Fighting global warming extending the borders of perpetual motion

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“PRESSURIZED DOMESTIC HYDRAULIC SYSTEM, PRODUCER OF HYDROELECTRIC ENERGY”, that is looking for public or private partners.

In the aquatic environment, pressurized with the atmosphere or artificially in tanks, the perpetual motion does not exist, as in the terrestrial environment, but it is possible to multiply the energy spent for the circulation, obtaining a gain of energy in a turbine, until the motion, initiated by a pump, continuous in time. The easiest way to obtain this multiplication of energy can be achieved by placing a pump submerged in the seabed, which pump down, upstream of a submerged turbine, intubating the water from above feeding them both, in series. This solution does not allow the upper reservoir emptying and at the same time, feeds the turbine only by utilizing the kinetic energy that is produced in the descent tube due to the rotation of the pump. In fact, also in this case the energy produced by the turbine is much higher than that consumed by the pump, because it is increased by the force of gravity and by the atmospheric pressure acting on the entire basin, but where the pump creates a vacuum in the seabed, produces a downhill water continuously flow like a gate that feeds the turbine was opened. Although this flow depends exclusively on the rotation of the pump, it does not mean that the turbine produces only the energy supplied by the

pump. In fact, if there was not the turbine which slows the speed of the water, the water velocity in the descent tube and at the outlet would increase by gravitational acceleration effect (√2gh, according to the principle of Torricelli), without a fixed pump speed will be able to control it, transforming in heat all the kinetic energy, due to friction with the walls of the descent tube and at the outlet (V2 / g).

It 'obvious that this energy exceeds the efficiency of 100% compared to the energy expended, without violating the principles of the conservation of energy. In essence those rules do not contemplate special cases that exploit the energy of surface water position that is automatically renewed because incompressibility of water, that in a basin always full occupies the same space even if you perform internal currents, one-way and only from the top down, as previously described. In fact, the kinetic and electrical energy production can not oppose the static pressure of the basin, present at the output of the turbine, and because this pressure is also present on the suction side of the pump, and then the static pressures are balanced, both because the exit the turbine there is an outlet in an open environment where the only opposition that can find water that comes out is that of static friction with the water molecules that is at the exit of the turbine calculated by the known formula V2 / 2g.

Consequently, to the pump is required little energy to move the ducted water from top to bottom and then put into turbine connected in series that by limiting the output speed, turns all the kinetic energy into electricity. The energy produced is always higher than the energy expended to run the pump. Everything depends on the positive hydrostatic h intubated above the pump.

The concept above of submerged hydroelectric energy can also be transferred to non-submerged hydroelectric energy, if instead of intubating the water by the bottom gate of a reservoir, we intubate the surface water which is discharged

from the overflow and we put in downstream of the descent tube a pump in series to a turbine which discharges the water into another tube, but with much larger section than the descent tube, connected to the bottom of the upper reservoir. Also in this case we produce hydroelectric energy using only the dynamic pressure, the static being in equilibrium, as described above, with all the effects induced by the acceleration gravity. Also in this case the water that comes out from the turbine, requires only an energy V2 / 2g and having the same density as that which is located in the upper basin, does not need to be raised, since such circumstances, the upper reservoir is full and feeds the pump which in turn feeds the turbine, which discharges the water into the wide pipe section connected to the upper reservoir.

In fact, those who assert that the underground hydropower is against the principles of conservation of energy, does not know these principles, since this energy transforms into electricity that energy that is produced by the hydrostatic height h and acceleration of gravity g, which would be dispersed into heat because the energy is transformed, not destroyed. But it is clear that the energy submerged and always filled basins was never produced because to produce it were necessary four conditions which have to co-exist simultaneously and that no one has never thought to put together: atmospheric pressure on the surface, intubation from surface water, in series combination of a pump and a turbine, position of pump and turbine under hydrostatic height h. If miss one of these four elements, or stops the pump that breaks the hydrostatic equilibrium does not produce any energy.

