can be resorted to.

[Reference of corresponding sections of DIT Guidelines dated 31st August 2011: While there is indirect mention of this in Annexure-I [section 2.0 (iv)] and Annexure-II, essentially the required clarity has not been provided]

TII’s active-member, Jitendra Kohli, had been invited in his individual capacity to present a paper at the International Public Procurement Conference (IPPC5) held in August 2012 at Seattle (USA). His paper titled, ‘Red Flags in e-Procurement/ e-Tendering for Public Procurement and some Remedial Measures’, was acknowledged as an ‘eye-opener’ by delegates from many countries, including USA and EU, and gives an international perspective of the e-procurement related red flags. The paper can be accessed from the URL:


A copy of the paper is also attached here as Annexure-VIII.
E-PROCUREMENT AND THE ROLE of IEMs

From the perspective of IEMs, broadly there are three scenarios as far as e-Procurement is concerned:

(Scenario-1: The Principal has not yet adopted e-Procurement, or is doing so only for appearances)

In this scenario, the IEM can urge the Principal to adopt e-Procurement for all tenders of estimated value Rupees ten lakhs and above, as per the Office Memorandum dated 30th March 2012 of the Finance Ministry.

(Scenario-2: The Principal is already using some e-Procurement Software or Services from an e-Procurement Service Provider)

In this scenario, the IEM should ensure the e-Procurement software application (or solution)/ system has been duly certified by STQC, Department of Information Technology (DIT) for ‘full compliance’ with DIT’s e-Procurement Guidelines dated 31st August 2011. If not, The IEM should urge the Principal to use an e-Procurement software, or service provider, which has such compliance certification from STQC.

CAUTION : STQC does a variety of testing and certification. The IEM should confirm that the certificate furnished by the e-Procurement software provider (or service provider) is for specific compliance, and full compliance, with ‘DIT’s e-Procurement Guidelines dated 31st August 2011’. Also, currently no other agency (including any agency affiliated to or recognized by STQC) is authorized to issue such a compliance certification other than three specified offices of STQC.

The IEM should also ascertain that no comment has been made in the above mentioned STQC certificate (or the corresponding Report) which in anyway implies compromise or dilution of security or transparency of the e-Procurement process, especially aspects relating to bid-encryption (i.e. the equivalent of bid-sealing), and the public online tender opening event. Some comments made in this regard in Scenario-3 below, are also relevant for Scenario-2.

Furthermore, the IEM should be especially careful where the e-Procurement functionality is being offered as part of an ERP system being used by the Principal (Please refer Red-Flag No. 8 above). DIT-Guidelines for e-Procurement systems are independent of whether the Principal uses an ERP system or not. Using an ERP system cannot be an excuse for diluting the requirements relating to e-Procurement. As on February 2013, no ERP system has an e-Procurement module which is fully compliant with DIT-Guidelines. Under these circumstances, the Principal should be advised to either ensure that the ERP vendor becomes fully compliant with DIT-Guidelines at the earliest, or independently procure an e-Procurement software/ system which is fully compliant with DIT-Guidelines. After this, if required, this independent e-Procurement system can then be integrated to the Principal’s ERP system. The IEM should also ensure that where integration is required, the ERP vendor is equally obliged to
Participate and cooperate in the integration process, as the e-Procurement vendor.

(Scenario-3: The Principal is inviting bids for e-Procurement Software or Services from an e-Procurement Service Provider)

In this scenario, the IEM should ensure that the EOI/RFP being floated by the Principal for e-Procurement Software/Services should have been drafted keeping in view the letter and spirit of DIT’s Guidelines for e-Procurement dated 31st August 2011.

In other words, the ‘Technical/Functional Specifications’ and ‘Eligibility Criteria’ of the RFP should comply with DIT-Guidelines. The IEM should keep in mind that e-Procurement being a new area globally, the existing knowledge-base within the procuring-entity (i.e. the Principal) may be very limited. Also, the ‘professional consulting firms’ have limited knowledge in this area, as till now they are not known to have involved themselves in any original Research & Development in this field. Copying old tender-documents or RFPs for e-Procurement services (and using these as reference for creating new ones with some editing) would not be of much help, as most of the earlier/existing e-Procurement systems require major re-engineering/overhaul to plug the security loopholes and deficient functionality of these systems.

‘DIT’s e-Procurement Guidelines dated 31st August 2011’ should therefore serve as a beacon. These e-Procurement guidelines of DIT also encompass the relevant guidelines issued by the Central Vigilance Commission (CVC) in the years 2009 and 2010, the requirements of the General Financial Rules (GFR) of the Government of India, and the IT Act 2000 (and its amendment 2008).

While the procuring entity is ultimately responsible for framing the technical functional specifications and the eligibility criteria, some salient aspects are being summarized below for the benefit of the IEMs. These aspects can be kept in view by the Principal while drafting their RFPs for e-Procurement software/services.

Eligibility Criteria/Experience/Technical Requirements:

In this context, some relevant prescriptions of ‘DIT’s e-Procurement Guidelines dated 31st August 2011’ are as follows:

(Ref: Annexure-I, section-8 of the Guidelines)

QUOTE: References may be given of various clients who have used the e tendering/e-Procurement software before the date of submission of bids. Such references should state whether or not the e Tendering software supplied to each reference client was capable of handling each of the following requirements: composite technical & financial bids (single stage single envelope); technical and financial bids in separate envelopes (single stage two envelope); single stage-two envelope preceded by pre qualification; and various security and transparency related concerns outlined in this Annexure I, Annexure II (which is based on CVC Guidelines) of the DIT Guidelines. The solution should be assessed in respect of various security and transparency related concerns outlined in these Guidelines, and its scope of Capability should be in public.
domain, i.e. the functionality claimed should have references. This will discourage monopolizing a particular vendor and solution and will encourage new entrants from offering such systems thereby affecting the competitiveness of procurement of systems. To encourage new entrants, while there should be no compromise on security, transparency and crucial functionality related concerns highlighted herein, the eligibility criteria in respect of ‘number of tenders’, ‘revenue criteria from e procurement’, etc should be minimum. UNQUOTE

Keeping in view Annexure-I (section 8) the DIT Guidelines, the requirements relating to Eligibility Criteria, Experience, Technical Requirements could be drafted on the following lines:

1. The e-Procurement software which is being delivered to the Principal organization (or being used by the e-procurement service provider for offering e-Procurement services to the Principal) should have been duly certified by STQC for full compliance with DIT’s e-Procurement Guidelines dated 31st August 2011.

In addition, the server and the hosting infrastructure of the e-Procurement service provider should also have been certified by STQC for compliance with DIT’s e-Procurement Guidelines dated 31st August 2011.

2. References should be given of various clients who have used the e tendering/ e-Procurement software before the date of submission of bids. Such references should state whether or not the e tendering software supplied to each reference client was capable of handling each of the following requirements: composite technical & financial bids (single stage single envelope); technical and financial bids in separate envelopes (single stage two envelope); single stage two envelope preceded by pre qualification; and various security and transparency related concerns outlined in DIT’s e-Procurement Guidelines dated 31st August 2011 [Annexure I, Annexure II (which is based on CVC Guidelines)].

3. While it is for the Principal to decide about the reasonable experience of ‘number of tenders’ for the eligibility criteria, it cannot be a large number if the DIT-Guidelines are to be complied with. More importantly, whatever be the ‘number of tenders’ which are specified, these tenders (being referred to for the Eligibility/ Experience Criteria) should have been conducted using e-procurement software whose functionality is compliant with DIT’s e-Procurement Guidelines dated 31st August 2011, especially with regard to Bid-Encryption [Ref: Annexure-I (sections 2,3,4) of DIT’s e-Procurement Guidelines dated 31st August 2011] and Online Public Tender Opening Event [Ref: Annexure-I (section 6.3) of DIT’s e-Procurement Guidelines dated 31st August 2011]. Keeping this in view, it is for the Principal to decide whether the reasonable ‘number of tenders’ is – 2, or 10, or 20, or 50, or 100. It certainly cannot be very high. Also, the solution/ software offered should have been used for these ‘number of tenders’ conducted for a Govt of India PSU or Department or State Government after 31st August 2011.
4. For greater assurance of the officers of the Principal in respect of functionality of the e-Procurement software/ system, before the award of contract to the e-Procurement vendor, the following requirement may be given:

‘Demo’ of the offered software should be given to the purchasing entity (i.e. the Principal) by the e-Procurement software/ services vendor at the technical qualification stage to check if the software is compliant with DIT’s e-Procurement Guidelines dated 31st August 2011. Specifically, the purchasing entity will confirm that the Bid-Encryption [Ref: Annexure-I (sections 2, 3, 4) of DIT’s e-Procurement Guidelines dated 31st August 2011] and Online Public Tender Opening Event [Ref: Annexure-I (section 6.3) of DIT’s e-Procurement Guidelines dated 31st August 2011] are in full compliance with the Guidelines. Only those bidders whose software is compliant with the guidelines (and the same software has been offered to the references also) will be considered eligible for Financial Bid opening.

