

Success Story 3

Customer Choose to come back ENN Because of Trust in Products and Services

Zhejiang Lanxi Best

Phase II Drying Project (Cogeneration of Heat (Steam) and Power, (CHP))

Project Overview /

Lanxi Best is the first market user of ENN's micro gas turbine. During the production process, the factory produces a large amount of waste. The waste surface is paste-like and its moisture content is over 70% which belongs to solid hazardous waste with high moisture. In the past, the waste was stored in the warehouse before being transported to a treatment plant which occupied storage space. The greater the moisture content of the waste, the higher the freight and processing cost. The waste handling was a large cost of the enterprise. As a daredevil user, the company has experienced the various benefits brought by micro-gas turbine solutions. Lanxi Best hoped that the waste could be dried through the CHP solution to reduce the processing cost.

According to the customer situation, a set of E135-R recuperated cycle units is selected. A drying equipment is purchased in order to use high-temperature flue gas drying. This CHP solution consists of one micro gas turbine and one dryer. The moisture content of waste dropped from 70% to 25%.

The ENN solution not only solves the problems of customers with large water content of waste and occupation of storage space, but also reduces the transportation and treatment costs of waste.



Applicable Industries

- Electroplating



System Components

- one E135-R micro gas turbine + one dryer



Delivery Time



- April, 2020



Location

- Lanxi, Zhejiang

► KEEP ORIGINAL ENERGY SOLUTION /

-  The waste residues (hazardous solid waste) with moisture content up to 70% generated by the on-site electroplating process were transported to the storage yard via trolley, and subsequently transported to the treatment plant by the transport company.
-  The average electrical load was 400 kW.

► CUSTOMER'S PAIN SPOTS /

- 1 Large output of waste residues with high moisture content occupies large storage space, and negatively impacts the environment;
- 2 Heavy workloads for manual transportation of waste residues to the storage yard via trolley;
- 3 High freight and treatment cost of waste .

► SOLUTION /

- The CHP system with one E135-R micro gas turbine and one dryer is used; the original electroplating process is connected to the dryer; dried waste residues are sealed in bags to save space and avoid dust pollution;
- Waste residues generated by electroplating process are conveyed to the dryer via screw feeder to the storage yard to reduce labor costs;
- The moisture of waste reduces from 70% to 25% and the waste transportation and handling costs are greatly reduced.

► CUSTOMER BENEFITS /

01 Reduce warehouse occupation



Original storage is freed and becomes dust-free, which can be used for other purposes

02 Reduced labor



No need to manually transport the electroplating process materials, the original labor required is eliminated.

03 Lowered cost



Waste treatment capacity: **1,155** ton/year;

Annual power supply: **400,000** kWh/year;

Expansion capacitor **110**kVA;

Saving capacity cost: **50,000** RMB/year;

Saving waste freight and treatment cost: **115,800**RMB/year(**9%** yoy decrease)

Electricity cost dropped: **39,900**RMB/year (**11.1%** yoy decrease)