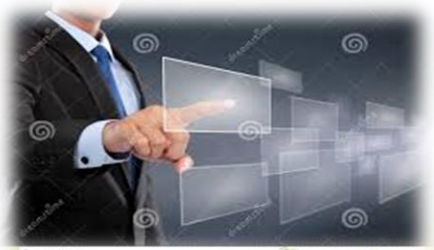
pentagen

Yearly savings : from 45% to 65%

Payback less than five years.

Pentagen represents a new energy frontier. Entalpica holds the exclusive know-how created and designed entirely by our research and development department dedicated to increase the building efficiency and and to reduce environmental impact



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The System:
Through touch screen control panel installed inside the building, is it possible to manage all the utilities that have an availability of wi-fi connection or electronics and their computers, printers, cell phones, alarms, video surveillance. Also via smart phone systems with dedicated application, remotely complete home management.
It 'a capable system, which thanks to home automation is able to manage and focus all components such as appliances, curtains, floor washing automatic gates, radio, video surveillance, scented nebulization etc.

The product

It is a high efficiency system able to use all the latent energies typically untapped. It consists of a combination of different technologies such as: The sun and wind power combined with a tri-generative system (combined heat and power) a combination of electrical and thermal power in all its forms, such as heat, steam, thermal and cooling oil. It is made up :

- generators powered by natural gas, biogas, diesel, vegetable oil,
- photovoltaic solar panels
- vertical wind turbine

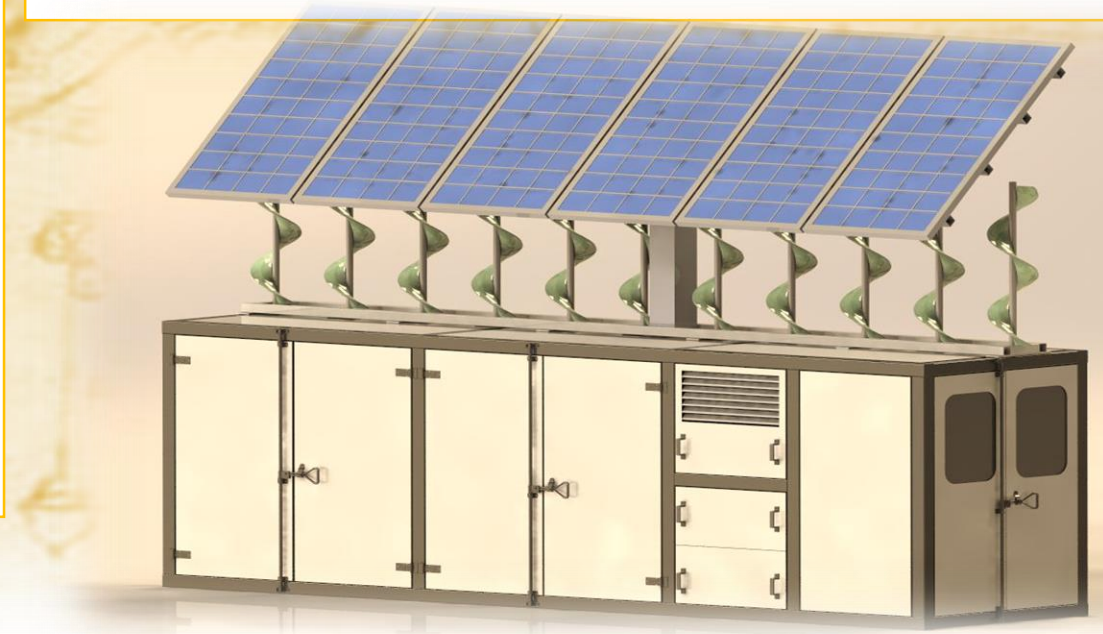
The System production

Thermal Power

- Hot water at 90°C and more
- Cold water at 7°C

Electrical Power

- Tri-generation 24h of 24h
- Solar system available in the irradiation periods and any excess is stored in the hydrogen fuel cell and then be reused.
- wind power systems (wind) 24hof 24h thanks to wind periods and through the indirect effect of the dissipation of electric radiators.



