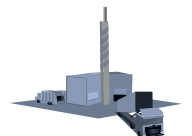


GE

Your favorite partner in Waste to Energy



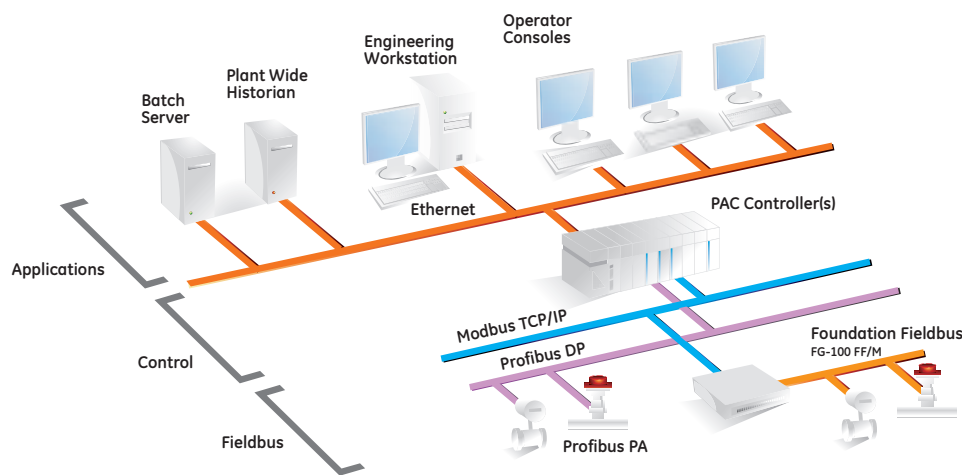
GE imagination at work



GE in Waste to Energy

GE Consumer and Industrial has the capacity to work in the Waste to Energy market with the general contractor, the engineering company, the system integrator or the panel builder to put together an integrated package. GE proposes global and innovative solutions for electrical distribution, industrial controls, automation systems.

GE offers engineering expertise, quality products and services to build a solution to help improve your productivity and profitability. We are listening to your needs by fully understanding your market. Our open-system solutions provide the ability to upgrade in future, improve efficiency and reduce downtime.



POWER DISTRIBUTION

- Low Voltage switchgear
- Low Voltage MCC's
- Low Voltage panelboards
- Bus way
- Uninterruptible Power Supplies (UPS)

Our solutions

Redundant control system: proficient solution system

Applications

- Boilers with security management
- Smoke treatment
- Specific packages (steam turbine control, MV & LV electrical distribution management, utilities, water treatment, grates ...)

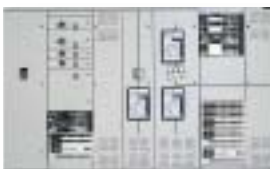
Features

- High availability system
- Open system: Profibus DP-PA-ASi, Ethernet EGD, Genius, Fieldbus foundation
- Different levels of redundancy (Hardware: servers, operator stations, plant network, controllers RX3i & RX7i, I/O. Software: real time database, historical database for points, alarms and events).
- Complete and integrated software suitable for configuration, control and management of the process and to maintain the applications.

CONTROL

- Redundant
- Complete engineering
- Intelligent
- Starters, c

Low voltage switchgear SEN Plus



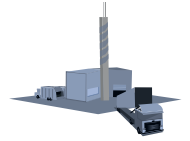
Air circuit breakers



Moulded case circuit breakers



We cover all your needs, to address your most challenging projects in Waste to Energy



SERVICES

- Study, test & commission
- After Sales & Training
- On site & Emergency services by phone and remote connection
- Contractual services
- Parts and repairs

WATER AND FLUE GAS TREATMENT

Complete range of products and services on different processes and parts of a plant:

- Physical pre-treatment
- Chemical treatment
- Post-combustion treatment



STEAM TURBINES

From 5 to 60 MW for electricity production or district heating.

- Condensing / Non-condensing
- Steam extraction or injection
- Compliance with API 612

TOOLS & AUTOMATION

Plant control system
 Full range of software for historical data & trending
 Motor control
 Drives and protection relays

Control devices



UPS



Automation & Supervision



A recent success

Waste to Energy plant of Marchwood (UK)

The Marchwood Waste to Energy plant (2 lines of treatment) has a capacity of 165,000 tpy of MSW - Location: Hampshire (UK) - Fuel: refuse

Low Voltage part

SEN Plus Low Voltage Type Tested Switchgear

12 switchboards, 69 panels

2 compensation panels

126 control boxes and 128 VMS Motor Local Isolators (UVV)

7 Modula Plus distribution boards

UPS, IDF Drive Cabinet, Battery Charger for MV and LV panels

DCS Part: 2500 I/O

2 servers – 3 operators station in redundancy mode with 1 engineer station,

1 report station

10 remote Versamax I/O cabinets, 1 cabinet with 4 controllers in redundant mode,

1 PLS for the turbine

LV network calculations – DCS network installation

Programming, factory acceptance tests, site acceptance test, commissioning service



References

| | | |
|---------------------|-------------------|------------------------|
| Avignon | Cretail | Offenbach |
| BHKW Cargolifter | Druiven | Portsmouth |
| BHKW Wietzendorf | GMVA Oberhausen | Rozenburg |
| Bielefeld | Lahe | Saumur |
| Bilbao-Zabalgarbi | Landkreis Neu-Ulm | Sheffield |
| Chalon-en-Champagne | Marchwood | Stocke on Trent |
| Chaumont | Monthyon | Villefranche-sur-Saône |
| Chineham | Nantes | Wesel |

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GE imagination at work