These aspects are elaborated below:

A few key Technical/ Functional Specifications to be checked during the Demo to ensure – ‘Security’ (including prevention of Cyber Crime) and ‘Transparency’:

A. [Bid-Sealing (i.e. Bid Encryption]):

Bids should be securely sealed electronically (i.e. encrypted) at bidder-end, before submission to the e-Procurement portal. Encryption should be done with symmetric or asymmetric keys as outlined in DIT’s e-Procurement Guidelines dated 31st August 2011. Vendors offering e-procurement software using symmetric encryption must give detailed explanation of how they are addressing points given in Annexure-I (section 4) of DIT’s e-Procurement guidelines; and vendors offering e-Procurement software using asymmetric encryption must give detailed explanation of how they are addressing points given in Annexure-I (section 2) of DIT’s e-Procurement Guidelines dated 31st August 2011. Please note that DIT’s e-Procurement Guidelines do NOT allow e-Procurement systems where only SSL encryption is done at the bidder-end, and final encryption of bids is done at the database level.

In case of asymmetric encryption, the security related concerns are many and not easy to address. Hence extra care must be taken in the case of asymmetric-encryption to check whether some remedies hinted in the DIT-Guidelines such as key-splitting and multiple-encryptions have been implemented, and if so whether the implementation is legal and practical at the field level, and whether as a consequence other related concerns such as — ‘encryption of the detailed bid’, ‘problems due to absence of the TOE officer (whose key has been used for encryption in this scenario) during the online public TOE’ have also been resolved, or whether these issues have got further complicated.

NOTE: The explanations given by the vendors should be verified by the procuring Entity (i.e. the Principal) at the time of technical bid evaluation (i.e. before opening
the financial bids), and backed up with ‘specific compliance certificate from STQC’.

B. [Ensuring Security (i.e. Non-Tampering) of Important Tendering related Electronic records (i.e. Documents/ Postings)]:

In accordance with Annexure-I (sections 6.1, 6.2) of the DIT’s e-Procurement Guidelines, the RFP should clearly specify that – All important/ sensitive electronic records should be digitally signed by the concerned authorized users, with facility also provided for verification of such digital signatures by the recipient/ person viewing the record. Such digital-signing of electronic records should encompass:

- All bid-submission related documents such as — electronic-forms/ templates, detailed bids for each bid-part, modification-bid, substitution-bid, withdrawal-bid, signed-copy of tender documents
- Submission of queries/ clarifications to tender-documents by prospective bidders and corresponding response of the procuring-entity
- Tender Notice and its Amendments (i.e. Corrigenda) posted by the procuring-entity
- Tender-Documents and its Amendments (i.e. Addenda) uploaded by the procuring entity
- The authorized tender-opening officers digitally signing (i.e. counter-signing) copies of all opened bids during online public tender opening event (online public TOE) in the simultaneous online presence of participating bidders, minutes of the online public TOE, et al.

C. Public Online Tender Opening Event:

A properly conducted Public Tender Opening Event (TOE) is the backbone of transparency in public procurement. The e-Procurement system should have a corresponding online event in the simultaneous online presence of bidders without compromising any aspect of security and transparency. It should be clearly understood that ‘merely opening bids online is NOT the same as having a proper Online Public Tender Opening Event’.

In accordance with Annexure-I (sections 6.3) of the DIT’s e-Procurement Guidelines, the RFP should clearly specify that – It must be ensured that e tendering/ e Procurement has comprehensive functionality for a transparent Public Online Tender Opening Event (Public OTOE). Well established practices of manual tender opening (with legal and transparency related significance) should have corresponding electronic equivalents for transparent e tendering/ e Procurement.

Some relevant processes of a fair and transparent online public TOE should include:

1. Opening of the bids in the simultaneous online presence of the bidders with proper online attendance record of the authorized representatives of the bidders. Merely
opening bids online, and then subsequently displaying some results to the bidders does not fulfill the requirements of a transparent Online Public Tender Opening Event

2. Security Checks to assure bidders of non tampering of their bids, et al during the online TOE itself

3. One by one opening of the sealed bids in the simultaneous online presence of the bidders

4. Online verification of the digital signatures of bidders affixed to their respective bids

5. Reading out, i.e. allowing bidders to download the electronic version of the salient points of each opened bid (opened in the simultaneous online presence of the bidders)

6. There should be a procedure for seeking clarifications by the TOE officers during online Public TOE from a bidder in the online presence of other bidders, and recording such clarifications

7. Digital counter signing (by all the tender opening officers) of each opened bid, in the simultaneous online presence of all participating bidders.

8. Preparation of the ‘Minutes of the Tender Opening Event’ and its signing by the concerned officers in the simultaneous online presence of the bidders. While bidders should be welcome to be present physically during the TOE, it should not be mandatory for them to do so. All the above should be achieved online in a user-friendly manner.

NOTES:

• As soon as a bid is opened, participating bidders should be able to simultaneously download the salient points (i.e. the summary information) of the opened bid

• Where a bid is to be returned unopened (as in manual process), keeping in view the nature of the internet such bids may be archived unopened

• In cases where some bidders have bid offline (i.e. manually), and this has been allowed by the procuring entity, then the following should be ensured:

    That the offline bids are opened first and their salient points entered into the e-procurement system before the online bids are opened. This is all done in the presence of the online bidders who are simultaneously witnessing this exercise. The compiled/integrated data of both the online and offline bidders should be made available in the form of an online comparison chart to all the participants.
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No. 14(12)/2008-E.II(A)
Government of India
Ministry of Finance
Department of Expenditure

New Delhi, dated the 20th July, 2011.

OFFICE MEMORANDUM

Subject: Use of Integrity Pact by Public Sector Undertakings (PSUs) – Implementation of ARC Recommendation – regarding

The Administrative Reforms Commission in its report titled ‘Ethics in Governance’ had made the following recommendation in relation to Integrity Pacts:

“The Commission recommends encouragement of the mechanism of ‘Integrity Pacts. The Ministry of Finance may constitute a Task Force with representative from Ministry of Law and Personnel to identify the type of transactions requiring such Pacts and to provide for a protocol for entering into such a pact. The Task Force may, in particular, recommend whether any amendment in the existing legal framework like the Indian Contract Act, and the Prevention of Corruption Act is required to make such agreements enforceable’.

Accordingly, a Task Force was constituted in the Ministry of Finance with representatives of Ministries of Law and Defence and Department of Personnel & Training. After examining the recommendations of the Task Force it has been decided that:

(i) All Government Ministries/Departments, including their attached/subordinate offices, may use the generally applicable Integrity Pact as at Annexure in their procurement transactions/contracts with suitable changes specific to the situation in which the Pact is to be used.

(ii) Ministries/Departments may, in consultation with the respective Financial Adviser and with the approval of the Minister-in-charge, decide on and lay down the nature of procurements/contracts and the threshold value above which the Integrity Pact would be used in respect of procurement transactions/contracts concluded by them or their attached/subordinate offices. This activity should be completed by 31st August, 2011.

(iii) The provision for the Integrity Pact should be included in all Requests for Proposal/Tender Documents issued in future in respect of the procurements/contracts that meet the criteria decided in terms of (ii) above.

(iv) The aforesaid provisions may also be applied to procurements made by autonomous bodies for which also the concerned administrative Ministry/Department may lay down the nature of procurements/contracts and the threshold value above which the Integrity Pact would be used.

