# The water and energy revolution in eight global projects, to cool the planet, create eating and work.

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When, eight years ago, I decided to devote my experience, my time and my savings to study environmental and energy globally applicable solutions to protect the environment, create jobs and food, I did not know it would be so difficult to find partners in the whole world , considering the large amount of qualified people who deal with the same problems. But as my work progressed and I was trying to communicate, did not get answers from public and private entities. This does not discouraged me but confirmed, even more, what I already knew: the splitting of responsibilities of men, of science, of companies, does not allow the construction of installations anthropogenic that report the mineral to land and carbonates to seas. It is the only way to stop the degradation. To err is human, but to persevere in many developing new technologies, instead of on the synergies, is diabolical.

Many scientists believe irreversible environmental degradation. Concentrated in their research specialist, they underestimate the power of synergies between systems and technologies. I am not a scientist but a simple designer of plants that I was never allowed to design; for this offer them in retirement, are more optimistic, but I am also realistic. Infact, I think that it is necessary to change the entire

environmental management, industrial, urban of planet, realizing, of course, global systems that are both industrial, urban, energy, purifying and protective of the environment. From the silences that I collect, it is clear that are right scientists, but not for scientific reasons. Especially because even the science is silent on synergies and technological plant, feeding the strength of those who, just for the sake of personal interests, do not allow the protection of the environment. and sustainable economic growth of the planet. We should ask who Youths silences and if they are in good faith, but it is of little importance for practical purposes. What is certain is that if my plans were unfounded, in addition to the silence, I would find the toughest opposition and concrete. In truth, someone has tried, but withdrew immediately. My proposals concern, above all, the macro management of the environment to create jobs, sustainable energy supply, in addition to useful micro management, on which they are focusing a lot of new technologies. Between micro and macro the difference is substantial: today. pollution is “Macro” produced industrially at the origin of the processes urban, industrial, agriculture, and environmental protection is “micro” concentrated in small and icomplete local applications. The great purifiers far from urban centers, only waste resources, not eliminating polluted air urban and producing acidic waters, without science say anything. Below are shown  some examples of what we could do.

1) Sustainable CO2 neutralization is possible with the system that uses nature: with rainwater, removing calcium and magnesium from rocks, especially calcareous. We can multiply the capacity of this system realizing large environments with high concentration of CO2 at atmospheric pressure, shattering the calcareous material stored mechanically, and producing artificial rains. The CO2 (captured by special chimneys), heavier than air stagnates in these environments be reinforced with the large emitters of CO2 until it is neutralized. In the

world’s power stations, just for cooling reasons, there are at least twenty times more water that pass in purifiers. what it would cost to producers of fossil energy, transfer with the above system at least part of the CO2  produced in the cooling waters?. They have not done before and do not make now that they know the solution, which was published two years ago by myself. This is a collective crime against humanity involving the authorities, but then there are many others.

2) The production of biological energy (especially biogas) must be combined with existing energy source of heat, which are many that produce air pollution and heat (thermal power plants, steel mills, geothermal sources, incinerators, cement plants, lime production). Unfortunately, these energy sources continue to produce pollution that could be transformed into a resource, while Governments are paying incentives to produce biological energy uncompetitive that, while it is true that it does not add CO2 to the environment, not even subtracts it. Authorities and entrepreneurs are content of glass half-full and waive the glass completely full: with competitive energy through heat recovery that chips to heat up the digesters, which absorb about 40 in costs; well give up to steal biological CO2, produced by new plants, and fossil, produced from existing plants; give to improve the quality of biogas, which can be done by transferring the bulk of CO2, in the same limestone greenhouses, which also purify the fumes. They resist all this for to settle crumbs and claim to be called defenders of the environment. All the fault is of the incentives granted too easily to new energies, which instead must use global industrial production systems, which have not designed nor public or private designers. To be able to do this I had to wait until retire.

