Energy right at the right time, in the right place

Gentlemen, I think, if I’m right, there are the great hopes of survival for humans and all ecosystems, even though the world population will exceed ten billion.They need a few thousand dollars or euro in prototypes to probe these hopes. But until I’m only asking this, governments continue to throw billions in financing energy and the environment, without the hope of solving neither environmental problems nor economic ones, They are not the technologies that are missing but the ones that are able to put together at the time right in the right way and in the right size. Lack projects and global designers. In this tract energy solutions and rehabilitation with exploitation of the oceans. Good solutions, sometimes, they are also the simplest, those to which scientists would not have thought.

Third open letter to european commission

Knowledge to other political leaders worldwide

Energy right at the right time, in the right place

Egregious representatives of the European people, before you hand over the temptation to authorize the FRAKING in Europe, it would be appreciated that your scientific advisors, would read more carefully as reported on the website http://www.spawhe.eu/ and authorize at least for the immediate testing of submerged hydroelectric energy and with water

recycling, because they could be the right energy, invented at the right time. Namely before they give the final blow to the environment with solvent injection and the splitting of the rocks to extract energy that might not serve us. In fact, these inventions very simple, could make, not only useless, but also uneconomic technologies like fraking and even traditional drilling of the seabed. which, although less damaging for the inevitable oil spills, in addition to those that disperse tankers, have always been a perennial danger to all ecosystems.

Unfortunately, I know, I will not have answers. Your scientific advisors there are used to having the best, but to settle for the lesser evil. I hope they have all taken their responsibility for not believing on what previously reported, not only in the recent letters addressed to you but in the various letters sent to many European offices and worldwide. If they did not believe in problems that can touch, it’s even harder to believe that these new energies based on synergies between pumps and turbines and in my opinion, also on the correct interpretation of the principles of Bernoulli and Pascal. Even these solutions have collected only silence. Probably, in Europe and in the world, the experts, scientific and not, do not like to deal with a simple retired for unknown reasons. For this, I turn again to you who have been democratically elected by the people. Even if you answer, do not respond as representatives of the Italian people, people like myself, who devote their time to the study of solutions to public utilities, believe that even you make your job well. At least from my point of view, on the environment and energy, were all wrong, neglecting and delaying the study of environmental solutions and financing energy incomplete and uneconomic. Even the biological energy and hydropower, which could be above all suspicion, are not exempt from criticism objective: the first is not combined with the recovery of the heat sources that are wasted and the production of alkaline

waters, the second can be produced more economically and practically without hydraulic jumps and without causing danger of floods.

Hydropower submerged and that with recycle of water, could be invented, with major dimensions and some artifice soon as they were the electric pumps and turbines but with the inventions of elettrompe submerged, to which, in place of the motor can be coupled optionally alternators that produce electricity, today there are great possibilities for these applications. So the same pump can also operate as a turbine, if fed in the opposite direction to the normal flow of the water and we have a very wide choice of machines that coupled together, with reduced dimensions, can produce energy where it is needed. Above all this energy comes at the right time, when the fossil fuels, beginning to decline, have stimulated the development of ever more invasive technologies, as the FRAKING, to which Europe has so far resisted. We do not know how much longer he would, with scientific advisors who have agreed to clean fossil energy with CCS and invalidate patents, which would take the CO2 in favor of the environment. But they have also ignored hydropower submerged and submersible. It ‘true that I speak on this occasion, but I have already written on Linkedin, sent letters and presentations published on the website http://www.spawhe.eu/. However, with these inventions, the poor countries of oil resources, such as EUROPE, which have at least common sense, they ended up aggravating the balance of payments and also to import nuclear power from neighboring countries. All the energies of the past and present cost more hydropower submerged and recycling of water, because the hydrostatic power is always and universally considered in Hydraulic calculations, but never used for energy productions without hydraulic Jumps. Today young people can not find work only because the ruling class world does not want to admit mistakes and defends himself with silence from sustainable designs. If they agree to correct the mistakes