3. Instructions have been issued for use of the Integrity Pact in Government Ministries/Departments (Copy of O.M. of even No. dated 19.7.2011 is enclosed). It is requested that similar instructions may be issued for the use of the generally applicable Integrity Pact by Public Sector Undertakings (PSUs). It may be mentioned that in the context of the use of the Integrity Pact by PSUs, the Task Force has, inter-alia, recommended that ‘as the title page of the said Pact is in the name of the President of India, PSUs may change the title page suitably.

(R. Prem Anand)

Under Secretary to the Government of India

Secretary,
Department of Public Enterprises
Udyog Bhavan, New Delhi.
OFFICE MEMORANDUM

Subject: Use of Integrity Pact by Public Sector Undertakings (PSUs) – Implementation of ARC Recommendation – regarding.

The undersigned is directed to refer to the Department of Expenditure OM No. 14(12)/2008-E.II(A) dated 20.07.2011 (copy enclosed) on the above mentioned subject and to state as under

(i) All CPSEs will enter into Integrity Pact in the form enclosed as Annexure in their procurement transactions/contracts with suitable changes specific to the situations in which the pact is to be used.

(ii) CPSEs in consultation with the Financial Advisers of the concerned administrative Ministries shall decide and lay down the nature of procurements/contracts and the threshold value above which the Integrity Pact would be used in respect of procurement transactions/contracts concluded by them. This activity should be completed by 30th Sept, 2011.

(iii) As the title page of the said Pact is in the name of the President of India, CPSEs may change the title page suitably for their use.

2. This issues with the approval of Minister (HI&PE).

Encl: As above.

V. K. Jindal
Director
Tel: 24362770

To:
CMDs of All CPSEs.

Copy to: Deptt of Expenditure (Kind Attention: Shri R. Prem Anand) w.r.t. their OM No. 14(12)/2008-E.II(A) dated 20.07.11.
Frequently Asked Question: Independent External Monitors

Do IEMs have pre-emptive investigative authority or do they act solely as judges?
While IEMs are charged with judging the legitimacy of complaints brought to them by bidders or the Principal, this should not be their only role. IEMs, as monitors, have investigative power and can pursue their own suspicions without the lodging of a complaint by any separate party.

How should complainants direct their concerns to an IEM?
While this will differ between IPs, there are a few principles to which to adhere. To avoid tampering or breaching of confidentiality, complainants should be able to submit their concerns to the IEM directly, rather than through the PSU or other middlemen. Using email with an auto-reply function can help in assuring the complaint arrives in its original format. The home addresses of IEMs should generally not be included in order to protect the privacy of an IEM.

Should the IP be re-signed with each tender?
Those involved in the IP process have found it necessary for the IP to be re-signed with each tender, as the employees of vendors and PSUs frequently change, as do the details of tenders, and re-signing the contract will ensure that all actors are devoted to a transparent and corruption-free process.

Why have no vendors or third parties directed complaints to the IEM?
There are a number of reasons this could be the case. The most optimistic, of course, is that the vendors all perceive the process to be legitimate. However, this could also be a “red flag” that vendors are colluding amongst each other.

A common reason for a lack of complaints has nothing to do with corruption: sometimes vendors are not aware of, do not understand, or are unsure if they can trust IEMs. The IEM should work to ensure that all parties are educated about the role, importance, and accessibility of the IEM, and should act in an open and honest way such to encourage trust with all the members of an IP.

Should an IEM receive technical assistance/consultation from experts?
This will vary on a case-to-case basis. Sometimes IEMs may feel that they have sufficient expertise and knowledge to investigate a complaint. If a complaint pertains to a technical area in which the IEMs do not feel appropriately knowledgeable, they are encouraged to consult experts in the field, including technical officers at the CVC.

Can an IEM use the RTI Act 2005 when investigating a charge of corruption?
Any party in the procurement process is welcome to use RTI if they feel that another party is concealing relevant documents or corrupt practices, including the IEM.

How does the IEM stand relative to the CVO and CVC?
The IEM is not a replacement of either, but works to expedite the procurement process by quickly and efficiently dealing with corruption complaints in a non-legally binding matter. The CVO of an organization can separately review complaints being investigated by an IEM (following the provisions of the CVC Act or Vigilance Manual). The CVC can likewise simultaneously examine a case. If appropriate, the IEM can refer matters to either the CVO or CVC to have them judged by a body with the power to issue legally binding directives.
FEEDBACK FROM THE STAKEHOLDERS

Mr. M.B. Sagar, CVO – The Shipping Corporation of India:

1. Whilst registration of the vendors in supplier relation management (SRM) of e-procurement, it should be ensured that the details/photos of owners/partners/directors/chairman/office bearers and all those official/s who are connected with SCI transactions/dealings, are uploaded in the SRM module by the vendor. All these details are to be maintained in the data bank.

2. It is understood that the proceedings of pre bid meeting and TPC meetings are being uploaded in the C-folder of the concerned RFx (Tender document), it is recommended for videoing of these proceedings and may be uploaded in the C-folder for reference of all concerned.

3. It is recommended to have CCTV surveillance at all sensitive and strategic areas/locations, where there is an interaction between the PSU officials and the vendor/suppliers.

Shri N Gopalaswami and Shri R. C. Agarwal, IEM – OIL:

1. A strong effort at Vendor Development is the need of the hour. There is a need to design a special campaign by the PSU to promote the participants which consequently increases competition and value for money.

2. A careful re-appraisal should be done on all Proprietary items in order to reduce the number; as such items in many cases are likely to be a burden to the company.

3. The processing time involved between the receipt and finalization of tenders needs to be streamlined. It is possible that in cases where specialized equipments are needed, the processing of tenders might take time. Notwithstanding that, that there can be no excuse not to finalize any tender, even in the cases of complicated equipments, in a period of 6 months.

4. If the average processing period is high, learning by the experience, the vendors would mark-up their prices so that they are not caught unawares when repeated extensions of validity are sought by the company, since failure to extend the validity would throw the vendor out of competition.

5. We are of the view that it should be mandated that any tender should have only a maximum of 6 months for finalization, failing which, extension of validity will automatically mean that the tenderers will be allowed to increase their prices based on a formulae that takes into consideration the effect of the inflation and the increase in cost of inputs. Simultaneously it should also entail administrative action against the officials concerned with the evaluation of the tender for their failure to adhere to the time of 6 months for finalizing the tender. Unless this is enforced, it would not be possible for the company to get value for the money and to increase the competition. Many smaller, but efficient vendors may be deterred from quoting if the processing period is very high and they do not have deep pockets to absorb any increase in cost of inputs that is inevitable when inordinate time is taken in processing the tender as a result of the inflation and other issues.
Shri S.K. Singh, CVO – IOCL

1. Towards preventing corruption in any form at any stage/in any aspect of the tender/contract from its inception to execution/implementation, an elaborate system of having an MoU with TII and thereafter signing of an IP has been suggested, to confirm the commitment to transparency and fighting corruption. While the concern is well appreciated, it would be pertinent to mention that bribery/corruption is illegal in India and in case of a PSU, these ethics/values are already enshrined and binding as per various stipulations/guidelines of the government/CVC. As such, signing of any extra agreement for the same purpose shall not only be redundant, it may even give wrong impression that we don’t have such provision in our system. Further, an RTI is also in place in our country to facilitate any information.

2. Positioning of an IEM also appears to overlap and undermine the role, existence and credibility of institutionalized systems of Engineers/Managers/Supervisors/Finance Executives, Internal/External/Government Auditors as well as vigilance, which are already in place in case of PSUs. Therefore, wherever they are felt to be wanting in effectiveness, suggestion(S) may be made for appropriate sensitizing/training/strengthening.

3. The details furnished for transparency and fair/competitive tendering/contracting/procurement more or less already exists in the tender documents of the PSUs. Even provision of arbitration for Out-of Court/speedy settlement of conflicts is part and parcel of the tender/contract documents. Therefore, here again, the role of IEMs as arbitrators may not be required.

4. From various details/checklists furnished, it is also gathered that TII has got fairly good insight into the requirements vis-à-vis deviation in tendering/contract/procurement system in various organizations/PSUs. As such, perhaps it will be befitting for IEMs to take up the role of trainers to sensitize the concerned officials in various organizations/PSUs to ensure fairness and transparency in all dealings, especially at those places where irregularities might be recurring/wide spread. This will be more in line with the mission of TII to lead and support a committed effort to improve transparency and accountability by eradicating corruption through widening of knowledge and catalyzing action.

