

# LA SICILIA

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**Palermo.** Three new machines technologically capable of producing alternative energies presented by a pool of scientists

## From refuse to gas without combustion

**Scholars exploit natural phenomena with zero impact on the environment**

**GIUSY CIAVIRELLA**

Palermo. New methods of producing energy. Plants built by scientists, engineers and physicists, capable of exploiting natural phenomena such as combustion and magnetic fields, to develop energy without any impact on the environment. These are not prototypes, but concrete projects adopted by some European countries today at the forefront of the use of inexhaustible and environmentally friendly sources. Like Germany, where in Munich, near the airport, there are two high-temperature gasification plants capable of producing energy with a process that is based on fast molecular dissociation in a sealed chamber and in the absence of oxygen.

The machine, presented by Professor Tomas Joyce, is called "High temperature gasification" and the peculiarity lies precisely in the fact that it does not use combustion, but is able to transform everything into gas: from urban refuse to special refuse, from hospital to plastic, to sludge and tires, not releasing any toxic residues into the air and completely abolishing landfill disposal. This is only one of the three innovative technologies presented in Palermo, during a conference that took place yesterday at the Yellow Room of the Norman Palace and organized by the "Florio" thematic circle of the Democratic Party. The plants could also constitute in Sicily as is the case for other countries, a valid alternative to the construction of waste-to-energy plants or incinerators.

The second project concerns the production of energy from magnetic fields, and it is a rotary motor conceived using rolled steel and copper coils. A magnetic field allows existing Ebm units to operate an electric generator, capable of capturing the energy generated by it, transforming 90% into electricity ready to be used, and leaving the remaining 10% to use for the mechanism itself. <<The plant - the scientists continue - is able to produce more energy than it feeds into the system and is based on the simple principle of the magnetic field created by magnets and a ferrous mass.>> A phenomenon we all came across as children playing with a magnet.>> <<We started the experimentation in Canada between 1986 and 1987 - explained professor Laszlo Szabo, candidate for the Nobel Prize for Physics - at the beginning it was difficult to produce more energy, we had no idea of the parameters needed to get to the point where we find today. The advantages are many, above all it can be a unique source of energy, and considering that it is generated from nothing, it is an important discovery.>>

## INSET

### THE MAGNETIC MOTOR

[ g.c.) The Ebm magnetic motor is capable of producing energy using magnetic fields. There are several advantages that this new technology offers in terms of respect for the environment. The plant does not emit emissions into the atmosphere and is environmentally friendly. It can work in residential areas, be installed underground or in isolated areas and works 24 hours a day, as opposed to photovoltaics whose operation is linked to the presence of the sun. It can work even in the absence of a distribution lines and can also be a single source of energy. This is transformed into electricity through a synchronous generator connected to the shaft of the Ebm unit. A small amount of energy is used by the system itself as an excitation current to maintain rotation. What is produced in excess, almost 90 percent, can be exploited or sold. The installation may have a somewhat complex process, the times are relatively short, but the expected time for the return of the invested capital is faster.]

Finally, the third project, presented by Dr. Nicole Deiana, concerns a new system for the treatment of fuels and the reduction of emissions. The fuel is catalyzed to optimize combustion characteristics, reducing emissions, increasing the yield of the whole process and reducing pollution. In Italy there are already applications with this technology in the Vercellese area, where there are dyeing plants that make extensive use of steam for the production of products. <<Reducing the problem of climate change - said Nicola Deiana, creator of the fuel treatment system - is possible by saving fuel consumption, reducing polluting emissions and improving power yield at the same time.>> <<For some years now - Deiana specified - negotiations have been underway that could be concluded positively: this could bring these technologies to Sicily. Our goal is in fact to make these systems known precisely to find a market. >>

And for the engineer Marco Beccali, of the energy department of the University of Palermo <<in Sicily, new infrastructures and investments are needed in the power line network which is no longer able to withstand the transfer of greater quantities of energy produced by wind and photovoltaic plants.>>