The reason is very simple: because, not being able to take advantage of the hydrostatic pressure of the reservoir, we use only a tiny fraction of water position energy specifically ducted and separated from the surrounding waters, creating a vacuum in the lower part, so that the water inside the hose could drop into the seabed due to the gravitational force and

the atmospheric pressure, producing a kinetic energy much higher than that consumed by the pump that simply moves the water of a few centimeters down, triggering a kind of siphon that stops when the pump is stopped. This condition does not exist in nature and was not easy to intuition, therefore, it is evident that this energy would never come off without these arguments. But this reasoning, which for unknown reasons, no one has financed, have led to more reasoning even more efficient from an energy standpoint. Therefore, the progress of the state in the hydroelectric sector with the water recycling is due only to advance virtually. Probably, the professors who teach hydrology in universities around the world do not have the humility to admit that he had not made such reasoning, whose absence has affected the environment and world economic development. This is also necessary to say talking about the art of hydro generation was because the silence of the world's scientific authorities continue despite all the publications and patents filed later by myself.

In fact, from the initial reasoning simply using a normal pump which pumps water into a turbine, it created another reasoning that allows to produce energy even while raising water from a lower reservoir to an upper reservoir, which has led to a new invention called "electric pump with double separate power supply until the impeller". ". Which it runs fed from two separate hydraulic circuits. In fact, we can produce energy in the turbine with the water that beat from the upper reservoir, which also in this case must be kept always full, and collect the water that comes out from the turbine in tank placed in the low position, which feeds only one side of the pump with the dual separate power supply until to the impeller, while the other side continuously recycles the water of the upper reservoir. The essential condition for the functioning of the pump and related plants is that the two flows are hermetically separated until the entry into the impeller. In fact, being the feeds fixed and the flows very similar, they introduce in the same sector of the impeller in rotation, alternatively,

the water that comes from the lower basin and that which is recycled from the upper reservoir. Consequently the water of the lower basin is inserted into the recycling circuit of the upper reservoir, being unique the pump delivery. But since the volume of the upper reservoir is limited, the excess water exits from the overflow and feeds back the turbine in an infinite loop, until the pump runs, as in previous cases. With this new system, if we take from the overflow of the upper water basin for other uses we not excessively reduce the production of energy, being able to integrate with drawn from the lower basin water. Today the water lifting systems are very large energy absorbers and can not recycle the water producing energy in the turbines because the lifting without the pump with the double separate supply until to the impeller and the relative water recycling circuit which uses the pressure hydrostatic of the upper basin, it costs plus of energy produced by the turbine.

Contrary hydropower submerged and with the total water recycling, the implants made with the pump having dual separate supply, produce energy only with the amount of water that is renewed entering by the feed opposite to recycling, but the advantage is considerable, since there are no limits to the height in which the water can be raised only spending the energy for the recycling of about twice the water flow that produces energy in the turbine.

To realize the energy difference between a water recycling and a lift is enough to think that recycle 1000 L / s of water in a pipe Dn 800 one kilometer long, it requires the pump head of 1.5 m. It means that the water to move horizontally or recycle it in a closed circuit, without lifting it should be an energy about 666 times (1000 / 1.5) lower than lifting against the gravitational force. This ratio increases with larger pipes and decreases with small pipes, but also in domestic systems, that in this respect, are the most penalized, the ratio stood at values of a few dozen. But

considering that we do not need fuel to produce this energy, being the main energy source of compressed air cushion, which acts as the atmospheric pressure in the artesian wells, but in a more powerful way because in domestic systems use a pressure about four times higher at atmospheric pressure.

Another important application filed as patent by myself, for this type of energy, as well as for home, house systems, is that concerning the replacement of heat engines on means of transport, simply placing side by side a pressurized tank with compressed air and a tank at atmospheric pressure. In fact, the water passes from the tank to the atmospheric pressure to the pressurized by means of the pump with the double separate supply until to the impeller, which in the meantime, through the second power, by recycling the water in the pressurized tank and balancing in the impeller in rotation the pressure of input and output also allows the entry of renewal water that enters in the impeller and consequently in the recycling circuit and in the pressurized tank, bypassing the pressure of the air cushion. Obviously, adjusting the flow rate of water through by motors with inverters and the degree of opening of the valves with stepper motors and position transmitters with signals in milliamps is possible to finely adjust the energy produced by the plants that use the compressed hydropower. This adjustment is very useful especially on means of transport where current heat engines need a much more complex, having to control the combustion parameters, the speed control of the motor, the filtration of the smoke and the temperature of the engine at the same time. Nearly 150 years of history of internal combustion engines have not yet solved especially environmental problems, but manufacturers have no desire to abandon the thermal and thermal power engines, which also serve to charge the cars powered by lithium batteries which is a material expensive and being depleted, while thriving solar energy and wind that have encumbrances, environmental impacts hundred times faster compressed hydroelectric energy. The so-called new energy that the world’s environmental authorities

are carrying out are discontinuous in energy production, require special materials, they also running low, and the cost per kWh produced is at least ten times higher than the cost of energy with ‘compressed hydropower.