N.T. Ravindran, A.G.M. – THDC

The role and responsibility of IEM should center around watching compliance of commitments in IP by both the Principal and the Contractors from tendering stage till execution of the contract. However, certain additional roles and responsibilities for IEM, beyond the IP, have been proposed in the Manual. This will serve no useful purpose and tend to only create multiple agencies for the same function. The additional roles and responsibilities, beyond the scope of IP, proposed in the manual tend to overlap with the function of Government Audit, Internal Audit, Statutory Audit and Vigilance.

If a group of IEMs are engaged for a particular company with roles and responsibilities encompassing a very large area in the Manual, there has to be a permanent establishment of IEMs in each organization. It needs to be examined whether this is what is really intended by TII and whether it is workable.

- Keeping minimum no. of IEMs 03 in line with function of Arbitral tribunal may not be required in this case (unlike Arbitral Tribunal) as the role of IEMs is of advisory in nature and final decision is taken by Competent Authority. It should be minimum two as per CVC guidelines and can vary according to the scale of the company / volume of work.
• Ideally IEMs should meet at least once in every three months to review an ongoing tendering process. However, frequency may be increased depending upon the requirement.

• IEMs cannot be treated as public servant without any act or mandatory requirement by Govt. of India.

• IEMs are mainly responsible to ensure that both the parties are playing their roll as per the set norms and if there is any variation / breach of obligations / complaints from either side/outside the same is to be investigated to determine as to whether transgression of transparency has occurred or not. Increasing the role of IEMs into disputes, interpretation, formation of documents from the very beginning etc. may result into delay in processing and finalization of the tenders, besides requirement of adequate office setup with sub-ordinate staff which may add to extra financial burden on PSUs / Govt. Deptt. Such interventions, if made at various stages may dilute the responsibility and accountability in decision making of government officers under the various circumstance though at times it can add value. As such it should be limited to that extent.

To take views/opinion on tender conditions, or any other issues shall be left to the organization responsible for contracting and execution. The views of IEMs on contentious issues if given unsolicited by IEMs can lead to administrative impasse unless otherwise their views are final and binding which of course is not. As such, their role in administrative issues should be limited.

The IEM concept is (of course as developed by TI) a voluntary initiative of the organization to check corruption in Contract Management. As such their roles are defined. The other Govt. checks and Balance Systems have their roles independently. To make IEMs role “all rolled into one” will be too demanding and unmanageable without adequately large setup.
Annexure-V

Amendment to DIT Guidelines

To whomever it may concern

Sub: Amendments in the guidelines for the eProcurement.

Guidelines for Quality requirements for eProcurement system has typographical mistakes. The corrections are as follows

Clause 2.0

iii) Outsourcing Model (Partial outsourcing)  
Read Full instead of Partial

iv) Outsourcing Model (Full outsourcing)  
Read Partial instead of Full

Clause 4.2 Line No. 4  
Read Outsourcing Model 1 & 2 instead of Model 1 & 3

This has approval of competent authority.

Umesh Kumar Nandwani  
(Director)
Annexure-VI

Circular No. 01/01/2012

Sub: Guidelines for compliance to Quality Requirements of e-Procurement Systems.

Ref: Commission’s Circular No.23/06/010 dated 23/06/2010

Commission has been advocating leveraging of technology for activities prone to corruption since 2006 and one of the prominent initiatives was adoption of e-procurement for goods, works and services by all Ministries/Departments/Organisations. Commission advised all Organizations to ensure security of the e-procurement systems and to get their system certified by Department of Information Technology (DIT).

2. DIT in turn requested its attached office STQC (Standardisation, Testing and Quality Certificate) Directorate to establish necessary processes and systems to enable certification of e-Procurement systems. Accordingly, the guidelines prepared by STQC in this regard approved and notified by the DIT is available on e-govstandards website [www.egovstandards.gov.in]. The guidelines are also available on Commission’s website [www.cvc.nic.in] (link-circular/instructions). All the Ministries/Departments/Organisations are advised to use these guidelines for compliance to Quality Requirements for certifying the e-Procurement systems.

To

CVOs of all Ministries/Departments
CVOs of all Public Sector Enterprises
CVOs of all Public Sector Banks/Insurance Companies and Organizations

(Shri Vinod Kumar)
Officer on Special Duty
Office Memorandum

Subject: Compliance of e-procurement Systems with DIT guidelines on Quality requirements

This has reference to this Department’s O.M. of even number dated 30th March 2012 vide which it was conveyed that the Ministries/Departments of the Central Government, their attached and subordinate offices would need to commence e-procurement in respect of all procurements with estimated value of Rs. 10 lakh or more in a phased manner as per the prescribed schedule. Further, option was also given to the procuring entities either to use the e-procurement solution developed by NIC or to continue to carry out e-procurement through other service provider/other e-procurement solutions developed in house, provided the conditions/guidelines envisaged in the O.M. referred to above are fulfilled.

2. One such condition was to ensure that the e-procurement solutions meet the requirements notified by Department of Electronics and Information Technology (DeitY) under the “Guidelines for compliance to Quality requirements of e-procurement Systems” published on the e-Governance Standards Portal (http://egovstandards.gov.in). In this regard, para 4.2 of the DIT Guidelines issued in August 2011 inter alia states that the audit for certification of the entire e-Procurement solution shall be undertaken after its deployment and prior to its usage. Further, CVC circular No. 01/01/2012 dated 12.01.12 also reiterates that DIT/STQC guidelines be used for compliance to “Quality requirements for certifying the e-Procurement Systems”.

3. In this context, in consultation with DeitY, it has been decided that;
   i. Testing of e-Procurement solution will be conducted by Standardization Testing and Quality Certification (STQC) Directorate laboratories at Delhi, Bengaluru & Kolkata.
ii. STQC can be directly contacted by the solution provider for testing/audit. The contact details in STQC for this purpose are available on the website of STQC (www.stqc.gov.in).

iii. e-Procurement solution developed by NIC is also to be certified by STQC.

4. All Ministries/Departments are therefore requested to ensure audit and testing of e-Procurement applications used by them and to obtain compliance certificate in this regard from STQC. Further, necessary instructions in this regard may also be issued to all attached and subordinate offices as well as to CPSE’s, autonomous and statutory bodies under your administrative control.

(Yashashri Shukla)
Director (PPD)
011-23093457

To,

Secretaries of all Ministries/Departments

Copy to:

1. Secretary, Department of Information Technology
2. DG (NIC), CGO Complex, New Delhi

Copy also through e-mail to:

Nodal Officers of all Ministries/Departments
Paper presented at the International Public Procurement Conference (IPPCS), August 2012, at Seattle (USA).

RED FLAGS IN E-PROCUREMENT/ E-TENDERING FOR PUBLIC PROCUREMENT AND SOME REMEDIAL MEASURES

Jitendra Kohli*

ABSTRACT. Essentially, e-Procurement/ e-Tendering is conducting on the internet the equivalent of the manual tendering process, with the ostensible objective of enhancing Transparency and Efficiency of Public Procurement.

While this naturally involves some re-engineering, it is important to ensure that under the pretext of re-engineering and technology, there should be no compromise on the security/ confidentiality, transparency and legal aspects of the well-established public-procurement process. The focus of the paper/ presentation will be on some such critical issues, or red flags, with suggestions for remedial measures.

*Jitendra Kohli, B.Tech. (Electrical Engg) IIT Delhi (India), founder and Managing Director of ElectronicTender, has been researching in the area of e-procurement/ e-tendering with focus on public procurement for over 12-years now. Based on his pioneering work, his company, ElectronicTender has developed an innovative e-procurement/ e-tendering software product with comprehensive security and transparency related features required in government tendering. This product can be licensed for being readily deployed in any country for setting up e-procurement/ e-tendering portals with ‘Nil’ gestation period. His work, ‘e-Procurement Integrity Matrix’ has been adopted and published by Transparency International India (Reference-1). The Government of India’s guidelines for e-procurement (Reference-2) have taken inspiration from his writings on the security and transparency related aspects of e-procurement. His services were recently commissioned by the Asian Development Bank for technical peer-review of the update of MDB’s ‘e-Procurement Toolkit’.
INTRODUCTION

Some Distinctive Aspects of Government Tendering/ Public-Procurement Process: Public procurement constitutes 10% to 20% of the GDP in various countries. In addition to buying at the most economical price, the distinctive and ‘stated-principles’ of public procurement have been to ensure -- Transparency, Fairness and Accountability in the procurement process. Procedures for public-procurement have been developed to implement these stated-principles. Starting with advertising a bidding opportunity in a national-level newspaper for wider publicity, elaborate procedures exist in most countries for activities relating to the tendering process, which inter alia includes processes such as – ‘Signing of each page of the bid by the bidder’ to ensure authenticity, ‘Bid-Sealing’ to ensure confidentiality and independence of each bid, a fair and transparent ‘Public Tender Opening Event’ with its detailed procedures to ensure fair-play, et al.

