Oxygen Train 17 Project
Sasol Secunda

May 2018

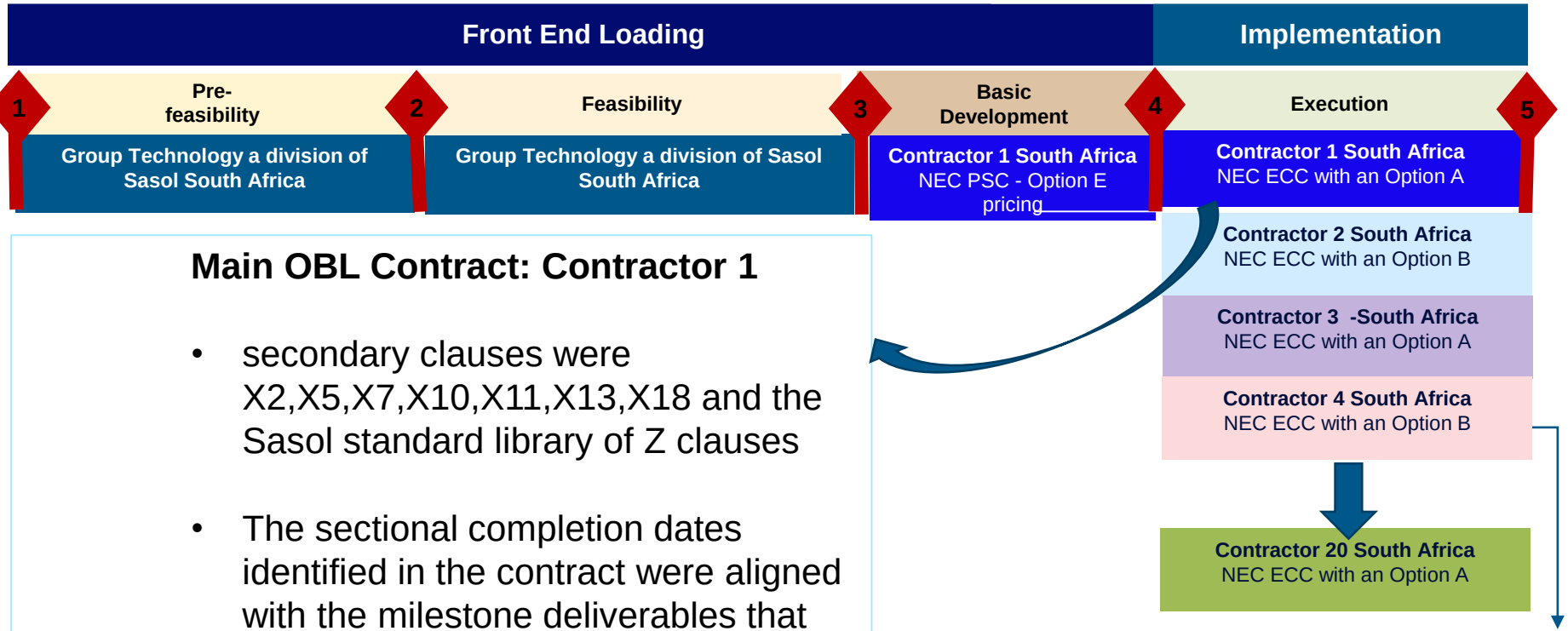
Project overview

- World's largest Air Separation Unit (ASU) ever built,
- Air Liquide invested €200 million for the construction of the 5000 tonne per day air separation train referred to as - 17th Oxygen Train on a build, own and operate basis.
- Group Technology a division of Sasol South Africa was responsible for the design and construction of the OBL's (outside batter limits).

OBL Project Facts & Figures	
Project Value	R1.8 billion
Number of Contract Packages	20
Contract Format	NEC: PSC & ECC
Weld diameter inches welded	23 200
Construction methodology	Modular
Construction hours	More than 3.7 million
Linear meters of piping	16 500
Contract duration (EPC)	16 months

Contracting Strategy

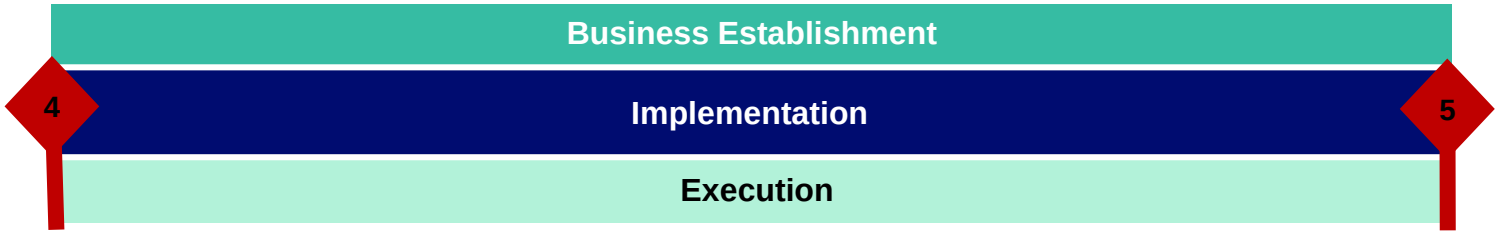
Sasol Business Development & Implementation Model



Main OBL Contract: Contractor 1

- secondary clauses were X2,X5,X7,X10,X11,X13,X18 and the Sasol standard library of Z clauses
- The sectional completion dates identified in the contract were aligned with the milestone deliverables that were agreed with Air Liquide.
- Integration between project requirements and contractual actions

Contracting Strategy



- Multiple NEC ECC contracts utilising option A and option B pricing options were utilised during phase.

- The main execution contract was a design and construct scope -Option A.

  - basic engineering contractor chosen for the detailed design and construction.
  - Decision based on the apportionment of risk logic: contractor was in the best position to manage risk related to scope or quantity increases during construction
  - The contract had multiple sectional completion dates and key dates – facilitate alignment with the IBL delivery.
  - The Contract included X6, bonus for early completion of the section of the works – to further incentivise and drive alignment with IBL

Project Observations

- Project Delivery:
  i. Time: 
  ii. Cost: 
  iii. Safety: 
  iv. Quality: 

- Contract Management:

  i. Proactive management approach adopted – necessitated regular meetings to work through Early Warnings, Compensation Events as well as the maintenance of the associated registers - this kept the team engaged and up to date with contractual deliverables.
  ii. The methodology of only using the defined cost in the determination of cost impact of compensation events and not utilising alternative methods of pricing streamlined the assessment of compensation events.
  iii. Programme management:
    i. Included an automatic early warning system if the schedule deviation exceeded 6%
    ii. Automatic escalation to Senior Management if the schedule deviation exceeded 9% with pre agreed actions