



UNITED ARAB EMIRATES  
MINISTRY OF INDUSTRY  
& ADVANCED TECHNOLOGY

# Industrial Investment Opportunities



Solar inverters opportunity



# Solar inverters

Solar inverters are equipment that convert direct current into alternating current



## Product description

- Solar panels generate direct current (DC) electricity which needs to be converted into alternating current (AC) electricity for use in homes and businesses or before being transported
- Solar inverters convert DC to AC electricity and are used in transforming stations that are located near solar farms
- Additionally, solar inverters maximize energy production, monitor the system's output, communicate with the grid, and detect damaging system faults
- Solar inverters include various products such as:
  - Central inverters
  - String inverters
  - Micro inverters

## Main applications

- Residential
- Commercial (retail stores, malls, hospitals, offices, and schools)
- Utility



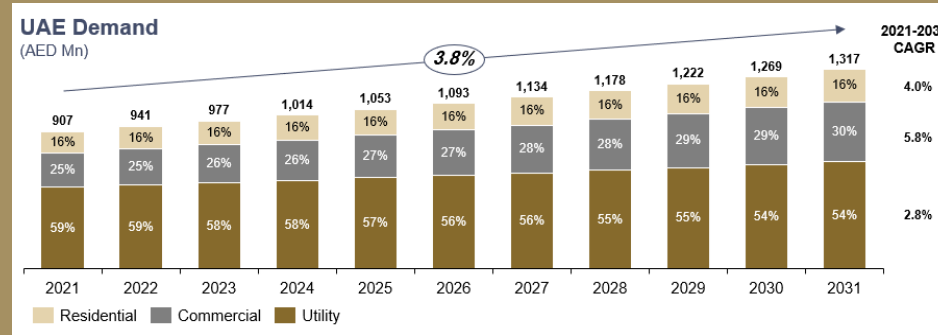
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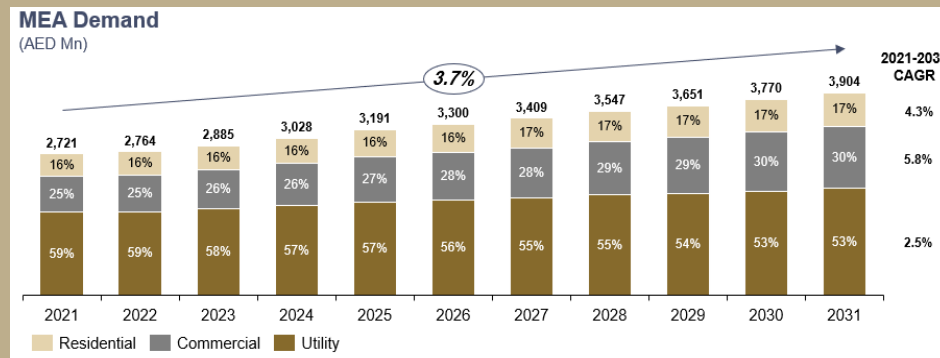
## Investment Case

- Setup medium-sized facilities<sup>1</sup> focused on product assembly of solar inverters. Sourcing components (e.g., capacitors, semi conductors, circuit board, casing) from local and global sources.
- **Investment Size:** AED 45 – 55 Mn
- **Plant Capacity:** 10,000 – 10,500 units/ year.
- **Work Force:** 65 – 70 employees
- **Expected IRR:** 15%
- **Expected NPV (10 Yrs) :** AED 65Mn
- **Payback Period:** 11 Yrs

The UAE demand for Solar inverters is expected to grow at 3.8% p.a.



The MEA demand for f demand for Solar inverters is expected to grow at 3.7% p.a.



## Key market trends

### Sector trends

- Increased renewable energy demand, lower solar equipment costs, gov't aid and support, and the demand for energy security and decarbonization
- The utility segment is the largest segment given increasing PV plant projects (e.g., In the UAE, Solar PV Independent Power Producer project at Al Dhafra)