E-Procurement, an emerging Methodology for Public Procurement: ‘e-Procurement’ or ‘e-Tendering’ is the emerging method for conducting ‘Public Procurement’ using the internet. As the name suggests, an e-procurement system/portal will be accessed through the internet by authorized users of a Buyer organization, as well as, authorized users of different Supplier/ Bidder organizations for conducting various activities relating to the tendering process, ie bid invitation and response process, from the comfort of their respective offices. From Buyer and Supplier perspectives, an end-to-end e-procurement system is expected to offer broad functionality as outlined in Annexure-I of this paper. The depth and quality of implementation of each module may vary in each system, till standards emerge and are followed.

Overall, in terms of adoption and implementation, e-procurement is still in a nascent phase globally. While some countries like India are making e-procurement mandatory for Government procurement above a certain threshold value, many countries, including advanced countries in North America and EU, currently have limited e-procurement implementations for public procurement with rudimentary security features. However, the stated intent in many countries is to encourage e-procurement, as the potential benefits of e-procurement are compelling.

‘Need for Re-engineering’, and ‘Need for Avoiding the Possibility of Cutting Corners on the Pretext of Re-engineering’: With evolving technology, procedures inevitably undergo change. As stated earlier, public procurement involves mammoth public expenditure in every country, and as an unfortunate consequence of this, scams and controversies have been associated with this sensitive area. Therefore, any re-engineering of the public procurement methodology while shifting from the manual tendering methodology to internet-based methodology (ie e-procurement), should be done with adequate due-diligence of the new methodology, and by taking adequate cognizance of loopholes of the new methodology. Specifically, in the process of re-engineering, the stated-principles of public-procurement should not be relegated or cast aside. However, the actual implementations of e-procurement in many countries
are found wanting in this respect.

Benefits of e-Procurement: and some Associated Conditionalities: Undoubtedly, if e-procurement is done with proper security and functionality, it holds enormous potential for enhancing efficiency and transparency in public-procurement internationally, apart from the obvious benefits such as savings in time and cost, wider reach, et al. However, dearth of awareness about the intricacies of e-procurement/ e-tendering, especially aspects relating to ‘Security’ and ‘Transparency’, is resulting in proliferation of e-procurement portals in many countries which have numerous lacunae and pitfalls. In fact, many of the projected benefits of e-procurement are contingent upon the measures adopted in the e-procurement system (especially the e-procurement application software) to ensure security and transparency. A list of ‘Salient Benefits of e-Procurement’ is enclosed as Annexure-II. Needless to state, unless these lacunae and pitfalls are properly addressed with appropriate security and transparency related measures, e-procurement could actually be worse than the traditional manual procurement/ tendering process in respect of preventing manipulation and corruption.

The issues and remedial measures relating to secure e-procurement highlighted in this paper are based on the author’s direct involvement for over twelve years in the process of innovation, original research and development of cutting-edge ‘e-procurement application software’. Another noteworthy aspect is that while there is technical literature available, such as ‘Reference Document-3’, on the elements and tools (such as PKI-based digital signatures, symmetric and asymmetric keys/ tools for data encryption) which go into building an e-procurement application, there is very little detailed literature available on the ‘technical intricacies’ of a ‘secure e-procurement application’. ‘Reference Documents 1 and 2’ are perhaps the most comprehensive documents addressing this need, which are available in public domain. Both these reference documents are inspired from the research and writings of the author. The present paper is another such document.

During the forthcoming IPPC5 conference, the author intends to make a presentation on the same subject with emphasis on a few select ‘Critical Security Issues and Loopholes relating to e-Procurement Web-Application’, which will elucidate some of the issues highlighted in this paper, as well as, set the backdrop for the paper.

OBJECTIVE

The objective of this paper is to highlight in a concise manner a few ‘Security’ and ‘Transparency’ related lacunae or ‘Red Flags’ in e-procurement, so that Government entities which implement e-procurement do so in a proper manner.

Note-1: While some references of legal acts are in respect of India, the main points made under the various ‘Red flags’ would be applicable for all countries.
Note-2: While highlighting the lacunae in the existing e-procurement systems, the author has deliberately avoided giving references of specific projects in different countries, although this information may be available with the author. It is left to the concerned authorities in each country to conduct a technical review of their respective e-procurement implementations, and take corrective action.

THE RED FLAGS

Overall Guiding Principle for Addressing the Red Flags: In terms of ‘security and transparency’, e-procurement should be better than the ‘manual tendering’ process, or at least as good. It certainly cannot be accepted if it is worse in this respect. Well established practices of manual bidding (or tendering), especially those relating to security and transparency, should have corresponding functional equivalents in e-tendering/ e-procurement application.

Red Flag No.1 In many current e-procurement systems, the ‘Bid-sealing/ Bid-encryption’ methodology is non-existent, or poor/ flawed.

Background: In the manual process of bidding or tendering, bids are sealed in paper-envelopes to ensure ‘confidentiality’ of the bid before the Public Tender Opening Event (Public-TOE) from not only competitors, but also officers of the procuring entity. Sealing a bid in a paper envelope makes the bid data ‘unreadable’. There has to be a functional equivalent of this in the electronic system also.

A re-engineered functional equivalent of a ‘sealed envelope’ can be an ‘encrypted bid’. The process of encrypting the bid data achieves the objective of making the bid data ‘unreadable’, until it is decrypted during the Public-TOE.

However, if no such functional equivalent is provided in the re-engineered electronic system, or a vulnerable form of bid encryption is provided, it would vitiate the sanctity of the public procurement process under the garb of re-engineering.

On-the-Ground Situation in Flawed e-Procurement Implementations: The flawed e-procurement implementations fall into two broad categories;

Category-1: In such systems, the online bids which are submitted by the bidders are not encrypted at all. This would tantamount to bids being submitted without sealed envelopes. Administrators of the e-procurement portal and those having access to the database can peep into the contents of bids to help some preferred bidder(s), and thus compromise the ‘confidentiality’ aspect of the process. Such e-procurement systems are too unsecured and basic to be used for public-procurement.

Category-2: Bids are encrypted, but the bid encryption methodology is inappropriate for the requirement of secure public procurement. Now, essentially, there are two broad methods of data-encryption (ie bid-encryption in the context of e-procurement), viz – ‘symmetric’ and ‘asymmetric’. Specifically, where asymmetric key (eg public-key of the bid-opening officer of the procuring entity) is used for bid-encryption, clandestinely made copies of bids can be stolen through spyware and
secretly decrypted before the Online Public-TOE resulting in compromise of confidentiality. Similarly, bid-confidentiality can be compromised where the ‘main bid-encryption’ is done at database level, and only SSL encryption is done during the transit phase from bidder’s system to the e-procurement portal. In such systems, there are many other allied deficiencies relating to functionality and transparency. If system-generated symmetric-key is used for bid-encryption, it also has vulnerabilities as a copy of the key may be accessed by the system administrator for clandestine decryption prior to the Online Public-TOE. For a more detailed explanation of the issues, the reader may refer to -- a) Reference-1 (e-Procurement Integrity Matrix, especially sections II, III and partially IV); Reference-2 (e-Procurement Guidelines, Annexure-I, especially sections 2, 3, and partially 4); Reference-3 (Applied Cryptography, pp 33).