3) To eliminate pollution and industrial heating and urban we must eliminate the chimneys and replace them with authentic

plants, if desired, we can also call them the same way, but the fumes seep them, bring them back to earth after they accumulate in tanks (basement or ground floor) where CO2 thickens, is compressed and transferred to the greenhouses scrubber based on water and calcium, nearer; while the air rises to the atmosphere through heat exchange towers with dual chamber (aftet). These, in the outer chamber bring air water heat exchangers that preheat or cool the fresh air environments (taken and filtered at the top of the tower). The water instead comes from below, accumulated in low enthalpy geothermal wells (coated gres, then with the same coefficient of heat exchange medium of the earth), raised in heat pumps (cold heat) and flow through the tower to exchange the fangoils heat directly into the apartments or industrial air heaters, thus creating an exchange between the air in the room and the water tower.  Putting aside the CO2, how can we think to cool urban centres during the summer months, with millions of air conditioners take heat from the indoor air and transferring it to the outside air? Even the air conditioners are incomplete systems encouraged by the authorities, against all environmental logic analysis.

4) to clean up the lacustrine and marine waters without energy consumption we can achieve vertical submerged intubated installations that use hydrostatic head, the kinetic energy produced by a submersible pump support (with the delivery down) combined  in series to a turbine equally.  intubated with relative current generator. Since the performance of the machines that produce energy much higher than the energy consumption of pumps that can be helped by the hydrostatic head and the vortices produced in the vertical pipe of descent through special impellers, we can send surface water (with a greater amount of oxygen) in the depths polluted, producing and consuming on-site energy. Even throwing in the distribution grid the surplus energy produced by the turbine.

5 The growth of the world population that is expected by 2040, up to nine billion, worries everyone but let’s not forget that most of the planet has not yet been exploited. In fact, the fish that eat comes from 5% of the surface of the sea. Only this small amount is productive but also have delicate biological balance that we are destroying and we must defend (see previous point). With floating platforms, vertical pipelines and electric intubate pumps, by venturi effect, we can, withdraw nutrients and carbonates from sea bed and then colonize the seas for food purposes, Furthermore, the carbonates, can remedy that alkalinity lost (30%) in 150 years of wrong installations, which are the main responsible for climate change, who currently oppose only incomplete works that move from water pollution to the atmosphere or vice versa, wasting energy. While in the world is wasted and will waste enormous resources to build levees that will never be quite high along the coasts, lakes and rivers, because of the authorities, scientists and engineers who can not do their own design work (or are paid to do evil their work) preventive and protective of the environment, which can be done only through global facilities.

6) The previous system has inspired another system, where hydropower is obtainable without major hydraulic jumps, but at low altitude, from the water by means of pumps and turbines, consuming a portion of the energy produced in a special circuit hydraulic feasible everywhere, also in underground lakes seas, but especially along the water distribution network (replacing the existing water towers and even with the incorporation vertically in buildings). Quest’energia non avrà bisogno di incentivi e potrà competere anche con il carbone. This energy won’t need incentives and will also compete with coal. It will cost less than traditional hydropower, not needing big reservoirs and dams that altering the natural paths of the water increase even more flood risks.

To understand the importance of this invention, you must consider that: renewable energy sources, now contribute to a 20% of the world’s energy production and hydroelectric energy, represents 80% of this 20%. Nuclear power does not reach the 2%. Then, the seventy-eight per cent of energy is fossil today. Having not needing large hydraulic works and even of large distribution networks, energy of the future will be precisely the power plant with recycle of water, which, if it is not wrong to my project, you can make anywhere. of course, this energy does not exist even a prototype, like all other inventions of the undersigned. Probably, in this case, environmental authorities, which distribute funds and entrepreneurs who take them, will be watching, waiting for the undersigned, under its own power, realize the prototype. Since when it comes to renewable energy, we no longer speak of depuration, as if the pollution was due only to energy, and as if the sewers, which produce hydrogen sulfide and ammonia nitrogen, and water treatment plants, which treat a cent of the water, too making them acid, we had already reached the maximum of efficiency. Instead, we are at the zero year of water purification, while air depuration is never started. With the system I called “Gspdptc” global synergy plants for depuration, production and cogeneration, We will purify water and air together, while we produce Energy, and natural fertilisers and biomass. As regards energy, we can do coexistence in the same system three types of energies: the fossil, which provides the heat and the CO2 to organic, which can, as mentioned above, reduce production costs; while overlapping biological ponds (which purify the liquid digestate, urban water and agriculture, in the district energy cooling with water also smoke, turbines and condensers), provide water and hydrostatic pressure to produce hydroelectric energy recycling of water. With the proper management of the water we renounce the use of energy not competitive, shale gas, Fraking, CCS The coal it could use to produce steel, but always by means of global facilities, not with polluting factories. Also from the wasted heat in the

