

Abu Dhabi Oil Refining Co. (TAKREER)



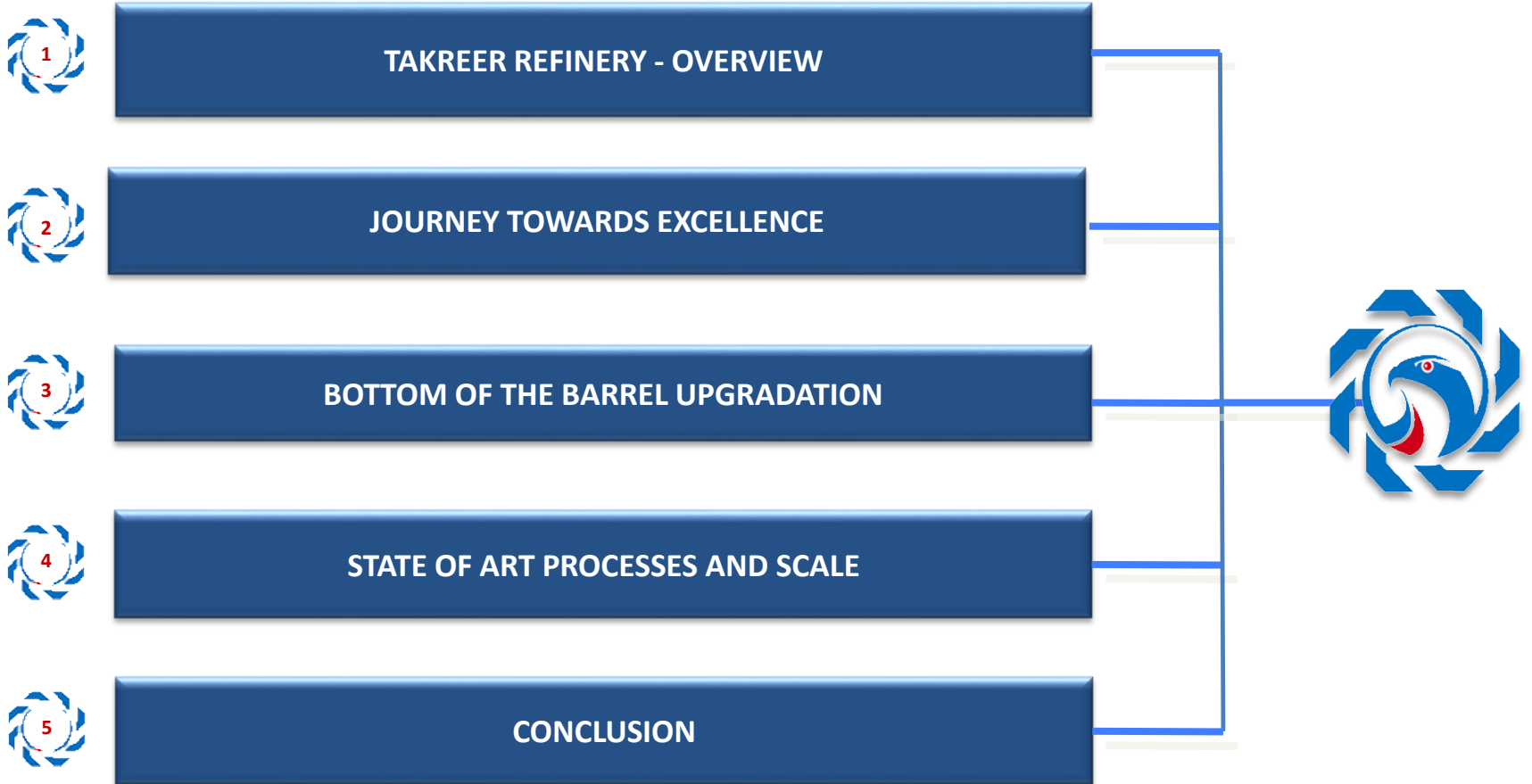
Zero Fuel Oil Production

*The 35th JCCP International Symposium,
January 26 , 2017 – Tokyo*

By : Dr. Hasan Karam

Senior Vice President – Ruwais Refinery (East)

