

FACT SHEET

MILESTONES & TIMELINE

- **January 2016:** BEEAH and Masdar begin exploring waste-to-energy opportunities
- **January 2017:** BEEAH and Masdar establish Emirates Waste to Energy as a joint venture
- **2017:** The Sharjah Waste to Energy plant becomes the venture's inaugural project and a groundbreaking ceremony is held
- **2018:** Financial close with \$162 million secured from a consortium including Abu Dhabi Fund for Development, Standard Chartered Bank, Abu Dhabi Commercial Bank, Siemens Financial Services, Sumitomo Mitsui Banking Corporation and Commercial Bank of Dubai
- **May 2019:** France-based CNIM wins the design, build and operate contract for the plant and piling work follows
- **April 2022:** Construction is completed
- **May 2022:** His Highness Sheikh Dr. Sultan bin Muhammad Al Qasimi, Supreme Council Member and Ruler of Sharjah, inaugurates the plant

EMIRATES WASTE-TO-ENERGY

- A joint venture between BEEAH Energy and Masdar with 50/50 ownership
- Tackling the challenge of unrecyclable waste while contributing to the national clean energy mix
- Driven by a zero waste and net-zero in the UAE, as well as across the region
- Realising Sharjah as the Middle East's first zero-waste city

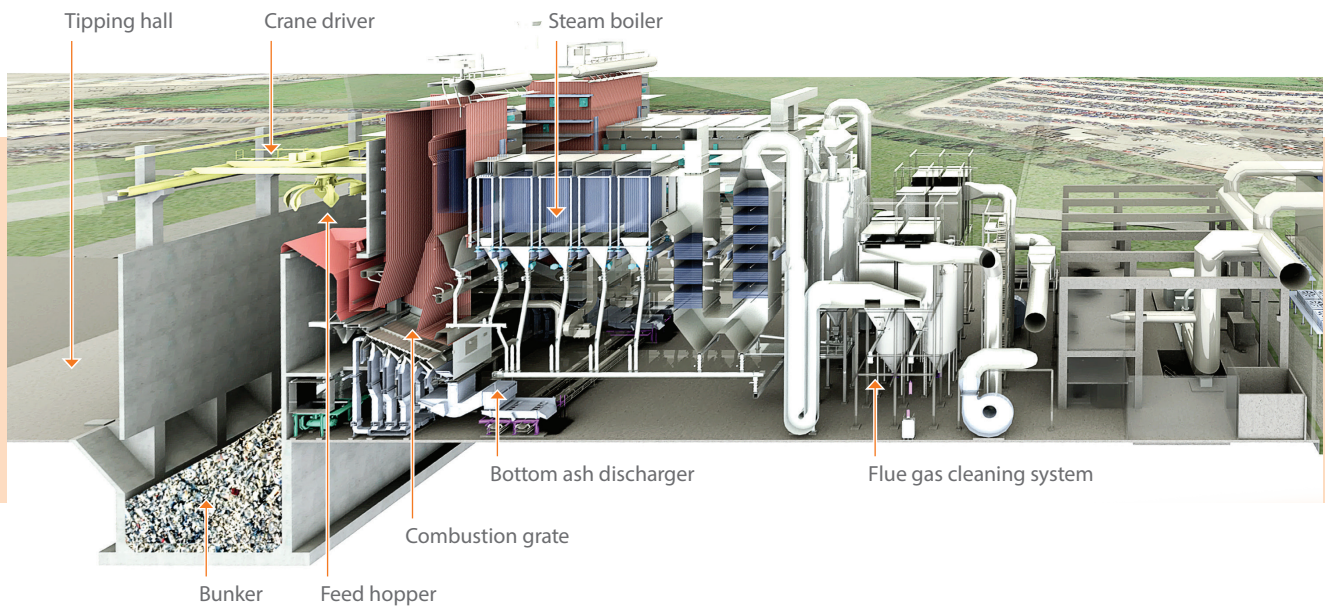
THE SHARJAH WASTE TO ENERGY FACILITY

- First of its kind in the UAE, among the first in the MENA region and the first project of Emirates Waste to Energy
- Generating 30 MW of low carbon power and contributing directly to the Sharjah grid, powering the equivalent of 28,000 homes
- 80,000 sq. meter plant adjacent to BEEAH Recycling facilities for easy transfer of unrecyclable waste
- Capacity of more than 300,000 tonnes of unrecyclable industrial and municipal solid waste per year at a rate of 37.5 tonnes per hour
- It will displace almost 450,000 tonnes of CO² emissions per year
- Conserving up to 45 million m³ of natural gas per year
- Design, build and operation by CNIM, France-based industrial contractor, following the European Union's Best Available Techniques
- A host of safety and cybersecurity features enable safe operations for personnel and in connection with the grid

SHARJAH WASTE TO ENERGY FACILITY PROCESS OUTLINE

1. After segregation at BEEAH Recycling's Material Recovery Facility, residual unrecyclable waste is transported to the adjacent
2. Incoming waste is weighed at the weighbridge
3. Waste is unloaded into the waste bunker
4. Waste is fed into the boiler
5. Flue gas is generated in the boiler at a temperature of 1000° C
6. Waste processing is controlled by the operation of Martin grates
7. Flue gas passing through boiler water walls. heats up water creating high-pressure steam
8. Bottom ash resulting from waste processing is collected and potentially reused for construction and road-base purposes
9. Fly ash is collected and treated separately
10. Flue gas is treated by cleaning and removing the toxins and pollutants
11. Energy is generated by a steam turbine generator and supplied to the Sharjah power grid
12. Steam is condensed in the air-cooled condenser and the condensate is reused in the process; creating a closed loop cycle

WASTE TO ENERGY PLANT OVERVIEW



AWARDS

- 2018 Thomson Reuters Project Finance International (PFI) Award for Clean Deal of the Year in Middle East and Africa
- 2018 Structured Loan Deal of the Year Award at the Bonds, Loans and Sukuk Middle East Awards
- 2018 IJ Global MENA Waste Deal of the Year
- 2019 Clean Energy Initiative of the Year at the Middle East Energy Awards

THE FUTURE OF EWTE IN THE UAE & ACROSS THE MENA REGION

- Emirates Waste to Energy plans to establish more plants across the UAE and Middle East, leveraging the pioneering impact of the Sharjah Waste to Energy plant
- EWTE is exploring collaborations with international and local entities, including the UAE Ministry of Climate Change and Environment and Ministry of Energy and Infrastructure

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