To justify the application of PKI for bid encryption in spite of the associated security vulnerabilities as briefly explained above, a ‘misconception’ is often propagated by vested interests that the Information Technology Act 2000 (Reference-4), i.e IT Act, recommends the use of PKI for data encryption (i.e. bid encryption in the context of e-procurement). This is not correct. The IT Act does not prescribe any method of data encryption. The focus of the current IT Act is on use of ‘digital signatures’ for – authentication, non-repudiation and data-integrity of electronic records. Digitally signing an electronic document or record (or data) does not encrypt the data, i.e it does not ‘secret’ the data. The digital signature (which is created by first producing a one-way hash of the data being signed, and then encrypting the hash with the private-key of the signer) is distinct from the original record (or data) of which the signature has been created. The signature thus created can be kept separate from the original data. In this case, the original data (or record) remains as readable after the signature, as it was before the signature.

It may please be noted that highlighting the vulnerabilities of PKI based bid-encryption in the context of public procurement should not be construed as a sweeping criticism of the use of PKI for any form of data encryption. The criticism is only in respect of its use for bid-encryption in the specific context of public procurement. The merits and demerits of any tool or methodology have to be weighed with reference to the relevant context or situation.


Furthermore, reputed international textbooks on cryptography have also clearly highlighted the limitations of asymmetric key based data encryption, especially in respect of its ‘slowness’ and ‘vulnerability’.

For a more detailed explanation of the issues, the reader may refer to -- section 2.5 titled ‘Communications using Public-Key Cryptography’ of ‘Applied Cryptography’ by Bruce Schneier (Reference-4, pp 33)
**Brief Remedial Suggestions:**

As stated above, internationally acceptable forms of bid encryption include – symmetric-key, and asymmetric-key (also referred to as PKI in some countries). Bid-encryption using ‘bidder-created symmetric key/ passphrase’ has distinct advantages (including being free of the vulnerabilities mentioned above), and has been used for the purpose of bid-encryption in the software of ElectronicTender developed under the guidance of the author. Where ‘Requests for Proposals (RFPs)’ for e-procurement systems allow both forms of bid encryption, the RFPs should specify that security vulnerabilities as described in sections II and III of the ‘e-Procurement Integrity Matrix’ (Reference-1) and sections 2 and 3 of Annexure-I of e-Procurement Guidelines (Reference-2) must be satisfactorily addressed by the e-procurement application software provider with proper explanation. These explanations should be thoroughly vetted and tested by the Government department using the system as a procuring entity.

**Red Flag No. 2** In most e-procurement systems, instead of ‘Online Public Tender Opening Event’ (Online Public-TOE), or Bid Opening Event, there is only a rudimentary ‘Online Bid Opening’).

**Background:** In the manual process of bidding or tendering, the sealed bids are opened in public, ie in the presence of the bidders who have submitted bids for a particular tender. Salient points of each bid are read out aloud, and each page of each opened bid is counter-signed by one or more tender-opening officers of the procuring entity. This is to ensure transparency and fair play. As per established principles of public-procurement, it is intended that in this event, each bidder should know what the other bidders have quoted, so that no unfair and clandestine changes are made later due to any connivance between a bidder and the procuring entity officers.

A re-engineered functional equivalent of the manual Public-TOE would be an ‘Online Public TOE’, in which the bids are opened online by the authorized tender opening officers of the procuring entity in the simultaneous online presence of bidders, along with other important procedures such as digitally counter-signing of the bids online by the TOE-officers in the simultaneous online presence of bidders.

However, if no such functional equivalent is provided in the re-engineered electronic system, or bids are merely opened online (without the simultaneous online presence of bidders), and then subsequently put up for display, or corners are cut for example by not having online countersigning of the opened bids by the TOE-officers in the simultaneous online presence of bidders, it would vitiate the sanctity of the public procurement process under the garb of re-engineering.

E-procurement systems, where online TOE is conducted in this non-transparent fashion, without the simultaneous online presence of the bidders, gives rise to the possibility of bid-data tampering.

**On-the-Ground Situation in Flawed e-Procurement Implementations:** In a very
questionable manner, most e-procurement systems have done away with the Online Public-TOE. As mentioned above, in such systems bids no doubt are opened online, but not in the simultaneous online presence of bidders. The procedures of manual tendering which are interactive in nature and conducted in the presence of other bidders, are thereby done away with. After opening, the bid contents may (or may not) be put up for display to the bidders. In either case, it gives rise to the possibility of bid tampering.

**Brief Remedial Suggestions:**

A comprehensive and transparent Public Tender Opening Event is the ‘backbone of transparency and fairness’ of the Public Procurement process, manual or electronic. It must be ensured that e-tendering/ e-procurement application has comprehensive functionality for a transparent Online Public-TOE. Well established practices of manual tender opening (with legal and transparency related significance) should have corresponding functional equivalents in the electronic system for transparent e-tendering/ e-procurement.

Some relevant processes of a fair and transparent Online Public-TOE should include:

i. Opening of the bids in the simultaneous online presence of bidders with proper online attendance record. Merely opening bids online and then subsequently displaying some results to the bidders does not fulfill the requirements of a transparent Online Public-TOE.

ii. Security Checks to assure bidders of non-tampering of their bids (during storage), et al during the online TOE itself

iii. One-by-one opening of the sealed bids in the simultaneous online presence of the bidders

iv. Allowing bidders to download the electronic version of the salient points of each opened bid (opened in the simultaneous presence of bidders) simultaneous with the opening of that bid.(This would be the functional equivalent of reading out aloud the salient points each opened bid in the manual system)

v. There should be a procedure for seeking clarifications by the TOE officers during Online Public-TOE from a bidder in the online presence of other bidders, and recording such clarifications

vi. Digital counter-signing (by all the tender opening officers) of each opened bid, in the simultaneous online presence of all participating bidders

vii. Preparation of the ‘Minutes of the Tender Opening Event’ and its signing by the concerned officers in the simultaneous online presence of the bidders.

For a more detailed explanation of the issues, the reader may refer to -- a) Reference-1 (e-Procurement Integrity Matrix, especially sections V (3) and VI (8)); Reference-2 (e-Procurement Guidelines, Annexure-I, especially sections 5 and 6).
Most e-procurement systems do not have the functionality to accept ‘encrypted (ie sealed) detailed bids’.

**Background:** In the manual process of bidding or tendering, for example in a single-stage-two-envelope tender, both the technical bid-part and the financial bid-part are separately sealed in paper-envelopes to ensure ‘confidentiality’ of each bid-part.

In the e-procurement system also it is expected that both bid-parts would be encrypted before being submitted.

However, if no such functional equivalent is provided in the re-engineered electronic system, it would vitiate the sanctity of the public procurement process under the garb of re-engineering.

**On-the-Ground Situation in Flawed e-Procurement Implementations:**

Some systems ‘do not encrypt the technical bid at all’, ie neither the electronic template of the technical bid, nor the detailed technical bid. In such systems, typically ‘only summarized financial data in electronic templates’ may be encrypted. This is against the established practices of ensuring confidentiality of technical bids.

**Brief Remedial Suggestions:**

As in the manual tendering process, all bid envelopes, viz technical, financial, and pre-qualification, as applicable should be sealed, ie suitably encrypted by the bidders in the e-tendering/ e-procurement system. In e-procurement systems, a bid envelope may consist of an electronic-form (for capturing the summary or salient aspects of a bid, especially those which are typically read out during the public TOE in the manual system), as well as, an accompanying detailed bid (which could be a large file). All bid parts must be encrypted and digitally signed. If required, printed brochures, manuals, physical samples etc can be submitted offline.

For a more detailed explanation of the issues, the reader may refer to -- a) Reference-1 (e-Procurement Integrity Matrix, especially sections II (3) and VI (6,7); Reference-2 [e-Procurement Guidelines, Annexure-I (especially sections 1.2, 6.1, 6.2) and Annexure-III].

Many e-procurement systems do not have the functionality for digital signing of important electronic records which are part of the e-procurement application.

**Background:** In the manual process of bidding or tendering, a bidder signs every page of the bid being submitted. This is for ensuring authenticity of each page of the document being submitted. Also, any subsequent change in the document (in the form of erasure or over-writing) has to be authenticated with signature of the bidder otherwise the change is unauthorized or can be the result of tampering. The need for a similar process is certainly not obviated in the e-procurement system. Unauthorized
changes in an electronic document will not even be visible to the eye, unless adequate precautions have been taken.

A re-engineered functional equivalent of the physical signatures on a paper document can be the use of Digital-Signatures (based on PKI, or Private-Key-Public-Key pair). With proper implementation, a digitally signed electronic document can establish three things about the signed data— authenticity, non-repudiation and integrity. With proper implementation, the integrity aspect establishes the nontampering of the electronic document.