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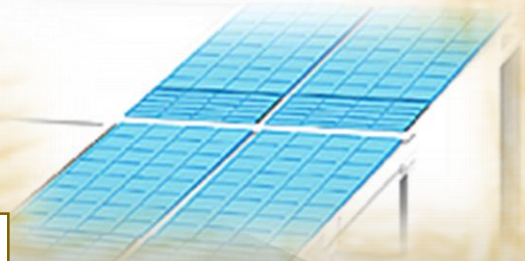
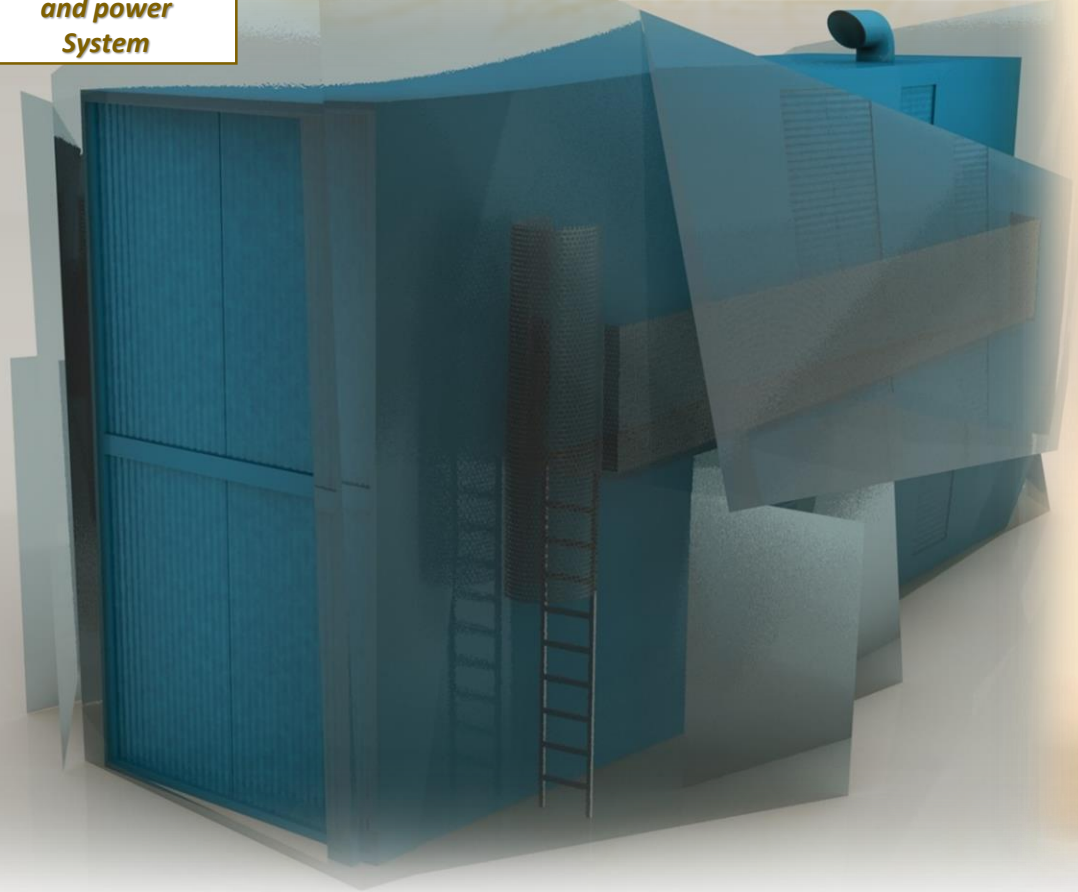
Remote super vision Controller (IPAD-IPHONE)