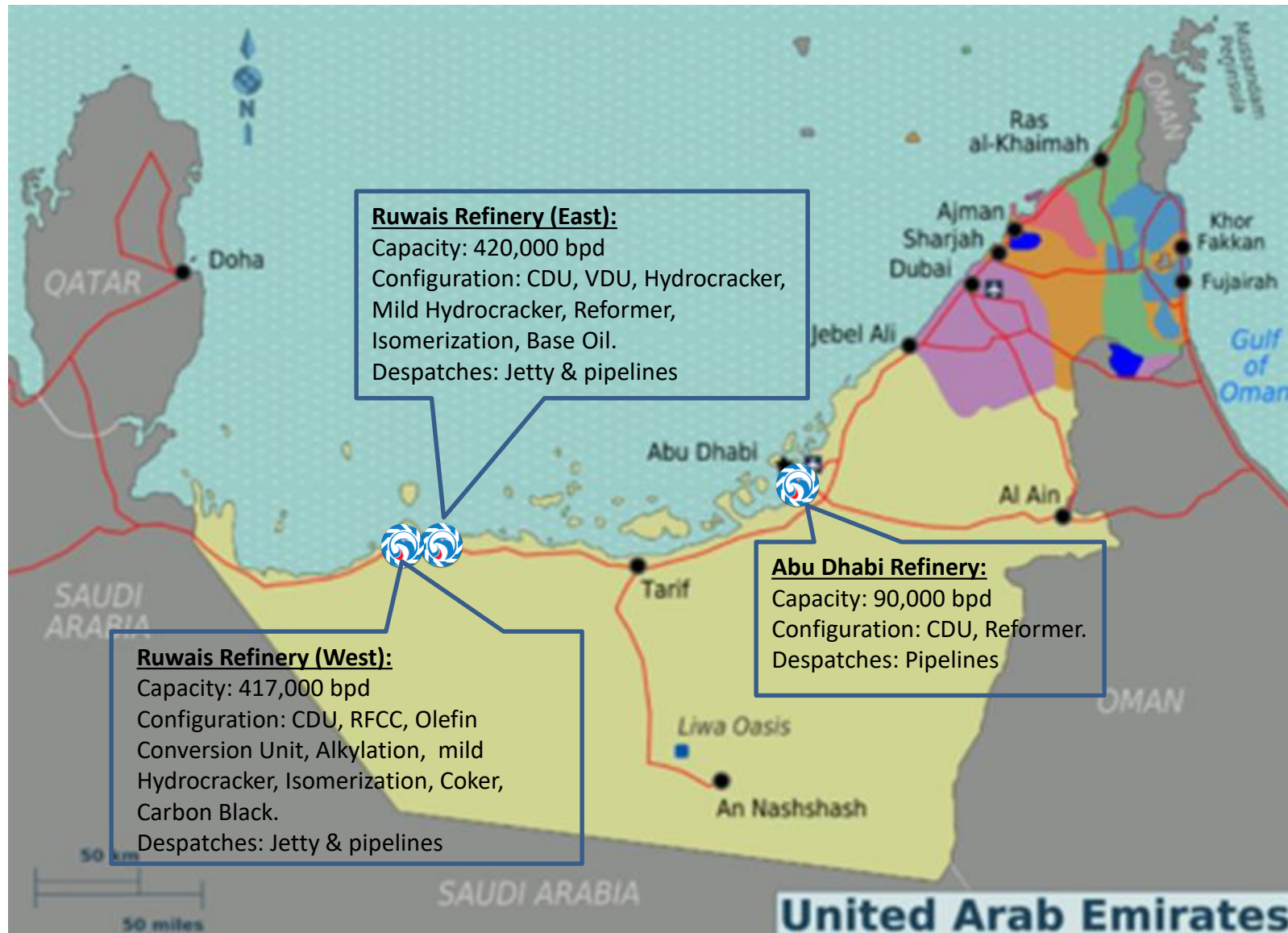
VCMStudy.ir



TAKREER REFINERY OVERVIEW



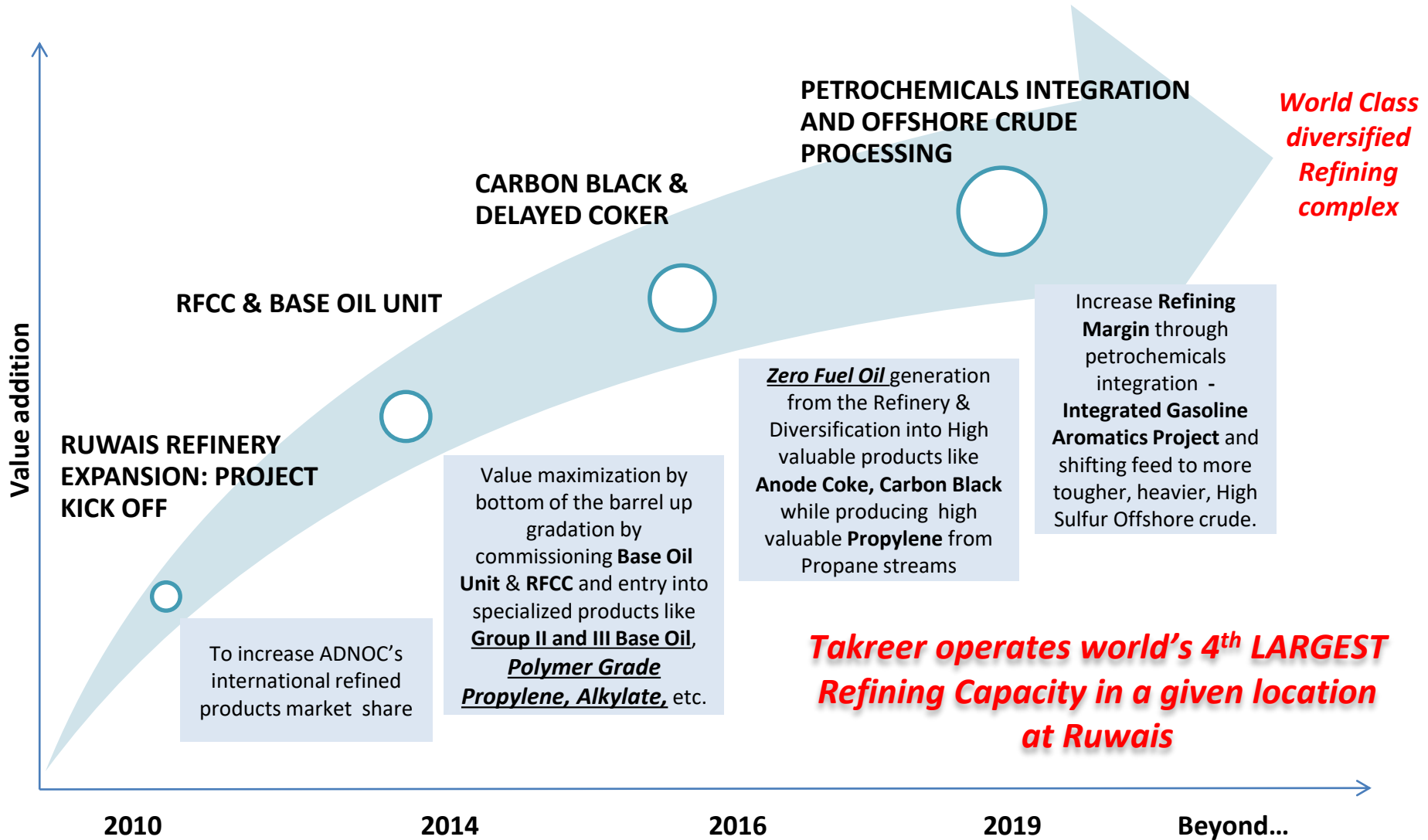
TAKREER'S REFINING CAPACITY