Another application, also filed as a patent, may be used for the protection of the environment submerging pressurized tanks in the waters subject to flooding. In fact, we can use the pressure of the air cushion to produce energy, both to defend the territory against flooding, simply by diverting the water outlet of the pressurized tank to the turbine, or to a specifically prepared area to accommodate flood waters. In fact, we must not forget that the air cushion can be up to 35 bar before the water, at environment temperature, becomes liquid. All this without counting that these plants produce energy while dissolved oxygen in the water contributes greatly to self purification. Obviously, in all systems, large and small, fixed and mobile, it must always be the pump with the separate supply to introduce water into the pressurized tank, without allowing the expansion of the air cushion, as occurs in the tanks at atmospheric pressure that discharging the water from the overflow. In fact, only the water that comes from the pressurized reservoir, similar to the overflow of an open reservoir, can be used to produce energy, or be raised for the defense of the territory, with an energy gain, while respecting the principles of conservation of energy

It is no coincidence that the “domestic pressurized hydraulic system, hydropower producer” was born in the end after studying ways to reduce the overall dimensions of the pressurized hydroelectric plants, both to let them in car trunks, both to let them in the cylinder of wells. In fact, the solution of the double-flanked tank, is nothing more than the solution used to realize hydroelectric engines compressed on means of transport but in this case the energy outputs from produce are lower and the adaptations are needed, such as the double system for water cold and hot, to distribute the water

to the various users of consumption, distribution and thermal conditioning of the housing. While the studied system for lifting, oxygenate and produce energy in the wells, can be used without particular modifications to feed the water necessary to the individual apartments, or by integrating the energy production, both for exchanging the low enthalpy geothermal heat with the subsoil.

This solution does not require fuel or solar energy, with the coupling between the internal system of the apartments and the inner to the geothermal wells, may even make acceptable living conditions to the north and south poles, where the polar night lasts six months. But for the moment it would be sufficient to eliminate the millions of outdoor units of air conditioners that with the exchangers air / currently contribute to global warming air, and reduce the proportion of CO2 from the environment simply by oxidizing domestic waste water and rainwater by means of artificial rain water in limestone greenhouses, was placed on urban purifying or nearby, as already proposed by me in previous patent deposits, as shown in Fig. 6 of the drawing 2/2.

In fact, with the compressed hydroelectric as shown, we can produce energy even lifting the water, because the pressure of the air cushion easily overcomes differences in height of a few meters, while the pumps with double separate power supply we can retrieve all the waters' infinity, until it becomes alkaline, with energy costs amply compensated by pressurized hydroelectric production. So the demolition of CO2, SOx and dust present in the environment, which is deposited, especially in the urban atmosphere low-lying areas, it would not cost anything from an energy point of view. And 'only necessary modifications of existing purification plants, bringing them back where they produce pollution, because those who brought the cleaners out of the city walls has only created chemical biological and economic disasters. If the environmental authorities will dispense with opportunities to

continue using purification systems such as activated sludge, places outside the cities, after kilometer sewer degenerative pathways, it is not only environmental incompetence, but stubbornness to want at all costs, damage the environment, ‘economy and the health of citizens.

From all the above considerations it is clear that hydropower pressurized with compressed air, is certainly the cleanest energy, efficient, economical, easy to manufacture, with a small footprint and the minimum investment. It summarizes the physical and hydraulic principles on which they are based:

In these systems, we exploit two different hydraulic systems: one in favor of energy production that exploits a physical force (compressed air) is not produced by the hydraulic system and one favorable to energy saving during water recovery, which bypasses this physical strength, exploiting the incompressibility of water, in the following way:

– At the entrance of the turbine exploits the dynamic water pressure caused by the air cushion, which would expand, but can not expand, because the pump simultaneously with the dual separate power supply until the impeller introduces, through the impeller in rotation, from the side extractor, the same amount of water that out of the tank;

– Entrance of the pressurized tank takes advantage of the fact that being in balance the pressures upstream and downstream of the impeller on a side of the pump, when this is in rotation, there being a clear separation of incoming flows arriving to the impeller, when this wheel entry permit in the same sector of the impeller, the first water that comes from the outside and then the one that comes from within and both streams are output in the direction of the pump inside the pressurized tank. Where the water finds no opposition, by the hydrostatic pressure existing in the tank, being an internal circulation to the accumulated volume, going simply and simultaneously to fill the void left by the water that comes out to feed

turbine. It ‘important to dwell on the fact that the water that comes out is replaced instantly by water which enters, for which the hydraulic system does not alert the entry of outside water to the inner one.

