

CHALLENGES = OPPORTUNITIES

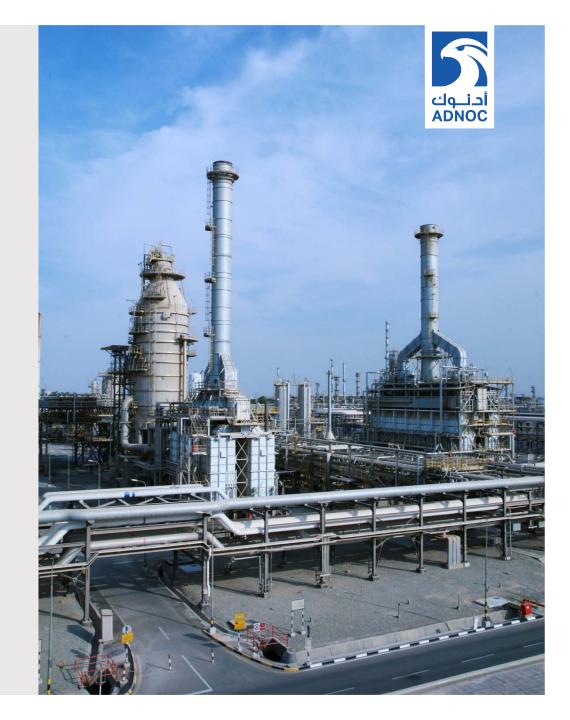
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FUTURE REFINING & PETROLEUM INDUSTRY REFORMATION

OUTLINE

- Overview of ADNOC Refining
- Business Challenges
- Strategies
- Conclusion





OVERVIEW Of ADNOC REFINING

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- The Abu Dhabi Oil Refining Company (erstwhile TAKREER now ADNOC Refining) was formed in 1999 to take over the responsibility of the refining operations of the group.
- Refining of crude oil and condensate, supply of petroleum products in the local and international markets.
 - Total Capacity = 922,000 BPD
 - People: 4,900 Employees
 - ADNOC Refining Research Center
 - 1,900+ Kms of Pipelines of product across the Emirates
- Accreditations: ISO 9001 Quality; ISO 14001 Environmental; ISO 50001 Energy and OHSAS; 18001 Health & Safety; ISO 22301 Business Continuity





REFINERIES LOCATED IN PROXIMITY TO CRUDE





Ruwais Refinery (East):
Capacity: 420,000 bpd (Crude & Condensate
Configuration: CDU, VDU,

Hydrocracker, Mild

Hydrocracker, Reformer, Isomerization, Base Oil.

Despatches: Jetty & pipelines



Ruwais Refineries

ABU DHASI

OHAFFI

UNITED

Abu Dhabi Refinery:

Capacity: 85,000 bpd Configuration: CDU,

Reformer.

Despatches: Pipelines

Ruwais Refinery (West):

Capacity: 417,000 bpd

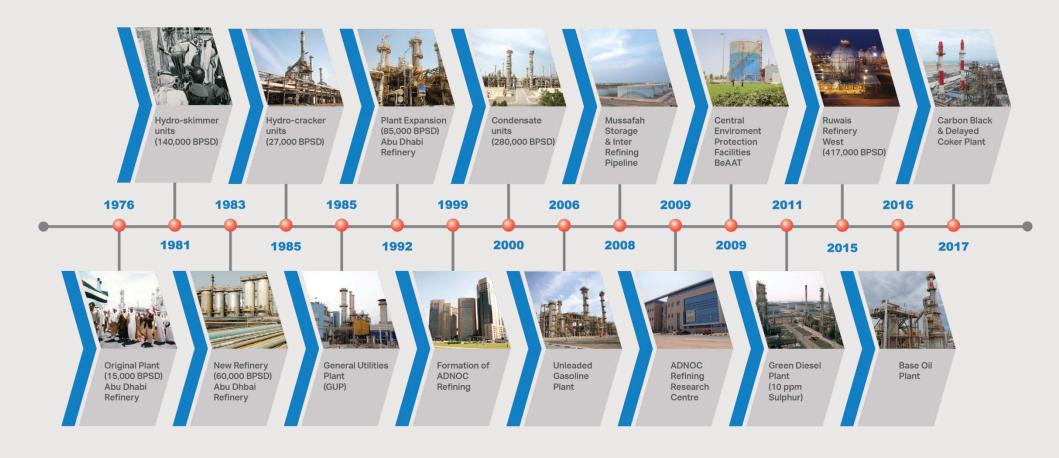
Configuration: CDU, RFCC, Olefin Conversion Unit, Alkylation, mild Hydrocracker, Isomerization, Delayed

Coker, Carbon Black.