production of steel and cast iron we can produce biological energy and alkaline waters. Unfortunately, serious projects and complete, above parties, struggling to get ahead, because companies try to sell commercial products, while designers public and professionals, have no idea how to design a complete industrial system. Governments and the United Nations do not put together the right engineers to deepen solutions, with the synergies between existing technologies. They continue to make further problems by researchers in all directions, without any coordination. In fact, we have developed good technology but bad systems because no one knows as put them together in the interest of the environment and the real economy, not the one that allows the fast return of capital. But no one takes a step back. The important thing to take loans. I hope that someone notices that something is the study of the problem, another thing is the design of solutions. Scientists are not designers. And now just what they do, making known the severity of the problems. Global warming requires global solutions, concentric and parallel, like the cells of a plant or animal that must communicate with each other. We can not continue to have the digester in a city, the incinerator in another city, the power plant and the sewage treatment plant in other places still, with no connection between them. The global economy has completely overlooked environmental problems taking care only of those energetic, but the world can not go on with the wrong plant in the wrong economy. The alkalinity of the oceans in the industrial age has lost 30% of the original. The bulk of acidification has occurred in recent years. The curve of ocean acidification is logarithmic, therefore, has an initial portion almost horizontal that  we have passed and we are going to the second section, where acidification increases rapidly. The softening of the water has already led to a slowdown of ocean currents, the dissolution of coral reefs, the extinction of many species of fish, the increase of typhoons and cyclones. There are many professional figures to report the problems and consequences of pollution but none

that offers sustainable solutions, practices, and prompt implementation, especially global and interconnected, because certainly the solution of the problems of pollution and energy is not only one. As a former designer and installer of, who has had the fortune or misfortune to cross experiences, I wanted to show the world my solutions. My thoughts and most of all my projects are not opponents, but my patents expire and no one to support them. Authorities, scientists and big business, they measure the effectiveness of their work only on the basis of the funding they receive through alliances complacent, not with the results of pollution abatement. Who can dispute the efficiency of their plants if the global plants remain the dream of a pensioner who knows their works very well to having them installed in industry and in the environment for forty years. Come into camp ordinary citizens and small businesses. They constitute associations of undertakings, not only to protect the environment, but also to create stable employment. It 'important that at least the latter patents lapse, not for personal gain, but because those who invest their capital, will have to make prototypes and made the adjustments that, unfortunately, the inventor has not been able to achieve If will lapse, will seize them  those who, having had several decades of industrialization, huge funding, mad scientists and engineers in all disciplines, they have not developed a single global system, making believe to people that pollution is the downside of the industrial welfare Society.

The global systems are still unknown, but I do not fear to say that today, the majority continues to write and talk about the environment and energy by keeping silent about them, makes only disinformation. You just have to consider whether if it does so with consciousness or unconsciousness. This regardless of the functionality of my patents which may also contain some error, for which I apologize, but more than that, with my own strength, and not a single euro of funding, I could not do.

The summary of the following patents and designs, on sale on the national and international markets, are visible and can be downloaded from the site http://www.spawhe.eu.

A) International patent:

WO2014/076724 Capture cooling purification chimneys (ccpc)

WO2014/076725 Linear synergistic system of digestion, dehydiration and composting (ldcc)

WO2014/076726 Global synergy plants for depuration, biomass production and thermoelectric cogeneration (gspdptc).

WO2014/076727 Vertical synergic buildings (vsb) for co2 and water depuration plus biomass production

B) Italian demand patents that can be extended to the international level

Ce2014A00003 Air filtration and thermal exchange tower

Ce2014A00011 Marine dewatering stations for artificial welling to increase the purification, the fishing grounds and alkalinity.

Ce2014A00012 Submerged hydroelectric plants for energy production, oxygenation of seabed and artificial welling

Ce2014A00013 Vertical hydroelectric plants with water recycle

Best regard

Luigi Antonio Pezone.