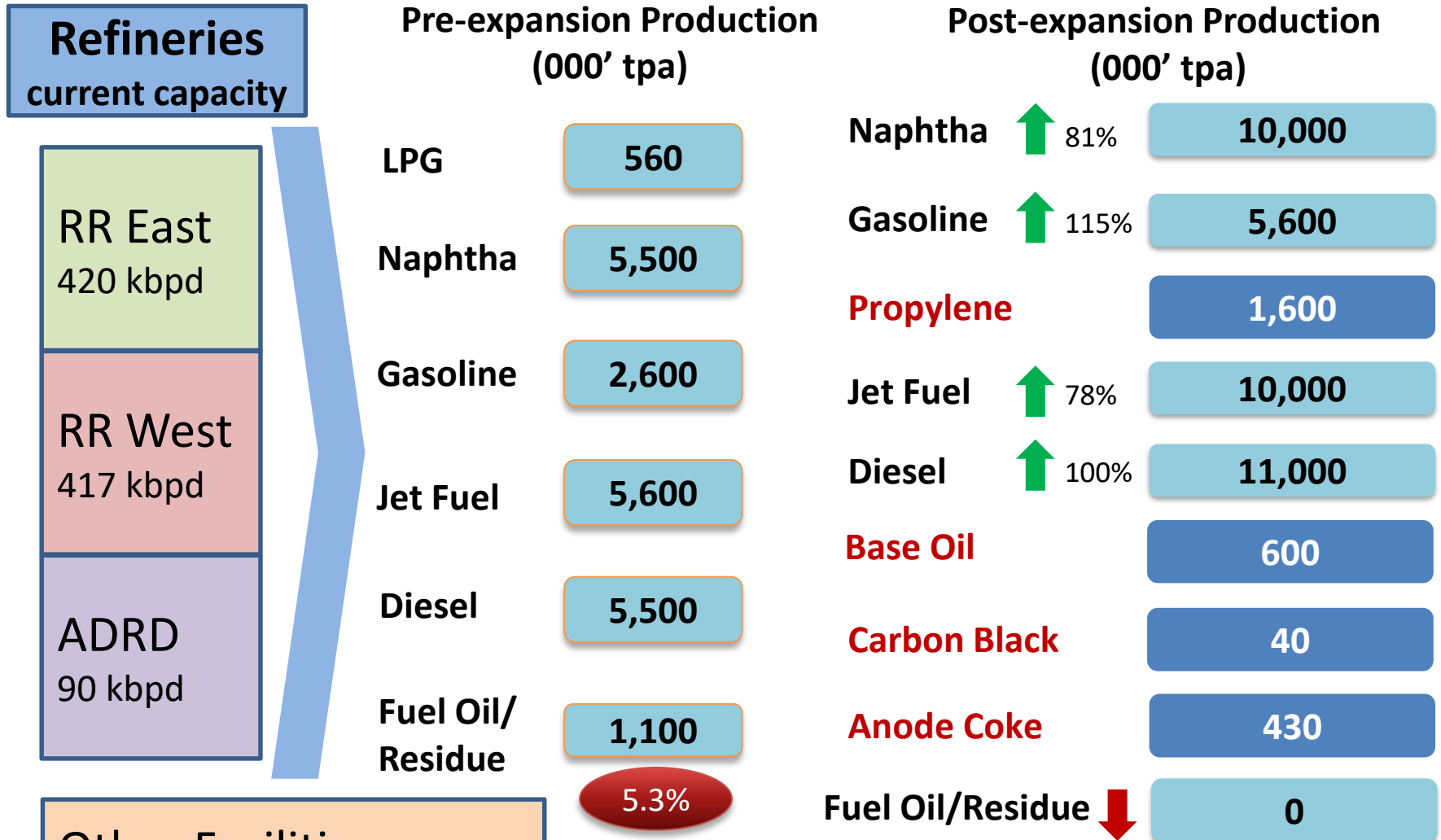
JOURNEY TOWARDS EXCELLENCE



TAKREER JOURNEY TOWARDS EXCELLENCE



TAKREER'S REFINING CAPACITY