It ‘difficult for the experts, especially for pump manufacturers, to admit that the pumps should have been designed to get the forces that oppose the lifting of the waters, as indeed is the case in the mechanical lifting. In fact no one raises mechanical lifting weights directly, but does so through many systems that reduce the effort (inclined planes, rolling friction, relationships belt drive, gear, etc.). Who knows how they work and how the pumps are built can not have doubts about whether the pumps with double separate power supply are functioning. It can vary only the performance of a type of impeller and the other, but this regards large plants with high flow rates and small heads. In domestic systems the choice of impeller is almost obligatory. It is single stage pumps with closed impeller.

As described above, it is worthwhile to turn the condominiums and individual apartments from absorbers to power producers, providing energy to the public sector and industry and eliminating fossil fuels.

They could not and cannot find global solutions because everyone pulls water to their mill, while it is necessary to think with one mind one objective, drawing only from scientific and technological solutions sustainable and interactive from the physical, chemical biological point of view and high energy and depurative efficiency. No one could find the road ahead, the sciences and technologies to choose from, without first emptying one’s mind by vested interests prejudices and not have the experience and the ability to place at the right place at the right time, some strategic invention to link together the different sciences and different technologies. It was not an improvised work but a kind of Olympics that required a cross life’s work to

different disciplines such as training and the final race was a marathon lasting ten years, collecting endless silences on global cleansings and accusations without the sense of “motion perpetual “on hydroelectric energy with water recycling, that the world scientific class has not been able to invent, despite having all the means available for trials.

Many still hope that my solutions, for which the whole world has not spent a penny of the dollar may not work, not to lose face. But what they have to lose others? Which also do not fight for targeted solutions and designed in detail, preferring marches, protests, wars and bombs, so as not to admit that the only practical and rational reasoning can achieve universal goals, for all practical purposes, the most useful of relativity of Albert Einstein, that alone can not combat pollution even produce clean energy.

Twenty-two COP (conference of the parties) organized by the same UNITED NATIONS, have done nothing but bring the amount of CO2 in the atmosphere from 360 to 400 ppm, while the oceans since the advent of the industrial age have lost 30% alkalinity, the glaciers have decreased probably of a percentage even higher and desertification, such as the United Nations denounced advancing at the rate of 1% per year.

it is no coincidence that SPAWHE.eu it is only of a web site of a retired and that its solutions are silenced by all the experts because it highlights both the defects of private companies that of public ones. The SPAWHE solutions deviate much from those for which they fight celebrities like Al Gore, Jeremy Rifkin, Jeffrey D. Sachs, Bill Gates, engaged in the search for new solutions, which look to the future without correcting the past, assuming and purchase the current state of the environment and energy. For them, the evolution toward renewable current, is the right way. It would be too cruel, even for them, have the slightest doubt (which for myself is a certainty) that we have polluted and warmed the planet unnecessarily, paying more than due also from the economic

point of view, because water and compressed air could be combined since the advent of the industrial era, with insignificant costs in comparison to fossil energy. Would not it be worth it to pull it out from underground. What would they say billions of people who rely with confidence to science if creep in terrible doubt that the most economical and clean energy, easy to produce, even that would protect the environment by oxygenating the water, has never been produced, indeed it is It has been shelved? For myself, it is necessary to clarify because only science does not need to be interpreted. If there are doubts the facts can be demonstrated in practice, and when it comes to public interest issues, which eludes loses credibility. We can not build the future without correcting scientifically and practically the "partial" logic of industrial development, focused on profit at all costs and the "no global" logic of the energy and environmental development, focused on the absence of synergistic scientific reasoning. These two wrong logic have led us to develop all incomplete solutions and competing with each other, both industrial, both environmental. In fact, the fossil energy, fixed and mobile, did not solve the problem of CO2 emissions. Nuclear energy has not solved the problem of waste disposal. Organic farming is confined solely to emit organic CO2 instead of the fossil. The photo voltaic energy and wind power, are bulky, low performance, discontinuous and require materials that are already running low for the buildings and storage of energy. Hydropower has not solved the problem of water recycling, it requires great works, with large investments. In many cases creates more harm than good: torrential rains, finding water basins already full, produce floods. Even the millions of air conditioners in the cities are an easy industrial solution "partial logic" approved by the "no global logic" public. The logic of SPAWHE uses interactive energy with the environment, purifying water and air, protecting the environment even by drought and floods. Even when it is necessary to exchange heat with the environment, uses the air only inside the apartments, while