Despatches: Jetty & pipelines

ADNOC REFINING JOURNEY SINCE 70'S





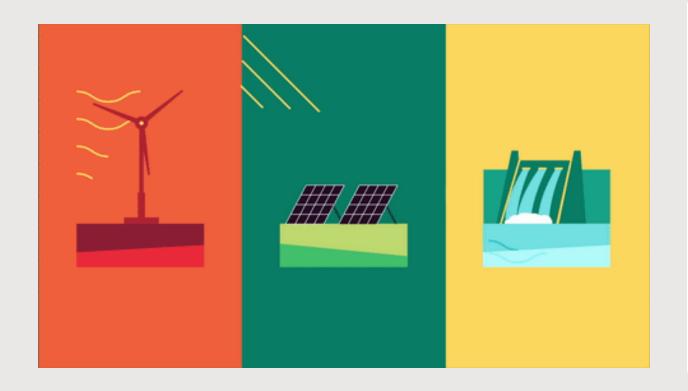


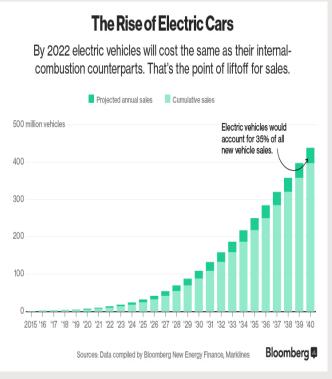






 Competition from Alternative energy sources for transport and other traditional fossil fuel markets





 Global shift towards Diesel production - MARPOL regulation on 0.5% Sulphur in global bunkers expected from 2020





Talented Manpower



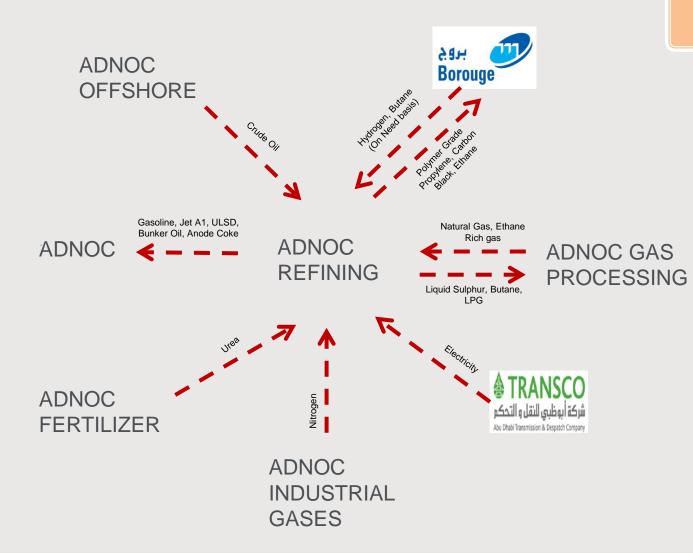




Strategies

OPTIMAL INTEGRATION





SEAMLESS INTEGRATION

INTERCHANGED FEEDSTOCKS & PRODUCTS:

Propane, Propylene, Hydrogen, Ethane gas with Borouge & ADNOG Gas Processing

IN-HOUSE GENERATED UTILITIES-

Hydrogen interconnected amongst Refineries for efficient utilization

ADNOC

Marketing a unified brand which extends across UAE

TRANSCO

Ensuring sustained Electricity from the national grid whilst meeting local demand

ADNOC Onshore company

Seamless supplies of Crude Oil & maximizing high valued product exports

PRODUCTS 'VALUE-ADDITION'



Maximizing Gasoline & **Entry into Aromatics Offshore Crude Processing**

2022

ZERO Fuel Oil Generation & Products

Specialty Products

Foray into

Entry into Olefins
Manufacturing

Propylene Supply

To adjacent Borouge

Boosting Gasoline Fuel properties

Maximizing Polymer **Grade Propylene**

High Quality Distillate Fuel **Production**



Distillation, **Hydrotreating & Hydrocracking**



Resid Fluidized Cat Cracking

2015



Alkylation & Isomerization



Olefin Conversion & Propane Dehydrogenation



Carbon Black Unit

Specialty Carbon

Black product



2017

Boosting

Distillates Yield

"Ruwais Refinery (West) configuration introduces new products in ADNOC Refining's portfolio and ensures value maximization "

FOCUS ON PEOPLE



People Development - Expertise

- Field experts at Sites
- Staff Competency Management process
- Employee Exchange programs.
- Young employee programs
- People Efficiency
- People Incentives

Organization Efficiency

- Centralization & Integration of Support Functions & Accountabilities
- Inventory Management (Indirect Materials)
- Procurement process simplification
- Financial Management
- Change Management
- Best in class IT infrastructure



HSE, ASSET INTEGRITY & OPERATING EFFICIENCY



HSE & Process Safety

- Leadership presence and commitment
- Process Safety programs Safety Behavior culture
- Integral to all personnel roles (in appraisal system etc.)
- Rigorous compliance to all Control Procedures

Operations & Maintenance

- Turnaround Execution & Planning (Duration & Interval optimization)
- R&D applications and developments (catalyst & yield optimization)
- Asset Integrity and Reliability Management
- Operator Multitasking performs/supports minor Maintenance activities
- Maintenance outsourcing
- Streamlined Administration



STRATEGIC PARTNERSHIPS

Exploring potential Long-term Strategic Partnerships Focus on identifying complimentary attributes

- People
- Technological strength
- Future Projects
- Resources & Feedstock optimization
- Best Practices and Operating Efficiencies
- New Markets
- Cultural-fit



WHAT ELSE DO WE NEED?



OUR MINDSET



Are you ready?



Challenges = Opportunities



THANK YOU