Other Facilities:

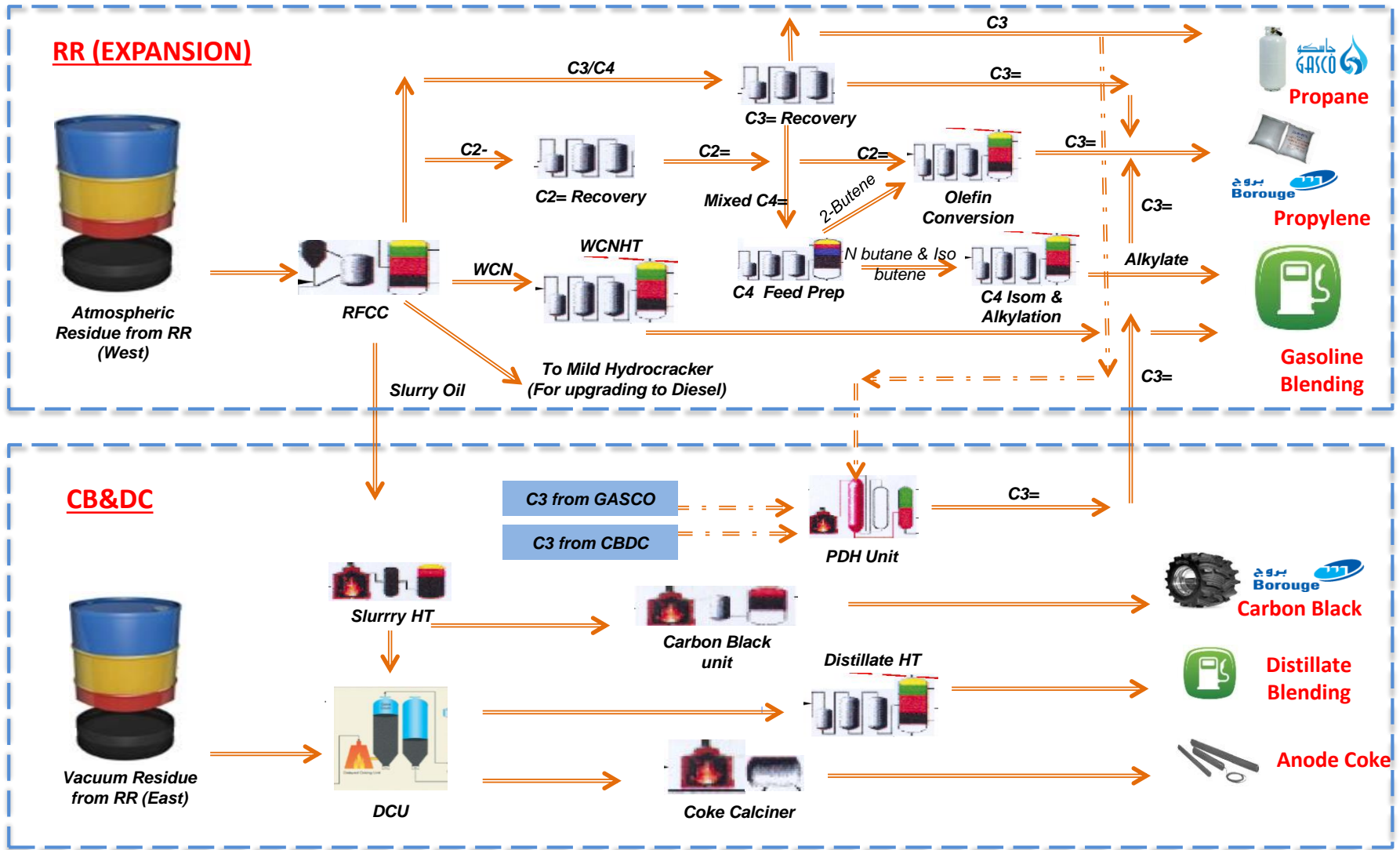
Power – 660 MW
Desal Water – 14 MM Gallons/day
Waste Treatment (BeAAT) – 26 KMT/year

