



Industrial Food
Processing
Energy
Efficiency Tangible



Investor Ready

Energy Efficiency Projects From Waste Heat to Profitable Steam

Implementing progressive ideas and designing innovative solutions for food processing industrial plants to upgrade energy efficiency.



Our Engineering Solutions experts know quite well the extent in which food processing industrial plants 'bleed energy'. Implementation of innovative ideas in that would prevent this bleeding, however, requires deep experience and open minded approach which is opposed to the conventional thinking of many experienced advisors. Our team has 10+ year experience with industrial projects' strategic design that takes into account the feasibility and investability of the proposed plans.

Our added value proposition is targeted to:

- ▶ **analyse** processing data from a plant
- ▶ **quantify** the opportunity and savings potential
- ▶ **design** optimum financeable solution opportunities
- ▶ **attract** third party investors
- ▶ **deliver** turn key implemented projects

Your favoured Savings Our favoured Investments



FLUE GAS

Flue gas releasing is an ancient method of protecting steel boilers from acidic corrosion. 21st Century materials guaranteed to withstand corrosion while producing 20% more usable heat. Investor Payback: 2-4 years. Savings since day #1

MVR

Dismissed vapours from energy intensive processes such as: Drying, Evaporation, Dehydration, Boiling, Frying during food processing are possible to mechanically compress and produce Super-Heated-Steam at a fraction of the cost. Investor Payback: 4-6 years. Savings since day #1

ADSO Cooling

Any cooling system has three hotspots: (a) Recoverable heat and (b) pre-cooling ambient air used for heat dissipation, both reducing the load of the compressor, at low CAPEX and fast payback. The (c) high CAPEX option is a “heat driven” cooling machine, that needs no electricity. This can be combined with hybrid PV-T solar panels or ‘waste heat’. Payback: 0.5 to 6 years. Savings since day #1

SOLAR PV-T

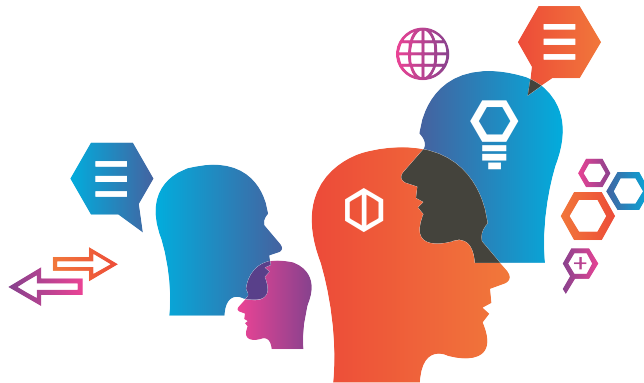
Solar generation should not be misunderstood as identical to PhotoVoltaic panels. 3 times more energy is available from the same surface as high temperature heat. This technology has the advantage of being used in combination to solar cooling and MVR to produce GREEN STEAM. CAPEX is larger though. Investor Payback: 4-7 years. Savings since day #1

GREEN sTEAM

Process steam should be GREEN. Food processing plants can greatly reduce their OPEX and CARBON emissions by implementing combined technologies that provide high quality and low cost GREEN sTEAM without affecting their Quality processes. Investor Payback: 3-6 years. Savings since day #1

“ Holistic energy management implemented by
Energineering Solutions has empowered our project ”

PROF. LOIZIDOU MARIA, UNIT OF ENVIRONMENTAL SCIENCE & TECHNOLOGY
NATIONAL TECHNICAL UNIVERSITY OF ATHENS, LIFE+ EUROPEAN FUNDED project: FOODPRINT.GR



Is your food processing plant Clean Energy powered?

Our holistic approach attracts the right investors to implement modern solutions in conventional food processing plants

Energineering is proud member of the EEFIG for Industry Work Group of DG ENER, actively participating in consulting sessions for the identification and policy making regarding Best Available Techniques and Financing Solutions for Energy Efficiency in the Industry sector.

Our team will uncover Waste Heat Recovery opportunities and will design the path to profitable exploitation for energy intensive processes like:
Drying, Evaporation, Moisture removal, Heating, Preheating, Pasteurisation, Cooling, Freezing



Energy Efficiency Financial Institutions Group

EEFIG: Energy Efficiency Financial Institutions Group of European

Commission Directorate General for Energy (DG-ENER)