However, if no such functional equivalent is provided in the re-engineered electronic system, or weak or partial provisions are made, it would vitiate the sanctity of the public procurement process under the garb of re-engineering.

On-the-Ground Situation in Flawed e-Procurement Implementations: Some e-procurement systems do not use digital signatures at all. Some systems use it for only signing the bids. Some systems have facility for limited signing but corresponding facility for verification is missing, thus making the act of signing effectively useless.

To justify as to why they are not using digital signatures, ‘misconceptions’ are often propagated by vested interests (or out of ignorance) about the use of digital signatures. Some of these misconceptions are outlined below:

<table>
<thead>
<tr>
<th>Misconception</th>
<th>Clarification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital signatures are expensive</td>
<td>It is incorrect to say that digital signature certificates are expensive. Cost has to be seen with reference to the context. Where tenders of value running into millions of USD (or even tens of thousands of USD) are involved, a bidder should not mind spending the equivalent of USD 10 to 30 for a digital certificate which will last him for a year or two. This would be equivalent to the cost of going by a cab from one’s office to another office in the same city! The same certificate can also be used for other purposes.</td>
</tr>
<tr>
<td>Digital signatures cannot be used from web-cafes</td>
<td>This is incorrect. There is no technical constraint in the use of digital signatures from web-cafes.</td>
</tr>
<tr>
<td>For a foreign bidder (ie potential offshore supplier) to acquire digital signatures from the country of the procuring-entity, he has to travel to the country of the procuring entity</td>
<td>This is certainly not true for a country like India. The position can be checked for other countries. There are well established procedures, at least in India, for a foreign supplier’s representative to get a certificate without travelling to India.</td>
</tr>
<tr>
<td>User id and password can be as robust and reliable as any other method, including PKI</td>
<td>PKI-based digital signatures are being used for one or all of the following purposes/functions:</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>a) To ‘login’ to e-GP portal/application</td>
<td></td>
</tr>
<tr>
<td>b) To establish the identity of the signatory of the electronic record/document (eg an electronic bid, or bidding-documents)</td>
<td></td>
</tr>
<tr>
<td>c) To sign the ‘content/data’ of the electronic record/document (eg an electronic bid, documents)</td>
<td></td>
</tr>
<tr>
<td>d) To protect against ‘tampering’ of the electronic record/document (eg an electronic bid, or bidding documents), ie ensuring its ‘integrity’ While other forms of electronic authentication (or electronic signatures) such as ‘only password’ (user id normally being a common factor) may achieve purpose ‘a’ mentioned above (with possibly lower security than PKI), it certainly cannot address other purposes mentioned above, and certainly not the aspect relating to non-tampering.</td>
<td></td>
</tr>
</tbody>
</table>

| The UNCITRAL Convention (2006) considers other forms of electronic authentication equal to digital signatures | There are riders in the UNCITRAL Convention, and unless these are understood, misleading conclusions will be drawn. Furthermore, it may please be noted here that use of digital signatures is not just for the purpose of authentication. It also serves a very important role for establishing the ‘integrity’ (ie non-tampering) of electronic records. For example, while Biometrics may be considered as an alternative method of authentication, it would not serve the purpose in respect of ensuring integrity of electronic records. |
**Brief Remedial Suggestions:**

Use of digital signatures must be as per the letter and spirit of the IT Act 2000 (Reference-4) and its subsequent amendments for the purpose of -- authentication, non-repudiation and integrity of all important electronic records. Such electronic records should include -- tender notices and corrigenda, tender documents and addenda, online clarification of tender documents sought by the bidder, signing of bids (including modification and substitution bids) by the bidder, online counter-signing of all opened bids by the tender-opening officers in the online presence of bidders, online minutes of the tender opening event. Facility should be provided within the e-tendering/ e-procurement system to 'verify' digital signatures which have been affixed to the electronic records.

For a more detailed explanation of the issues, the reader may refer to -- a) Reference-1 (e-Procurement Integrity Matrix, especially section V; Reference-2 (e-Procurement Guidelines, Annexure-I, especially section 5, and Annexure-IV).

**Red Flag No. 5**  In most e-procurement systems, functionality of the system is limited [eg all types of bidding methodologies are not supported].

**Background:** In the manual process of bidding or tendering, depending on the circumstances and nature of a tender, one of the many bidding methodologies may be prescribed by a procuring entity, and the bidder would have to respond accordingly. These methodologies could include the following:

a) Single-stage, single-envelope
b) Single-stage, two-envelope
c) Two stage (with facility for ‘technical conformance’, and if required, ‘revised tender documents’)  
d) Two-stage, two-envelope
e) Where required, the above may be combined with a Pre-qualification stage  
f) In some cases, the procuring entity may allow submission of one or more alternative-bids  
g) Each bid part (eg technical, financial) may be required to be submitted in a ‘summary format’ along with a ‘detailed bid’. The latter could be a large file.  
h) After having submitted the ‘original’ bid for each bid-part, a bidder has a right to submit:  

An e-procurement/ e-tendering system should provide the functional equivalent of the above methodologies.

However, if no such functional equivalent is provided in the re-engineered electronic system, or weak or partial provisions are made, it would vitiate the sanctity of the public procurement process under the garb of re-engineering.
On-the-Ground Situation in Flawed e-Procurement Implementations: In some e-procurement systems, only ‘single-stage-single-envelope’ bidding is supported, which may be good enough only for stores items. Similarly many systems do not support the submission of ‘supplementary bids (viz modification, substitution and withdrawal)’ after final submission, but before elapse of deadline for submission. This is against the established practices of manual tendering, and at best such systems offer partial functionality.

**Brief Remedial Suggestions:**

The e-tendering system should support all established bidding methodologies. Depending upon the requirements of a tender any one of the multiple bidding methodologies as outlined below may be used:

- Single stage, single envelope
- Single-stage, two-envelope
- Two stage (with facility for ‘technical conformance’, and if required, ‘revised tender documents’)
- Two-stage, two-envelope
- Pre-qualification stage, where required
- Where required, submission of one or more alternative-bids, as applicable
- Each bid part (eg technical, financial) may be required to be submitted in a ‘summary format’ along with a ‘detailed bid’. The latter could be a large file
- There should be provision of appropriate file size (at least 10 MB) in the application with data encryption
- After having submitted the ‘original’ bid for each bid-part, a bidder should have the facility to submit:
  - ‘Modification’ bid
  - ‘Substitution’ bid
  - Or ‘Withdrawal’ bid for all his bid-submissions.

The e-tendering/ e-procurement system must effectively cater to all these possibilities without compromising security and transparency in any manner at any stage, for any bid part (such as pre-qualification, technical, and financial).

For a more detailed explanation of the issues, the reader may refer to -- a) Reference-1 (e-Procurement Integrity Matrix, especially sections VI (6); Reference-2 (e-Procurement Guidelines, especially sections ‘1.2, 3.1, Annexure-I (sections 1.2, 5.1, 6.1), Annexure-II, Annexure-III).

**Red Flag No. 6** Many e-procurement systems are such that it results in abdication of powers of the concerned officers of the Government Procuring Entity.
**Background**: In the manual process of bidding or tendering in a large Government or public-sector procuring entity, there can be multiple indenting departments, multiple tendering authorities (i.e., entities which can invite tenders in their name), and tens (and sometimes hundreds) of officers involved with different activities relating to various tenders.

A re-engineered functional equivalent of the above administrative hierarchy is required if the concerned officers of the Government procuring entity are to perform their duties without abdicating their powers to others.

However, if no such functional equivalent is provided in the re-engineered electronic system, or weak or partial provisions are made, it would vitiate the sanctity of the public procurement process under the garb of re-engineering.

**On-the-Ground Situation in Flawed e-Procurement Implementations**:

In many e-procurement/e-tendering systems, the concerned departments and officers are not able to themselves execute their duly assigned roles as in the manual process, and are constrained to re-assign/abdiicate their roles and responsibilities to a few tech-savvy technicians or the personnel of the service-provider of the e-tendering system.

Furthermore, in some situations this also results in handing over the private-keys (PKI) of the concerned officers to others, which is a violation of s-42(1) of the IT Act (Reference-4), and equivalent provisions, para 3(b) of Article-6 of the UN Model Law (Reference-5).