Refinery Expansion and Fuel Oil reduction
resulted in increase of more than **USD 10 billion**
per annum in Gross Product Worth

BOTTOM OF THE BARREL UPGRADATION

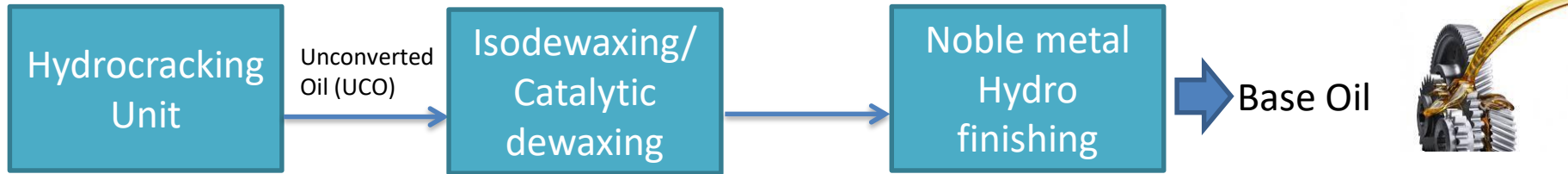


BOTTOM OF THE BARREL STRATEGY – HEART OF REFINERY & PETROCHEMICAL INTEGRATION

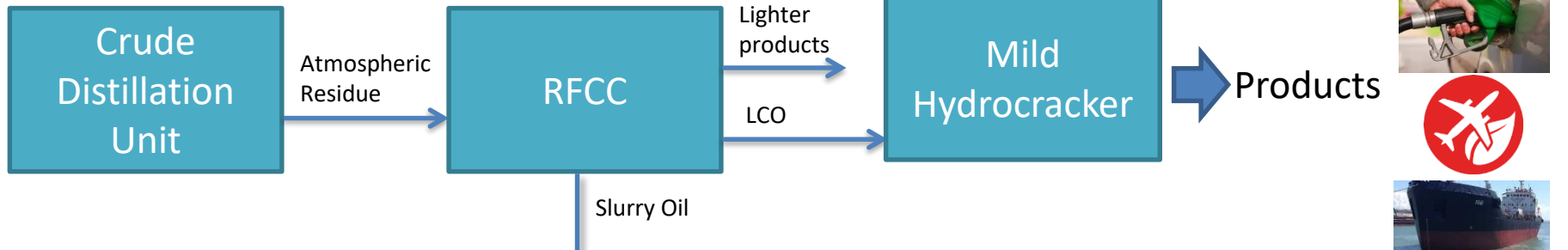


BOTTOM OF THE BARREL STREAMS ARE CONVERTED TO HIGH VALUABLE PRODUCTS – Processes involved