made on the depuration and the production of fossil, biological, hydro energy and industrial, young people could start working in mass immediately. Not to build houses, roads, dams, bridges, appliances, Mose, EXPO, that do not serve, but to build works that help to protect nature and rational management of the environment, while producing energy and consumer goods. Existing technologies are good but the main plants have been designed based on outdated principles that were acceptable when not yet known the global solutions, invented by myself. Today must be changed, breaking down and turning chimneys, sewers, treatment plants, heating plants, saving what little we can save. Whether we like it or not we have allowed the development of a society that has ruined the environment and allowed the enrichment of a few and the moral degradation. Changing environmental and energy solutions is the first step to restore the well-being and social morality. In addition to the philosophical, religious, political principles, there are also the principles of “Ethics” less known. If people interpret their own use and consumption even religious ones, you can imagine in what role unimportant are relegated ethical principles. In particular, professional ethics. This ethic has led me to follow the pollution of water and air step by step, until they meet in new installations which do not exist, so they purify each other. This concept led to the conception of energy protective environment that allows the production of alkaline waters while producing fossil fuels and biological. Who has been silent on energy protective of the environment, if not ignorant on the subject, it is clear, that does not have professional ethics. I am still certain that the global systems are not there yet aware of the real leaders who make history, because they would certainly have understood. Otherwise they would have examined the subject to avoid continuing to make a bad impression in front of people in the meetings of world summits on the environment and energy.

But exhausted the subject of synergies between water, air, fossil and biological, I tried new synergies between the technologies to show that the way forward is the one of synergies. In fact, even hydropower submerged enables important synergies between hydrostatic pressure, kinetic energy, pumps, turbines, physical and biological phenomena. The same can be said of the floating pumping stations to produce artificially the phenomenon of up welling in the oceans. I am convinced that those who design industrial facilities, environmental, energy, have much greater responsibility to the philosophers, writers, religious, because they produce words that express concepts that are important values only for certain categories of people, while designers d 'plants produce food, consumer goods, energy, purifications, labor and real wealth. But they also have enormous social responsibilities. In fact, if they plan to complete plants (closing all cycles) also create social justice, creating more jobs and a fairer distribution of wealth. If, instead, design subsystems, creating social injustice, damage the environment and future generations. I think that no philosopher has ever made these considerations and no designer of systems have seen their job in this respect so important. Designers work to order of the client or employer. The great potential of designing public have never emerged, although this is much older than industrial, just see the ruins of Pompeii where you learn the first systems to carry water in homes. Is not it strange to bring out the potential of designing public has had to intervene a private retirement designer. The reason is very simple, because the public sector does not have real designers, but researchers and managers, that deepen their experiences in the same direction without seeking synergies that are at the base of the global Environmental protection. Not even in the industry exist designers complete but they work jointly to improve the facilities and the product, in order to win the competition. Unfortunately, private industry does not compete in the global protection because it prefers to sell machines for the

commercial environment that are usable only locally, not valid in the global systems. To bring out these deficiencies of the design public, myself had to do a long apprenticeship, during which I tried to meet diversified technologies to design, alone, global demonstration plants, at least as a pensioner. How could I have done? I had to invent of major orders, which nobody in the world would ever given to a simple technical employee. If I had not done, the global systems would not be discussed even amongst another fifty years. Currently it is not spoken for interest reasons of the private sector, and to hide the errors by public bodies. Meanwhile, work continues to move forward without coordination. The industry produces a good technology, but that does not serve to protect the environment and public design continues to build plants that produce local incomplete depuration, that aggravate global problems. Today it takes enlightened statesmen in every country in the worlds, who understand that environmental problems, employment, industrial production, need to be tackled together in the design global public, which can not be left to scientists, researchers and managers, but must to be tackled with a mentality that is both industrial and environmental. It is no coincidence that my works are born from twenty years of industrial experience and twenty years of environmental experiences.

I think that the truths covered up can come out only if I’m right on these new patents that should not correct the mistakes of the past but simply demonstrated with small prototypes of a few thousand euro, that an individual can accomplish. However, the requirements that the designer or the working group that pursues global objectives, are the patience and the ability to follow the main cycles and side to close them in the right way, at the right time and the right place. Does not mean that all cycles should be closed immediately in one establishment. The important thing is that they close also in a facility adjacent to or in another next. This is SPAWHE

that even the global economy pretends not to understand, because it is the economy of a few at the expense of others and the environment.

As for the new hydropower, propose two solutions, but it would suffice even one to change radically, for the better, the world of energy worldwide. I ask you above all not to neglect all the forces in society. Especially pensioners, that if they find the strength and the will to propose solutions, they can do this by putting together experiences free from constraints of public and private enterprise. The policy should be noble art but me, decided not to vote for anyone because no one has shown the courage to respond with a democratic confrontation.

