Industrial Investment Opportunities

Mechanical Recycling (rPET)

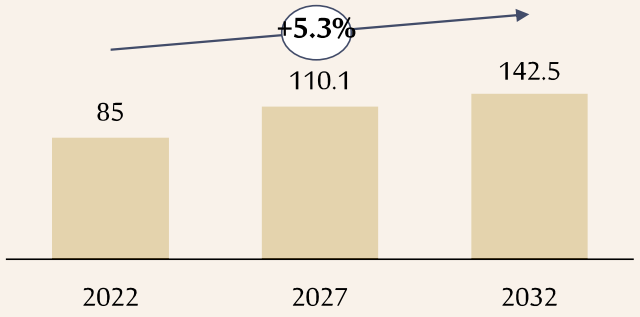
Mechanical Recycling (rPET)

Mechanical Plastic Recycling Facility for PET involves the collection and sorting of waste, which is later shredded, dried, and extruded into recycled pellets

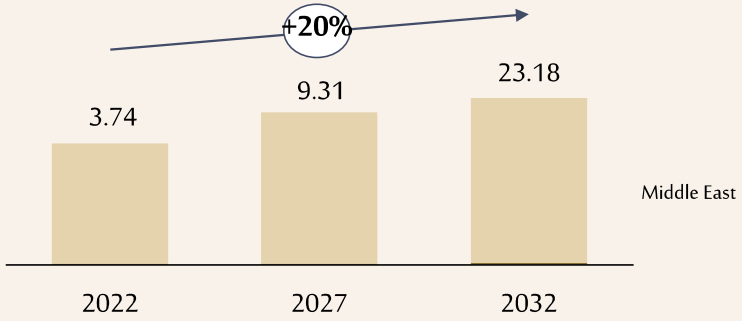
Investment case

- Setup a large-scale PET mechanical recycling of facility in the UAE
- Investment size = AED 101 Mn
- Plant capacity = 22,000T per year
- Expected IRR = 12%
- Expected NPV = AED 58.4 Mn

Global Market Size 2022 – 2032 (Bn AED)



Regional Market Size 2022 – 2032 (Bn AED)



Global trends & demand drivers

- Manufacturing bottles from rPET requires only half of the energy compared to new PET.
- Plans of imposing taxes on carbon emissions. Using rPET can reduce the green gas house emissions by 2 to 3 kg eq. (CO_2/kg).
- Product mandates for minimum-recycled content will support higher recycled PET prices heading into 2022.
- The growing beverage industry and increased demand for (rPET) in non-food sectors.
- Introduction of regulatory frameworks for use of rPET will create the necessary environment for its adoption.
- Local players in the F&B space are looking to reduce their Carbon Footprint and National mandates are aiming to divert waste from landfills.

UNITED ARAB EMIRATES
MINISTRY OF INDUSTRY
& ADVANCED TECHNOLOGY

MAKE IT IN THE EMIRATES

Mechanical Recycling (rPET)

Value Chain Analysis

- Required feedstock necessary for plant to operate at fully capacity is not available; segregation of waste is needed to extract plastic waste from landfill
- This includes the shredding of plastic waste into smaller sized pellets
- Shredded pellets are then cleansed and dried of any waste residue
- The cleansed pellets are then heated at 200 C
- Manufacturing bottles from recycled pellets requires less than half of the energy exertion compared to new PET.

High localization in UAE | Mid localization in UAE | Limited localization in UAE

Value proposition

Short Term	• Capture 22kt/yr of feedstock • Facility has capacity to produce 14kt/yr of rPET, assuming an efficiency of 65% 2 • Potential revenue of ~$26M p/A @ 100% capacity • Be the first producer of recycled PET locally
Medium-Term: (~3years)	• ~45% of unutilized Feedstock unlocked • Laws limiting exportation of plastic waste introduced • Regulation introduced which drives demand • Additional capacity available for recycling
Long-Term: (+5years)	• ~65% of unutilized Feedstock unlocked • Sourcing and sorting infrastructure of local waste will increase feedstock availability

Enabling Entities

- **KIZAD**: Establishing a facility inside an industrial zone will lower barriers of entry into new market by reducing new company set up costs, lowering operating cost and provide seamless market accessibility (linked to Khalifa Port)
- **Khalifa Port**: Facilitates companies exporting revenue stream and helps position it as a regional and international player
- **EDB**: Competitive debt pricing will help lower WACC and in return improve Internal Rate of Return and pay back period
- **Ministry of Climate Change & Environment**: Put in place the right regulations and standards for the use of rPET in food packaging
- **MoIAT:** Working on amended regulations to allows the use of rPET in food packaging