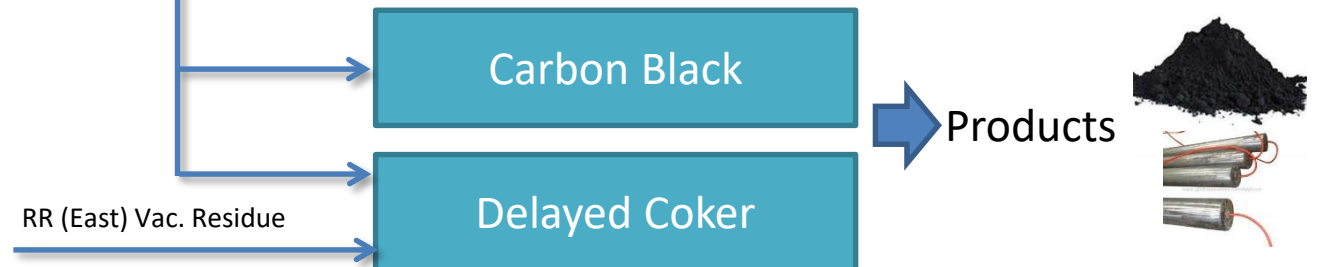
Base Oil Unit



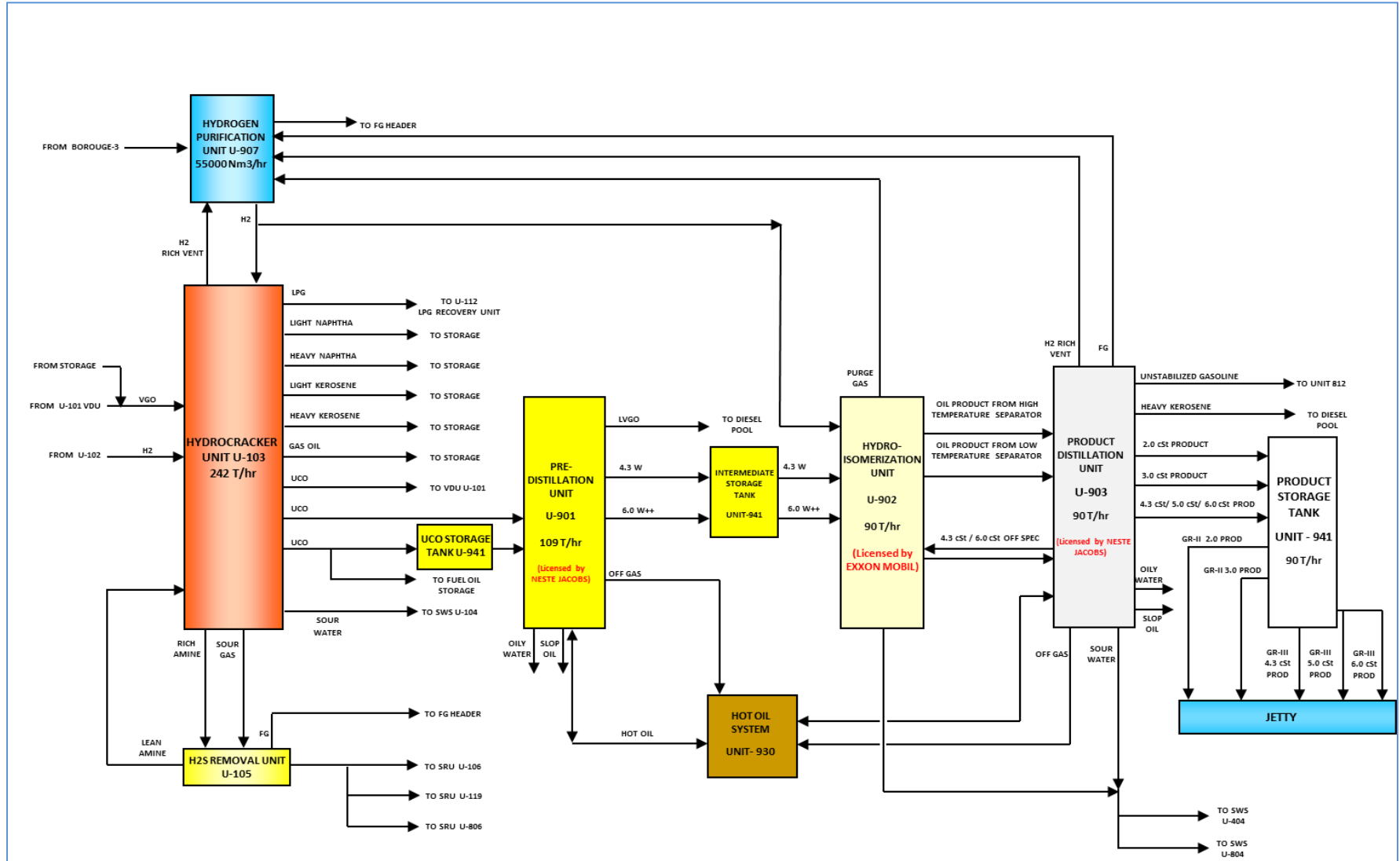
Residual FCC (RFCC)