Naturally, if Europe is not interested in the exploitation of these patents they can also be internationalized by competitors from other continents. The undersigned, believe very much although the great potential of patents has no intention to steal more money to the family budget to collide with rubber walls and bureaucratic vested interests, which unfortunately prevail precisely in the areas where there is need for greater transparency.

In order not write a fourth open letter, also add the third deposit patent that does not cover the energy but immense potential food and environmental. With these inventions I think that I have concluded my work also an inventor, having no other incentive to produce new inventions, at least until I see the takeoff of a few.

1) CE 2014A000012 date of filing 06/10/2014 SUBMERGED HYDROELECTRIC PLANTS FOR ENERGY PRODUCTION, OXYGENATION OF SEABED (SHOS)

2) CE 2014A000013 date of filing 03/11/2014 VERTICAL HYDROELECTRIC PLANTS WITH RECYCLE WATER (VHRW)

3) CE 2014A000011 data deposito 03/09/2014 MARINE FLOATING PUMPING STATIONS FOR ARTIFICIAL WELLING (MFPSAW)

These Patent applications must be turned into an international patent within one year from the national repository, and within thirty months from the same date must choose partners in the countries in which to extend patents. All these steps have a cost that the private inventor can not afford. Either they change the laws and to private inventors have recognized the rights of authors as writers, therefore the inventions can use throughout the world or, in the case of public utility projects, some one must meet expenses bureaucratic, experimentation and dissemination. I do not say marketing, because when it comes to installations of public utility, we can not speak of commercial products but of the complete works involving many companies at the same time that develop the country. Consider, for example, the induced activity that creates the sale in a foreign country of a plane, a ship built by a consortium of European companies, a power plant or a sewage treatment plant. These works can be assimilated plants that will lapse as international patents on 19. 05.2015, without the ruling class Italian and European Union have caught this obvious similarity, leaving them to decay, and these new plants that can not be achieved by individual companies. In fact, involving manufacturers of pumps, turbines, alternators, engines, electrical components, mechanical, floating systems, civil works.

1) SUBMERGED HYDROELECTRIC PLANTS FOR ENERGY PRODUCTION, OXYGENATION OF SEABED (SHOS)

Submerged hydroelectric plants for energy production, oxygenation of seabed (SHOS) is an italian demand patent (CE 2014a000012 dated 06/10/2014). Although there has long submersible pumps and more recently also turbines and pumps used as turbines coupled to power generators, no one has put together in this way to exploit the hydrostatic pressure after it is transformed into kinetic energy by means of the pump. The other systems producing hydropower exploit directly the kinetic energy by means of hydraulic jumps or waves. But the hydrostatic energy is recognized by Hydraulic principles of Bernoulli that say: the water level on the suction side of the pump is defined positive head and is subtracted in the calculation of the total head of the pump. In addition, these systems can be made subject to a depth level of floating craft and not affected by either of the waves that may damage them.

If we install an electric pump in a tube with an axial flow down deep in a wide basin and below it, in the same tube, insert a turbine connected to a alternator, we must provide the electric energy only for departure. After that, when the turbine rotates, produces an amount of energy much higher than that absorbed by the pump. The energy produced is proportional to the pressure energy related to installation depth (m * g * h). In fact, the rotation of the pump in the tube transforms the pressure energy into kinetic energy ($1/2 * m * V^2$) pushing the mass (m in kg with V=m/s) in the turbine, whose alternator produces electrical current. They are opposed to the transformation of energy only the performance of the machines and the pressure losses in the hydraulic hose of a few tens of meters, which are negligible. Obviously, almost all the energy is used by the turbine and the residual energy is dissipated in the seabed, but brings in it the oxygen of surface water. It is important to note that the water that feeds the pump which, in turn, feeds the turbine, thanks to intubation, is separated from the surrounding water and can have its own

specific hydrostatic pressure which is transformed into kinetic energy concentrated on the blades impeller as terrestrial plants. Therefore, the implants can be sized hydraulically with the principles legislated by the Bernoulli “. This is very important because without intubation of the pump that feeds the turbine would have had only a recycling of water around the pump and the turbine without the production of energy, since it would not have created a gravitational flow separated from the static mass of the water of the basin, which starts from the surface layer of the water.