for the exchange of heat with the outside environment uses water and the subsoil, it is desirable also from the point of view economic in all seasons, especially, with the compressed hydroelectric, which can also be used at the poles, without fuel, in the long polar nights. If the UN and sovereign states, not legislate with technical and scientific and impartial expertise, we humans continue to live in a fake democracy, which in reality is an anarchy for use and consumption of the powerful, it does not look good common, but only pretending to look for it, counting on the fact that hardly the inconsistencies of the "private partial-logic" and "not global logic" public, they could come out. In fact, today's society is capillary organized so that a SPAWHE system, cannot be conceived. The best brains today are taken directly in universities and addressed to individual specializations to perpetuate the current state of affairs. This may be acceptable and understandable for private companies, which have to beat the competition on the specific market. It may also be acceptable for researchers in all fields of medicine, chemistry, physics, biology. But for myself it is a serious mistake to design public facilities by drawing from the experiences of researchers, without global expertise. Cross reasoning is the only one that can overcome the limitations of the individual disciplines, who can offer it, should not be isolated as at present, without copyrights and paying expenses of patent deposits, which people ignore to continue to carry forward the " partial logic "of private profit and the" no global logic "public, which can not even be punished, being universal, despite the articles published by the United Nations and signed by member of states in the" coding Project on responsibility of States for internationally illegal acts "

It 'necessary and urgent to ascertain the scientific truth of SPAWHE, which requires a few thousand euro, which are crumbs for any private or public company, except for myself, who has spent all he had to deposit thirty-six national patents, one

European and five international, without seeing made even one, because, they do not follow the “partial logic” related to private profit and even “non-logical” public. This is not needed for economic claims by myself, but to rehabilitate the “SCIENCE IMPARTIAL” which has never existed in the world of environment and energy. To find impartial scientific applications it is necessary to remember the fathers of science and their reasoning, with rare experiments, before the advent of the industrial era, which paved the energetic run one way and on hydroelectric energy, with the jump plumber, too simple and elementary to be considered scientific, neglecting the Torricelli studies that already in the first half of 1600 were a glimpse of a possible energy synergy between the water and the air and the gravitational force, even without the hydraulic jump.

As I wrote in the title of this article, I try public and private partners, because as a simple citizen of the world I can not do more than what I did with my technical and scientific knowledge and my small savings, which I already spent for this purpose. But I think mostly what I wrote in the new home page of http://www.spawhe.eu, namely, that it would be desirable one direct intervention of the United Nations to officially define what criteria should be designed public utility implants of energy, purifying, and protective of the environment.

The United Nations, and sovereign states, to desire by the same inventor, may adopt as its all systems offered by SPAWHE without the monopoly of patents (energy, water treatment, heating and cooling, desalination, protection from high waters, oceanic nutrients and carbonates lifting) shortening the time of intervention in the fight against global warming and allowing all public and private companies to participate, but they must take responsibility to emit public guidelines that follow the interactive global, protective environment that is described in SPAWHE systems. Because without the rules

and organization of work with universalized industrial criteria it is not possible protect the environment adequately. If the UN and sovereign states disdain this offer, continuing to remain silent, as they have done against the work of the undersigned, just have to continue easily find private partners (which are unlikely to come forward) to replace the global public institutions in the fight against global warming. In this case patents are useful to protect the most prepared and brave entrepreneurs. History will judge the value of the projects and the value of the men who are called to decide and to participate without falsehood and hypocrisy scientific political, economic, philosophical, religious. Today we cannot understand who is really interested in the protection of environment and sustainable energy because the words do not correspond to the facts. Cordiali saluti.

Luigi Antonio Pezone.