



PLANT FOR THE **TREATMENT OF OFMSW** (ORGANIC FRACTION OF MUNICIPAL SOLID WASTE) AND **M.S.W** (IN A STAND ALONE CONFIGURATION) IN CALATAFIMI

The project concerns the construction of a plant in a stand-alone configuration, consisting of both anaerobic digestion section of the organic fraction deriving from the separate collection of urban waste (OFMSW) with bio-methane production (energy recovery) and quality compost (material recovery) and a mechanical-biological treatment section of mixed municipal solid waste (M.S.W) for the recovery of materials / products and energy for the plant's self-consumption. The plant has a maximum treatment capacity of 65.000 t/year for the OFMSW treatment section and 80.000 t/year for the M.S.W treatment section. The project therefore envisages the conduct of waste management operations R3 - R4 - R13 - D8 - D13 - D15 as indicated in Annex B and C of the fourth part of Legislative Decree 152/2006. The activities that take place within the plant can be divided as follows:

A. OFMSW TREATMENT SECTION

- Mechanical pretreatments;
- Anaerobic digestion, biogas production, biomethane refining;
- Production of quality compost.

B. M.S.W TREATMENT SECTION

- Mechanical separation treatments;
- Anaerobic stabilization, biogas production, energy cogeneration;
- Aerobic biostabilization of organic waste ;
- Material recovery;
- RDF production.

The organic treatment of OFMSW produces a high quality compost equal to about 21.000 t/year and biomethane production equal to about 490 Sm³/h. In the M.S.W treatment section we obtain a quantity of stabilized organic fraction (O.F) about 19.000 t/year, recyclable materials about 22.000 t/year and a biogas production about 430 Nm³/h.

DESIGN DATA

Private client OWAC S.R.L
Type of service Definitive design
Project cost € 36.830.000,00
Location Calatafimi - Segesta (TP)
Tot area 66.750 m²
Design period 2018

TECHNICAL DATA

OFMSW treatment section
Capacity: 65.000 t/year
Process duration: 90 days
Anaerobic digester: No.2, 1.800 m³ each
Bio-cells for aerobic stabilization: No. 9, 500 m³ each
Maturation of basement: No. 4, 2.400 m³ each
Compost produced: 21.200 t/year
Biomethane produced: 490 Sm³/h

MSW treatment section

Capacity: 80.000 t/year
Duration for stabilization of organic fraction: 38 days
Aerobic bio-cells: No. 7, 400 m³ each
Bio-cells anaerobic: No. 4, 400 m³ each
Post-treatments: pressing of plastic material and shredding for RDF
Stabilized organic fraction produced: 19.200 t/year
Recoverable plastics produced: 21.300 t/year
Recoverable metals produced: 800 t/year
Biogas produced: 430 Nm³/h