### MEA trends

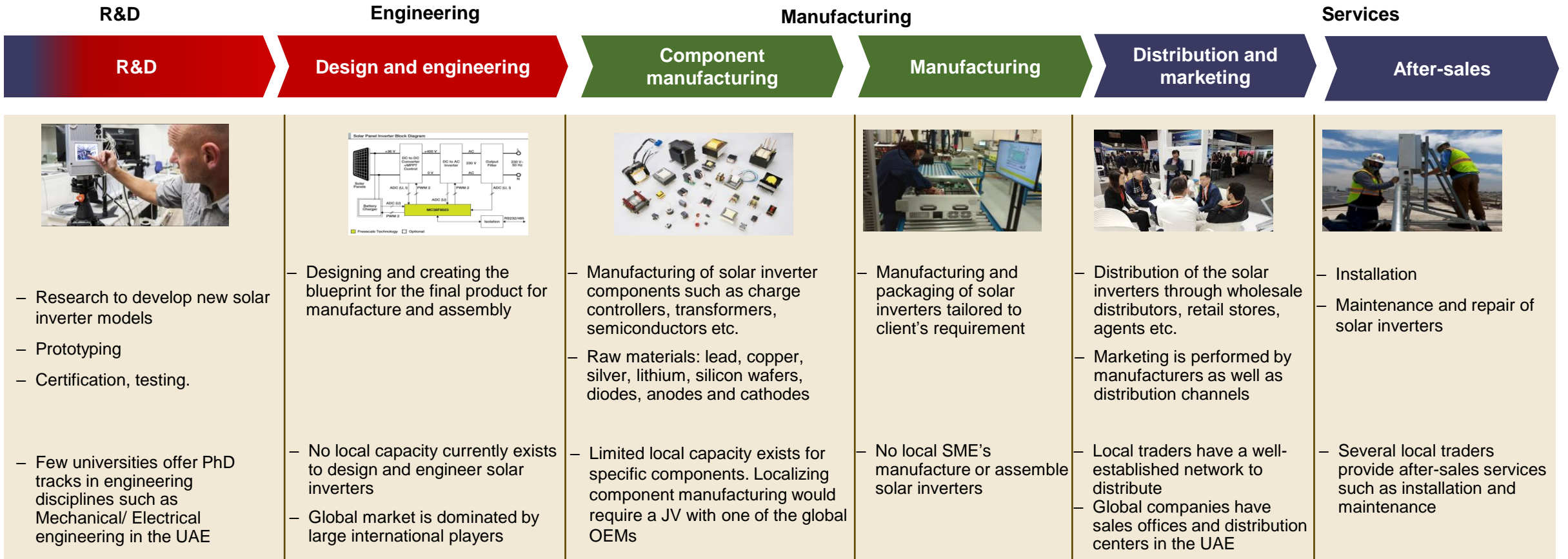
- Solar inverter market growth is driven by:
- Increased investments in renewable energy supported by favorable gov't policies, and ambitious targets

### UAE trends

- Solar inverter market growth in the UAE is driven by:
- UAE renewable energy goals that aim to increase the contribution of clean energy to the total energy mix to 50% by 2050
- High potential for solar radiation due to geographical location: ~2,285 kWh/m<sup>2</sup> of annual solar radiation – one of the best in the world
- Increasing PV plant projects:
- Jan 2021: UAE gov't signed deals to construct 7 solar plants with a combined capacity of 3,7GW<sup>1</sup>
- Solar PV Independent Power Producer project at Al Dhafra – worlds largest single site solar power plant

## Solar Inverter Value Chain

UAE's capabilities in the solar inverter value chain are focused largely on distribution and marketing. No capabilities exist in manufacturing



High localization in UAE

Limited localization in UAE

Focus of manufacturing plant to set up

## Food ingredients and concentrates



### Value proposition

- Strategic location that can act as a dispatch hub for MENA
- UAE ranked 16<sup>th</sup> globally in Ease of Doing Business (WB)
- UAE ranked #10 globally for world class infrastructure in (LPI)
- High quality of life attractive for skilled talent
- 100% foreign business ownership and low VAT (5%)
- Competitive costs of licensing costs and work visas (under process)
- Strong logistics infrastructure - UAE has busiest ports in MENA region strategically located and enable seamless flow of trade across a region of more than 3.5bn.



### Enablers

- Up to 80% project financing by Emirates Development Bank
- 2-year grace periods and low interest-rate loans for CAPEX, working capital, and supply chain financing.
- Export credit and insurance via Etihad Credit Insurance and AD Exports
- Access to Free Trade Agreements with high-growth markets such as GCC, Arab countries, Egypt, India, Jordan, Israel, Indonesia, and others
- Customs exemptions for raw materials
- 53% of UAE's exports are to countries with no import duties (GCC countries and other GAFTA countries with FTAs)