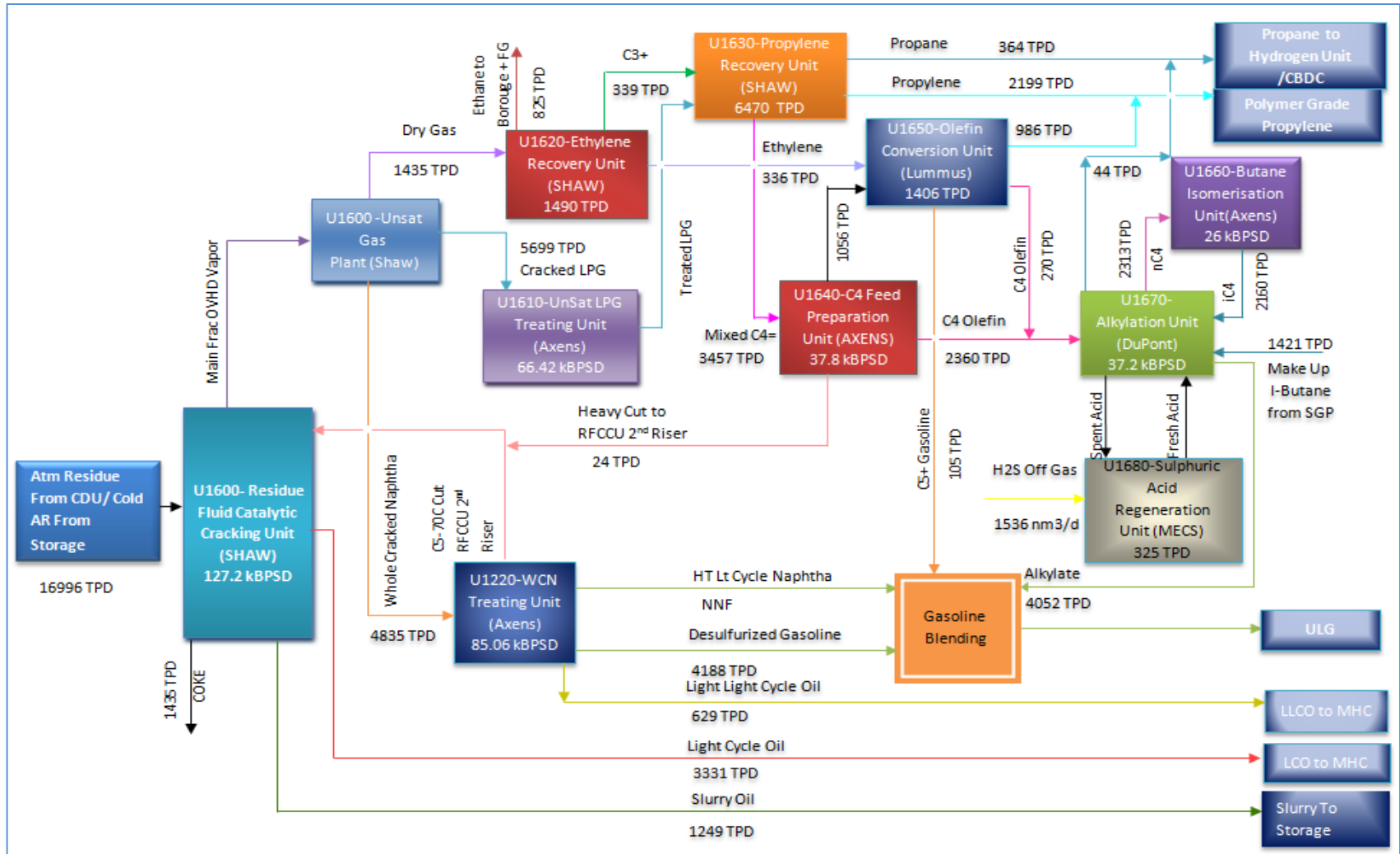
Carbon Black & Delayed Coker



BLOCK FLOW DIAGRAM OF BASE OIL UNITS

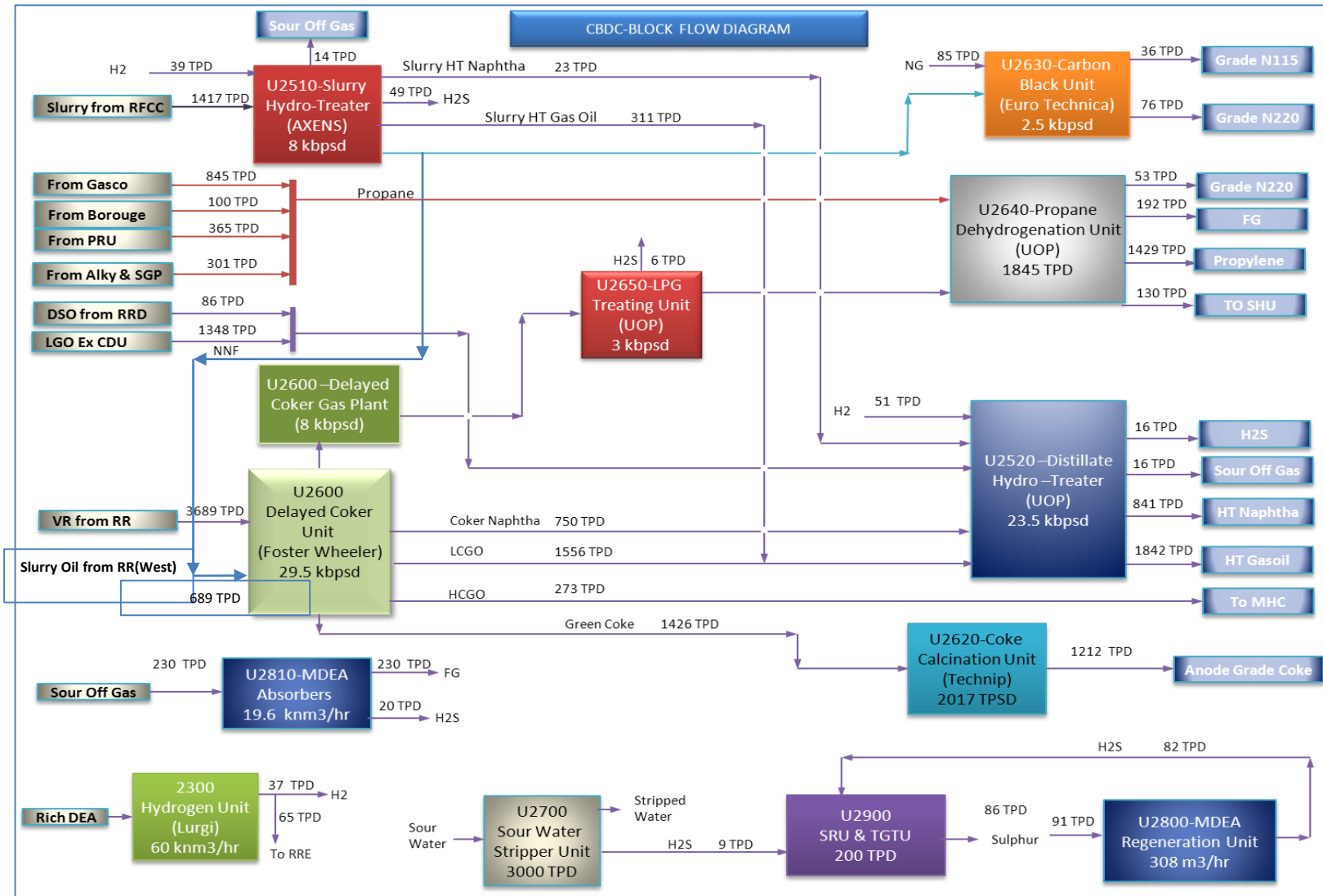


BLOCK FLOW DIAGRAM OF RFCC UNITS



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BLOCK FLOW DIAGRAM OF CBDC UNITS



STATE OF ART PROCESSES AND SCALE



RUWAIS REFINERY EXPANSION HAS STATE OF THE ART TECHNOLOGIES

BASE OIL UNIT	Latest technology minimizing CAPEX & OPEX, improve catalyst life, quality base oil, higher Viscosity Index, low pour point, higher yields, producing Grp. II and III base oil stocks
RFCC	World's Largest unique Petrорiser to boost Propylene Yield
SLURRY HYDROTREATER	First Licensed Unit in the world
CARBON BLACK	Produces N-220 (UV Grade) & N-115 (Semi Conductive grade) carbon black
DELAYED COKER & CALCINER	Converts low value VR from RR-E and Slurry Oil to High Value Anode Grade Calcined coke
PROPANE DEHYDROGENATION	Converts Propane from RRE, RRW, GASCO, BOROUGE to Polymer Grade Propylene
ARDS (POCP)	12 reactors to de-sulphurize Atmospheric Residue from Upper Zakum crude and feed to RFCC

CONCLUSION



Ruwais Refinery expansion project has helped ADNOC achieve its Strategic Objectives through:

- Value Maximization and improve profitability:
 - Reduction of Fuel Oil production
 - Production of quality feedstock for petrochemicals, Lube Oil & Coke
- Achieve improved performance & efficiency through optimal use of assets and natural resources – re-routing of heavier residues to upgrading units and processing of relatively distress crude oil in future
- Enhance technical knowhow of work force through use of state of art process & technology
- Contribute to Nation's Development

Thank You