Vertical Wind System

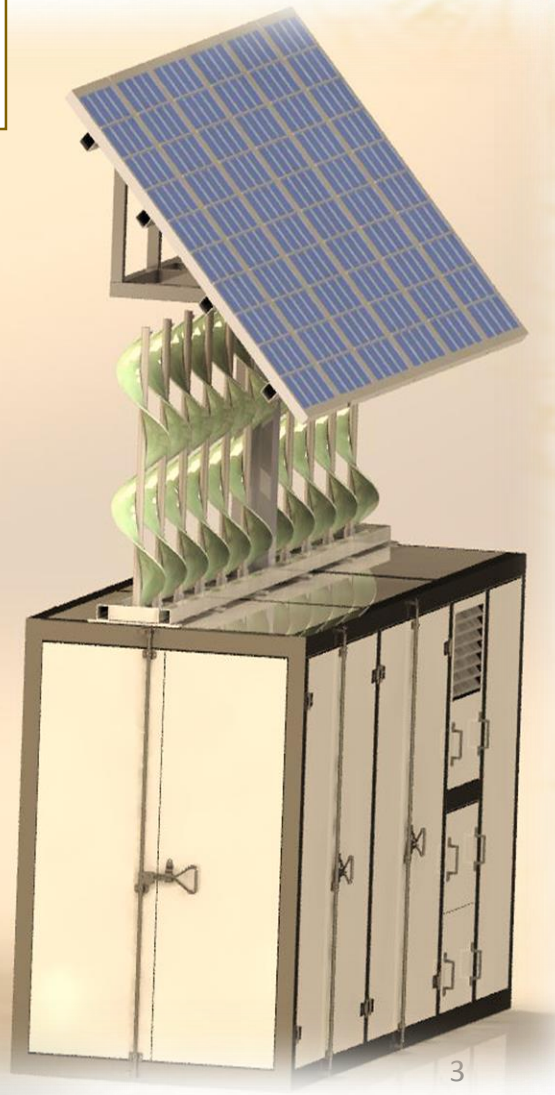
New Engine generation



C.H.H.P. Combined heat and power System



C.H.H.P. PTV Panel Hot water production & ELECTRICITY



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Applications:

CIVIL, right for flat, skyscrapers, small district to heat and cold down the houses (air conditioned) with a total electrical consumption from 3 kWe up to 100 kWe and a corresponding thermal energy operating from 4,5 kWt to 120 kWt with equivalent cold power from 3,2 to 85 KWf.

INDUSTRIAL , right for premises, shopping centers/commercial mall and remote district heating and cooling system, hospitals and so on. Total electric consumption from 120 kWe up to 400 kWe and the equivalent heat energy power from 140 to 400 kWt and equivalent cooling power from 95 to 280 KWf

Civil applications:

Example of houses applications like a No.4 flats :
Electrical power consumption average like a 2 KWe

- Electrical power consuotion dedicated to air conditioned about 30% (0.6 kWe)
- Electrical power for home appliances and lighting about 70% (1.4 kWe)

Yearly costs related to electricity estimated at € 3,600.00

Example of houses applications like a No.4 flats with Pentagen:
New electrical power average like a 1.05 KWe

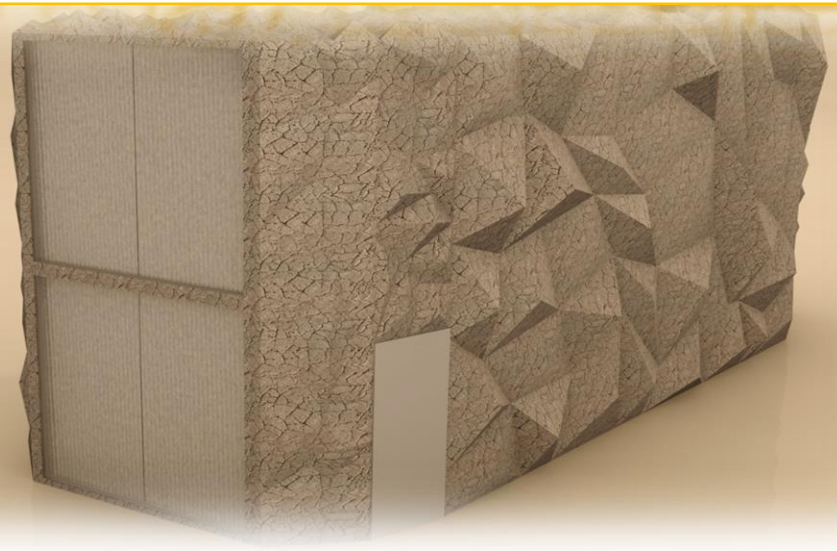
- Electrical power for air conditioned about 0%, cold power made free of charge from CHP
- Electrical power for home appliances and lighting about 70% (1.4 kWe) at a new equivalent price of 1,05 KWe, 25% saving

New yearly costs related to electricity estimated at € 1,200.00. Service and maintenance included.

Why choose it and the benefits

Low environmental impact, such as low atmospheric emission (nitrogen oxides and carbon dioxide), according to KYOTO protocol. (Carbon credits)

- Low noise emissions
- reduced overall dimensions
- Increasing the building energy class
- Renewable energy
- Reducing energy cost up to 50% of total consumption



From 5 KWe to 100 KWe

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Dimensions
L = 5000 mm
W = 1600 mm
H = 2000mm + 2000mm

entalpica spa

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