

Industrial Investment Opportunities







Acetic Acid Production

Acetic acid production plant involves the utilization of carbon monoxide and methanol as raw material via Cativa Process using iridium-complex catalysts to produce acetic acid with high

Investment case

- Setup large scale an Acetic Acid
 Production facility in the UAE
- Investment size = AED 1.5 Bn
- Plant capacity = 375,000T per year
- Expected IRR = 12%
- Expected NPV = AED 885 Mn



2027

2032

2022

Global trends & demand drivers

- Growing range of acetic acid derivative applications such as packaging, pharmaceuticals, and textiles
- Increased and consistent development of the polyester industry in Asia is expected to drive the already-fast growing production of Purified Terephthalic acid (PTA), one of the acetic acid's downstream products
- China's economic development and urbanization and its growing middle-class have increased demand for a wide range of polymers and chemicals including acetic acid derivatives; which account for 53% of expected demand
- Continuous improvements in acetic acid production technologies have increased the popularity of methanol carbonylation, which accounts for 85% of global acetic acid capacity
- Growing range of uses of acetic acid in the pharmaceutical sector in the region is expected to drive demand for its derivatives such as acetic anhydride which is used in manufacturing vitamins, antibiotics, hormones, and other products





Acetic Acid Production

Value Chain Analysis

Raw Material and Energy	Reactor	> Catalyst Recovery	Distillation & Drying End Use & Distribution	
 Required raw ingredients are methanol and carbon monoxide (generated from gas) Specific amount of water is needed for the reaction, which is generated in situ by reaction of methanol with hydrogen iodide 	 The raw material is injected into the first reactor and then into a secondary reactor Cativa process requires less water; water-gas shift reaction is limited, hence, fewer by-products are formed High localization in UAE 	The product released from first and secondary reactors are injected into a flash tank that is catalyst rich for stream recycling Mid localization in UAE	 Product is then injected into the drying column and then into "Heavies" removal column Propionic acid is substantially lower in the generated acetic acid; less energy is required to purify the final product and lower overall production costs Limited localization in UAE Main derivatives of acetic acid are Vinyl Acetate Monomer (VAM); Purified Terephthalic Acid (PTA); Ethyl Acetate; Acetic Anhydride Acetic Acid has various chemical, pharmaceutical and F&B use cases 	

Value proposition

- Wide availability of needed raw material (Methanol) locally within the UAE
- Growing global demand for Acetic Acid is driven by it's wide range of uses, and demonstrated decarbonization potential
- Unlocks new local manufacturing and value-add export opportunities downstream of ADNOC

Enabling Entities

- TAZIZ: The facility can be established near or in TAZIZ to exploit efficiencies in logistics and tap into existing production of methanol. In return reducing operational costs
- EDB: Competitive debt pricing will help lower WACC and in return improve Internal Rate of Return and pay back period
- ADNOC: ADNOC's recent partnership with Proman will be key in the supply of raw materials. A similar model can be implemented for Acetic Acid production