



# International EPC Contract: contract scheme , stages and practical points

## 國際統包工程(EPC)契約及架構之介紹

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## A .What is an EPC Contract?

- An EPC contract contains provisions describing all responsibilities and guarantees associated with the built facility's plant performance, project schedule, plant warranty, and project completion.

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- 政府採購法
- → 基於效率及品質要求，得以統包辦理招標，
- → 指工程或財物採購中之設計與施工、供應、安裝或一定期間之維修等併於同一採購契約辦理招標。(政府採購法第24條)
- → 於工程採購之統包，係指含細部設計及施工，並得包含基本設計、測試、訓練、一定期間之維修或營運等事項。(統包實施辦法)
- → 於財物採購之統包，係含細部設計，供應及安裝，並得包含基本設計、測試、訓練，一定期間之維修或營運等事項。(統包實施辦法)

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## Project Delivery Method

- Design-Bid-Build
- Design-Build
- EPC (Turnkey)
- Construction Management
- DBO
- BOT

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## Pricing of Contract

- Lump Sum
- Cost Reimbursement
- Unit Price
- Hybrid

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## Characteristics of EPC Contract

- Lump-Sum Based
- Project Financing Concerns
- Fast-tracking
- Value Engineering
- Cost of Risk

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## Issues in Lump-Sum EPC

- Scope of Work
- Express scope of works
- Implied scope of works

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- PMC's Role
- Price Adjustments
- Extension of Time
- Employer Responsibility
- Time limitation on acceptance

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- Provision of drawings, documents and design data listed in the Specifications
- No responsibility for errors or discrepancies in drawings and documents, except specified circumstances
- Assistance in obtaining government permits
- Provision of access to site

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- Contractor's Responsibilities
- Contractor's undertaking
- Taxes, levies & duties included in pricing
- Trade secrets
- Commencement within X days of EDC

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- International professional standards of skills, care and diligence
- Site safety & public safety
- Other obligations

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- Contractor's representations
- Independent Contractor
- One who is hired to undertake a specific project but who is left free to do the assigned work and to choose the method for accomplishing it.
- One who commits a wrong while carrying out the work does not create liability to the employer.

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- Definition of Completion
- Defects Liability
- Liability/ Indemnification
- Cumulative liabilities/damages and LD
- Exclude:
  - any and all liability to make good of the work and complete the plant
  - any and all liability arising from intellectual infringement/Torts
  - gross negligence and/or willful misconduct of the EPC contractor

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## 1999 FIDIC Series

- FIDIC Contract Documents
  - General Conditions
  - Particular Conditions
  - Tendering, Contract Form, DAB
- 1999 Series
  - 1999 Red Book ( Construction Only )
  - 1999 Yellow Book ( Design-Build )
  - 1999 Silver Book ( EPC )
  - 1999 Green Book ( Simple Construction )

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## Structure of EPC Contract

- Part I: Form of Contract
- Part II: General Conditions of Contract
- Part III: Particular Conditions of XXX Project
- Part IV: Technical Requirements
- Part V: Contract Price, BOQ and Unit Price
- Part VI: Exhibits

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## 國際統包契約之締約程序

- There are many contracts and agreements need to be signed from the tender/bidding stage to the award the contract

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## Planning Stage:

- Owner: Feasibility Study (FS)
- Technical
- Commercial
- Consultancy agreement

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## Tender (open tender/ invitation) Stage:

- Owner:
- Select Licensor ( know how/ process design process )
- Prepare bidding document
- Pre-qualification (PQ) document
- Contractor provide technical criteria, experiences, financial information
- Review by owner or consultant
- Licensor agreements and PCM contract

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- Shortlist
- Issue Invitation to bidder and Non-disclosure Agreement
- Project basic information and concept
- Specifications: Standards and requirements
- Schedule
- Terms and conditions
- Commercial terms



## Bidding Stage:

- EPC Contractor prepare proposal (Basic)
- Cost estimation: Major Material ( concrete, steel, piping, cable)
- Bid shopping: Vendors and subcontractors
- Pre-bid agreement signed between EPC contractor and Vendors and subcontractors



- EPC Contractor's Proposal contains:
- Technical: execution plan, manpower, equipment, construction sequence
- Commercial: price, liability,
- Schedule
- Submit the clarification; point out the deviations
- Clarification is very important for both owner and contractor: make sure the equal basis for SOW, can be done by email/letter or face to face.

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- Submit the cost impact for the result of clarification
- Commercial proposal review
- Negotiation (Letter of Intent/Term Sheet/Not binding)
- Novation agreements between Owner, EPC contractor and licensor/ owner's vendors
- Award the contract

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## EPC contract with Contractor and Supplier

- On shore contract----E & C
- Off shore contract----E & P
- Taxation consideration
- Coordination agreement/ bridging agreement----If two parties
- Consortium VS. Joint Venture : joint and several liability
- Parent company guarantee

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## Project financing

- Loan agreement----Employer vs. Banks
- EPC contract-----Employer vs. Contractor
- Condition precedent:
  - 1.Financial arrangement Before NTP
  - 2.Down payment vs. Performance Bond
  - 3.Not call bond if no breach

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- Direct agreement---Bank vs. EPC contractor ( Without prejudice to the rights in the EPC contract)
- Change Scope of Work and material change of the terms and conditions of EPC Contract-----Subject to approval or consent of Bank.
- Contractor's right----assignment---as collateral to bank/ not any third party

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- Construction general pledge agreement : owner, bank and EPC contractor ( security keeper )
- Assignment agreement: owner and Bank
- Acknowledgment of assignment : EPC contractor and owner
- Contract amendments during the performance of the EPC contract: on shore and off shore contract

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## C. Conclusion

- Well-prepared
- Select good consultant, contractor and supplier
- Strong financing ability
- Have lawyer at beginning



**Thanks**



# 提問與討論