This idea can have a huge impact for the large amount of clean energy that can produce, for environmental benefits producible by oxygenation of the seabed and the rise of the sedimented nutrients that feed the amount of food for fish species, for the development of employment due the construction of the facility and floating platforms that support them, that will be realized in the shipyards that have no work and then towed and assembled on site. But these systems can be used in many plants to be built in the water that do not exist today, described in others tabs of competition, such as: Coastal water purifiers of seas and lakes (CWPSL; marine floating pumping stations for artificial welling (MFPSAW); floating villages for work activities and tourism (FVWT); floating ponds for chemical precipitation of oceanic calcium carbonate (FPPCC). This energy, which was always under the eyes of all without anyone noticing, probably, is the energy more economical and practical in the world, having no need of major infrastructure such as reservoirs and dams, large spaces (such as solar) and even to be transported and refined as fossil energy, with all the environmental risks and costs involving these operations. This energy, though never been realized is ready and can be carried anywhere and in any size seas in lakes and reservoirs, of any size, being the pumps and turbines already produced as standard as the other elements necessary to achieve the plants, including floating systems.

It must be especially public bodies to promote clean energy and protection of the environment by encouraging experimentation and supporting trials and patents of small inventors who can not support themselves.

2) VERTICAL HYDROELECTRIC PLANTS WITH RECYCLE WATER (VHRW)

Vertical hydroelectric plants with recycle water (vhrw) is an italian demand patent. They are characterized by flanking of two hydraulic circuits: primary and secondary; each circuit contains a pump and a turbine inserted in series. The main circuit includes a special piece flow separator which divides the flow into four or three areas, which allows to supply the main electric pump with two separate streams, of which, for example, a carries 75% of the flow recycled, with low pressure and the other 25% with the high pressure, powered directly by the maximum hydrostatic level. These two flows are added together directly into the body of the pump in rotation, for which the turbine which follows the pump, is fed with 100% of the flow and the maximum hydrostatic pressure. The alternator produces 100% of electric energy. At the exit of the turbine 25% of the flow is diverted into secondary turbine which dissipates the residual energy producing another portion of electricity and discharges water in a tube to atmospheric pressure where a pump raises again the flow diverted to the maximum hydrostatic level. In this way, in the recirculation circuit that returns to the main pump is freedom of the volume necessary to re-enter the pressure energy

VHRW. is innovative because it aims to recycle water to produce hydroelectric power. In fact, to ensure the maximum operating pressure in a recycle loop is not necessary to renew all the water that circulates but only one that serves to overcome the hydraulic resistance of the circuit. This is the

reason for which have carried two flows with different pressures that have been inserted directly into the body of the pump in rotation, allowing to have 100% of the flow and the pressure serving to the turbine to produce mechanical energy, which is given by the unit pressure (kg / cm2) for the water passage section (cm). In fact, the pressure that enters a circuit for Pascal principle expands in all directions, but being the flow of water uni-directional, the kinetic energy and pressure both focused on the blades of the turbine located downstream of the pump (only to simplify the concept we renew the pressure based on the number of partitions of the support of the impeller of the pump, which typically are four or three and permit, without adaptations, to renew the 25 or 33.33% of the flow, but in the case of the exploitation of a high hydrostatic head, we can renew also a lower amount of flow, eg. 10%) This system although produces less energy than without recycling is equally important because it can have more urban applications, saving the costs of transporting energy and even of large hydraulic works. The hydroelectric energy with water recycle can free the city from pollution fossil, more of solar and wind energy because it costs less, is less bulky and can also be integrated with modern heating and air-conditioning systems (HCIE) described in other tab of the search partner.

VHRW can have a great impact worldwide both for the large amount of clean energy that can produce, both for the effects of environmental benefits, especially in urban centers, both for the development of jobs due to the construction of plants that will work in many industrial companies for the construction of pumps and turbines, but also to small and medium enterprises, for the setting up of the plants in the urban area. These plants can be constructed immediately, existing state of the art all the necessary components, in particular by using two electric pumps and two turbine coupled to an alternator, of different sizes. It’s only necessary to

