

### **EPC Contracts**

ESQ LEGAL - POWER / PROJECT FINANCE WORKSHOP

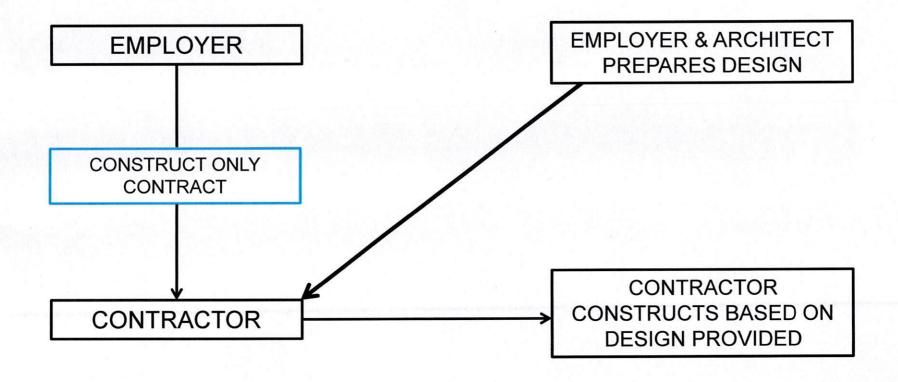


#### Introduction

- Traditional procurement (construct only)
- Design and Build (D&B)
- Engineering, Procurement and Construction (EPC)
- Why are EPC contracts preferred?

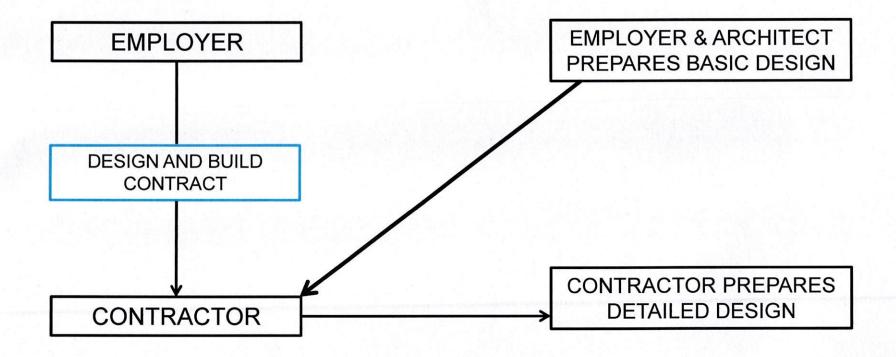


#### **Traditional Procurement**



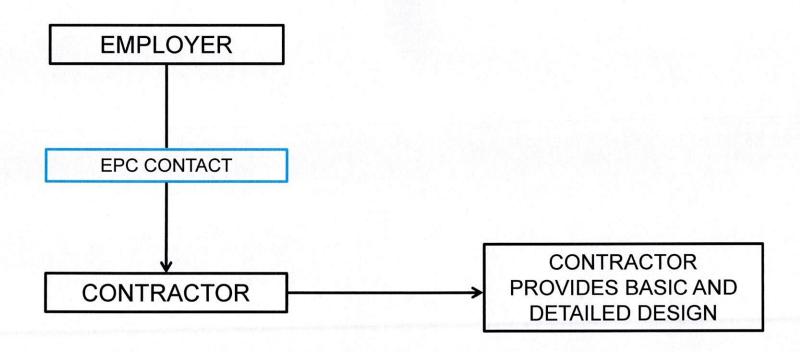


# Design and Build





## **EPC Contract**





### **EPC Contract – Forms**

- Two main types of EPC contracts:
  - lump sum turnkey
  - cost-plus
- Industry standard
- Bespoke form
- Choice of EPC contractor
  - third party
  - sponsor affiliate



## **EPC Contract – Basic Obligations**

- Fundamental obligation of EPC Contractor to deliver:
  - a complete facility
  - for a fixed price
  - by a specified date
  - up to contractual performance standards
- EPC Contractor pays liquidated damages for late delivery and performance below the guaranteed level



#### **EPC Contract – Performance Guarantees**

- Main guarantees for power plants:
  - output
  - heat rate
  - emissions
  - reliability
  - availability
- Guarantees during tests on completion performance test and reliability test
- Guarantees after completion availability
- Absolute or non-absolute guarantees



## Key EPC bankability issues

- Cost overruns
  - variations, change in law, defects, owner's risks
- Timely completion
  - variations, defects, force majeure, owner's risks, delay liquidated damages
- Guaranteed performance
  - re-testing, performance liquidated damages, rejection, termination
- Security package
  - performance bond, warranty bond, retention bond, parent company guarantee
- Caps on liability
- Assignment
- Termination & suspension
- Direct agreement
- Governing law & dispute resolution



### **EPC Contract – Contracting Strategies**

#### Single EPC procurement

- EPC contractor provides the technology and takes full risk
- EPC contractor provides single point of contact and responsibility
- Common for conventional coal-fired power plants p to about 1,200 MW
- Attractive to lenders because EPC contractor takes completion and performance risk for the whole plant

#### Multiple EPC procurement

- More than one EPC contractor responsible for different parts of work
- Risk is shared between multiple contractors
- Owner is responsible for managing interface and gaps risks between the different contracts



### Single EPC Procurement

#### Advantages:

- Single point of responsibility EPC overall "wrap"
- "One stop shop" saves time and cost in undertaking multiple tendering
- Minimizes interface and gap risks
- Remedies are calculated by reference to the entire project ie. higher

#### Disadvantages:

- Total cost usually higher
- Single contractor responsibility risk if insolvent entity
- Choice of preferred contractor and technology more limited



# Multiple EPC Procurement

#### Advantages:

- Spread risk to different contractors
- Do not pay the cost of an EPC wrap on the whole project
- Choice of select preferred contractor or technology for specific portions of the work

#### Disadvantages:

- Poor performance by one EPC Contractor may affect and delay the entire project
- Establishing and attributing cause of defect to a particular contractor difficult
- Remedies relate to the size of the individual EPC contract rather than the impact a breach may have on the project as a whole
- Employer takes interface risk co-ordination may cause difficulties



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