**Brief Remedial Suggestions**:

Changing over to e-procurement does not imply that the powers and duties (including those under the Official Secrets Act) of the officers for the core tendering processes can be passed on to ‘third-party service providers’, or to a few technical personnel within the procuring entity. Each officer, who currently enjoys powers and has responsibilities relating to procurement activities, should be able to exercise the same under the e-procurement system. The e-procurement system should support such functionality by facilitating a comprehensive hierarchy of officers, with specific role authorization facility.

For a more detailed explanation of the issues, the reader may refer to -- a) Reference-1 [e-Procurement Integrity Matrix, especially sections V (1, 2) and VII (7); Reference-2 (e-Procurement Guidelines, especially Annexure-I, (section 5.1)].

**Note-4**: The Red Flags described above essentially relate to the design and functionality of the e-procurement application. The two red-flags described below are not directly related to the core e-procurement application. However these are important allied concerns.

(Allied Red Flag No. i): Diluting the Focus on Security, Transparency and Functionality of the core e-Procurement System by diverting attention to Integration with Backend ERP/other Financial Systems:
Background: The prime objective of e-procurement strategy should be to first build secure, transparent e-procurement systems with all the required vital functionality. Once this is achieved, additional advantages can be gained through integration with back-end ERP/Financial systems. This is important as approximately 80% of the public expenditure is through tenders which constitute less than 20% in number (Large-Value-Small-Number tenders). On the other hand, tenders which constitute less than 20% in value, make up for more than 80% in number (Low-Value-Large-Number tenders, or e-Purchasing). Because of the smaller number of ‘Large-Value tenders’, the existing financial systems are reasonably equipped to handle the financial record keeping part. Integration with backend ERP/Financial systems would predominantly streamline ‘e-Purchasing’ which constitutes less than 20% of public procurement in value-terms, and is anyway not an area of major scams.

On-the-Ground Situation in Flawed e-Procurement Implementations: In some countries, without first strengthening and stabilizing the core e-procurement system(s), the attention is being diverted to integration with ERP/Financial systems. In the process, the core e-procurement system(s) have very rudimentary security and transparency related functionality. This trend can prove risky in the sense that it can jeopardize the stated principles of public procurement, and compromise security and transparency.

Brief Remedial Suggestions:

Use of rudimentary e-procurement modules of ERP systems, or integration of rudimentary e-procurement applications with back-end ERP/Financial systems should be avoided.

Integration with back-end ERP/Financial systems can be taken up once the main e-procurement system(s) have stabilized.

If integration with backend ERP/Financial systems is necessary, it must be ensured that there is no compromise whatsoever in the security, transparency related functionality and robustness of the core e-procurement system.

(Allied Red Flag No. ii): Misconceptions and Myths about Certified and Tested e-Procurement Systems

Background: Many e-procurement systems with weak functionality try to cover-up their vulnerabilities by using the following as a fig-leaf:

- Obtaining Certification for Security Tests like -- CERT, OWASP, FBI Top 20, etc
- Obtaining Certifications like -- ISO 27001 et al

While the above tests are important and useful, these are not sufficient. These tests are general in nature, and do not have anything specific to address the intricacies of e-procurement.

Furthermore, customization invalidates any previous certification. If e-procurement software is customized for each project, the above mentioned general security tests performed on some previous version of the software, lose their relevance.
Brief Remedial Suggestions:

a) The main tendering processes of Government organizations are all within a standard framework, so there should be no need for customization for each project except possibly for ‘integration with other applications’.

b) Government of each country which is planning to adopt e-procurement should prepare detailed guidelines similar to the documents referred to herein as Reference-1 and Reference-2.

c) Government of each country should empower a department under their Ministry of Information Technology or equivalent to conduct ‘e-procurement functionality and security related tests’ as referred to in the Referenc-2 document.

REFERENCES


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ANNEXURE-I

Typical Broad Steps in Government Tendering conducted manually (which are expected to have electronically conducted equivalents in an e-Procurement System)

Buyer Perspective

• Requisition/ Indent Approval
• Advertisement of Bid-Invitation/ Tender Notice/ Notice Inviting Tender (NIT)
• Advertisement of Corrigenda, ie amendments to a Tender Notice
• Sale/ Distribution of Tender Documents
• Distribution of Addenda, ie amendments to Tender Documents
• Responding to Clarification to Tender Documents/ Pre-Bid Meeting
• Receipt and secure Storage of Sealed-Bids
• Conducting a transparent Public Tender Opening Event (TOE). Some salient steps in a transparently conducted TOE include:
  a) Authorized representatives of bidder organizations who have submitted their bids are entitled to be present and have to sign in their attendance.
  b) Each bid is opened one at a time in front of the participating bidders, and the concerned bidder is entitled to satisfy himself that his bid packet is intact and has not been tampered with.
  c) If Bid security [earnest money deposit (EMD)] is applicable for a tender, then details of the EMD submitted, or exemption claimed with basis thereof is disclosed to the participants.
  d) Salient points of each opened bid are read out aloud for the benefit of the participating bidders, and to ensure that no change is made in the bid contents later through connivance. Participating bidders take notes of the competitors’ bid contents which are being read out.
  e) Clarifications may be sought from a bidder whose bid has been opened and record is made of the query and the response.
  f) Each page of the opened bid is countersigned during the TOE itself (by each tender opening officer (typically up to 3) to ensure that no change is made in the bid contents later through connivance.
  g) After all the bids are opened and countersigned by the TOE officers, the minutes of the meeting (i.e., TOE) are to be recorded.
  h) Each bid part may be opened in a separate tender opening event in which only the authorized bidders are allowed. This is supposed to be done in a very transparent manner with proper scheduling of events and proper information to the concerned bidders.
  i) Bid parts which are due for opening in a subsequent tender opening event are securely stored till that event.
  j) If in a particular TOE, if it is decided not to open the bid of a bidder, then such bids are returned opened.

• Evaluation of Bids and seeking Technical Conformance/ Clarifications, where relevant
• Receipt and secure Storage of Sealed Revised Bids, where relevant
• Follow-on Public Tender Opening Event(s), where relevant
• Award of Contract

Supplier Perspective
• Searching/Viewing advertisement of Bid-Invitation/ Tender Notice/ NIT
• Searching/Viewing advertisement of Corrigenda
• Procurement/Receipt of Tender Documents
• Receipt of Addenda
• Seeking Clarification to Tender Documents
• Preparation and Submission of Sealed-Bids
• Attending Public Tender Opening Event (related activities are already covered under ‘Buyer Perspective’).
• Responding to Clarifications sought by Buyer, where relevant
• Preparation and Submission of Revised Sealed-Bids, where relevant
• Attending follow-on Public Tender Opening Event(s) , where relevant
• Receipt of Award (or regret)

ANNEXURE - II
Salient Benefits of e-Procurement

Summary of ‘Overall’ Benefits of e-Procurement to a Buyer Organization
• Reduction in Time
• Reduction in Cost
• Reduction in Tedium
• Wider Reach
• Enhanced Security (Conditional)
• Increased Transparency (Conditional)
• Availability of Supplier Profiles
• Enhanced Choice of Vendors/ Suppliers (Increased Competition)
• Streamlining of the Procurement Processes (Conditional)
• Should get Better Prices because of reduced overheads of Suppliers
• Assists the top-management in ensuring better Control over the procurement activities of the organization with minimal physical intervention (Better Control with enhanced Accountability) [Conditional]
• Choice and combination of bidding methodologies, including sealed-bid e-procurement methodologies, combined with e-ReverseAuction methodologies for betterment of prices [Conditional]

Summary of ‘Overall’ Benefits of e-Procurement to a Supplier Organization
• Reduction in Time
• Reduction in Cost
• Reduction in Tedium
• Wider Reach
• Enhanced Security (Conditional)
• Increased Transparency (Conditional)
• Availability of Buyer Profiles
• Streamlining of the processes for participating in tenders (Conditional)
• Assists the top-management in ensuring better Control over the bidding activities of the organization with minimal physical intervention (Better Control with enhanced Accountability) [Conditional]
• Extended opportunity to win a bid in a transparent manner, in cases where the Purchase organization resorts to e-ReverseAuction after the electronic sealed-bid round [Conditional]
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A view of underground Tehri Power House

Tehri Power House 4x250=1000MW