put them together and made a complete circuit, which to occupy less space, is constituted, starting from the top, by two concentric tubes, of which the inner one contains the secondary turbine and the lifting pump flow for the renewal of pressure and the outer one acts as a water storage tank. Below the large pipe is inserted recirculation circuit with the flow divider consists of a tube containing the separators mounted directly on the pump for recycling. Holes on the wall of the tube splitter let in the water for renewal of pressure in a single sector. Under the recirculation pump is mounted the turbine, at the exit of which a portion of the flow (25%) is diverted to the secondary circuit, while the rest again returns the flow divider of the recycle pump. This circuit allows the production of hydroelectric energy without consuming water and can circulate hot water in winter and cold in summer connecting to the geothermal pits with low enthalpy, contributing to climate mitigation, outside and inside the houses. In other cases It can be too accompanied to the distribution of clean water with energy production. Infact, the urban water towers, which would perform the dual function, may be more numerous than those present reducing the number of private autoclaves where the water stagnates without recycling also for long periods. Instead, recycling of water required for energy production also produces a beneficial oxidation, to the benefit of consumer health. Poor countries with oil resources, probably, have finished aggravating the balance of payments and also to import nuclear power from neighboring countries, along with solar panels and wind turbines. All these energies are more expensive hydropower submerged and water recycling.

3)MARINE FLOATING PUMPING STATIONS FOR ARTIFICIAL WELLING (MFPSAW)

(The rehabilitation and exploitation of the oceans)

is a italian patent application . The inventor thinks that state of art in the exploitation of marine resources has been conditioned by the hard access to the deep of the seabed. for this reason he thought of this system that is mounted from above and does not require maintenance in the deep waters, since there is no mechanical or electrical parts immersed in depth.

The phenomenon of the descending and ascending marine currents, known as “down and upwelling”, (where it happens) produces wealth and well-being even though, unfortunately, it happens naturally in a very small part of the world, because it need that many factors have to coincide like the intensity of winds and their direction or the structure of the continental slope. The solution that we propose it’s ideal because it plays artificially the natural system. By using unsinkable floating systems and a right interpretation of hydraulic principles, we can create and re-produce this phenomenon in all oceans far away from the coast, where do not occur wave motions that would destroy the plants.

Apart venturi pump, invented by Physicist John Venturi lived from 1746 to 1822, no applications are known to have tried to raise this way the nutrients and carbonates from the seabed, although the applications of this system are many but generally used in smallapplications, especially for the determination in water flowspercentages of gas and chemical elements. In this case however, the pipes must be large, stiffened with tie rods that connect to the upper platform, which must be anchored to the seabed, that to overcome the compensation line of the carbonates, below which the same are definitely solubilized, you must descend at least 4000 m In these deep not worry the hydrostatic pressure acting on the tube descent and ascent which is offset since the tube full and completely immersed in

water. Instead worries the unitary stress on the section of the pipe due to the weight of the pipe itself as depth increases, so it is necessary to realize the tie rods which support the individual pipe sections from the upper platform, but these rods also serve to stiffen the structure against the decline that can be induced currents and by physical stress due to large cetaceans.

MFPSAW can have a huge impact large amount of feeding it can produce in view of the growth of world population and the development of employment for construction of floating platforms and the birth of immense work activities in great ocean surface. But you can also hypothesize artificial islands with ground water desalination plants reported and homes to house the workers engaged in fishing and fish processing. Obviously these islands will also become tourist. But above all we must not neglect the great contribution that can give MFPSAW bringing to the surface a greater amount of carbonates, whereas the oceans with the advent of the industrial age and the release of greenhouse gases into the atmosphere from PH average 8.25 are dropped to the current PH 8.1 which represents a loss of alkalinity by about 30% whereas the curve acidification is logarithmic. Considering also that the first part of the curve is almost horizontal, losing another 30% of alkalinity will be at a rate much higher than the previous year, if we do it to create systems that combat the phenomenon in the oceans, as MFSAW and others on the ground described in htt://ww.spawhe.eu

The realization on large-scale of MFPSAW is essential to combat global warming and to increase sustainable food production, given that desertification advances at a rate of 12 000 km2 per year. Will need establish rules and international regulations that must fill out the existing ones for the exploitation of the territorial waters and established

rules and signals for navigation surface and underwater. To support the load of the columns of tubes suspended to platforms, it is necessary to provide the construction of floating platforms equipped as towable yard, which are mounted in the shipyards over to another floating platform. The upper platform must be equipped with large hydraulic cylinders, intermediate floors and many structures with electric winches on the whole perimeter which perform the handling ropes that support the load together with the hydraulic cylinders when mounting and is lowered into the water. After assembly, the upper platform releases the load on the lower platform and empty rooms watertight flotation. The lower platform, which supports the system adjusts the level of buoyancy entering compressed air in sealed rooms after the top one was released and moved by a tug.

Best Regard

Luigi Antonio Pezone

P.S. I am very sorry of not be able to provide prototypes to be more convincing.