Open letter to Mr. Bill Gates on energy miracle.

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Dear Mr. Bill Gates, I read a few days ago your interview with James Bennett of November 2015 entitled “We need an energy miracle” (http://www.theatlantic.com/magazine/archive/2015/11/we-need - an-energy-miracle / 407881 /) that I shared on my facebook page. I appreciate your good intentions, if I understand correctly, they provide a financial commitment of $ 2 billion that, for us, mere mortals, it is a number that we cannot even imagine. I think, like many others, that if also the other rich had your sensitivity, the world would be much better. I appreciate above all the fact that bluntly denounces the failure of energy environmental policies, public and private.

For myself, energy policy, should be based on synergies between natural resources and technologies with minimal processing cost, combining energy production to environmental protection. But this does not happen because the public experts do not reason globally and therefore not even coordinate private energy solutions. A classic example of the wrong plants are those that produce energy from organic sludge, which are not as efficient because before it destroys the energetic power of the sludge in sewers and then trying to produce energy in plants, which positioned away from the source of pollution waste energy, producing acidic waters and very little energy from septic sludge. The logical process would be the immediate separation of the sludge from the water in the same urban centers and separate processes: aerobic for

water and anaerobic for the transport of the sludge to energy production. Another example of the wrong energy is hydroelectric power with the hydraulic jump, which involves the construction of large dams and large reservoirs in mountain valleys, to harness the energy of the water position, which in many cases produces disastrous side effects such as floods, not even solving the problems of the summer drought, because water is not recycled and stored for emergencies, but used one way. A correct water management should be made in the valleys, in parallel and not in series, to watercourses. Where the water, not only could produce hydroelectric power without the hydraulic jump and recycling the water. But also using water to cool the thermal plants, producing alkaline waters, bringing together the fumes with artificial rains in limestone greenhouses. But this presupposes the realization of complete cycles that although known, scientifically, no one has ever put together, because the insiders public and private jobs are specialized to do one thing only. They either produce energy, or purify water, or filter the air. In any case realizing incomplete cycles, which can no longer be completed once they are released by the plants. From this way of operating it is born pollution and global warming. I think that only by rationalizing purification systems and management of water we can get truly sustainable energy, otherwise it will continue forever to realize incomplete cycles and also public facilities, which should protect the environment, participating in the degradation. It is not enough to give incentives to new energies, discontinuous, with low yields, high environmental impacts. With the rationalization of which I speak, not wasting anything, not only does not produce pollution, but also a lot more energy than we can imagine. Not only biological, but also hydropower. Because if is true that the current hydropower, using high hydraulic jumps produces a lot of energy (about 17% of world energy) it is also true that require large works with high costs to produce it. The depreciation of public capital invested requires many years, and as mentioned above, the implants can also be

counterproductive for collateral damage. But, now, the systems have been implemented, the world's hydraulic jumps are almost all exploited. However, the damage can be overcome, even realizing accumulation of water in the valley in parallel, not in series to water courses, which not only will free the ways of water escape to the sea, but it will produce energy with high returns, despite the recycling of water. In the new hydroelectric, offering myself, the energy is less flashy of almost banal hydraulic jump, therefore, we must exploit other water features that although known, were not used for energy purposes, as the compressibility and the intangibility , which together allow the recovery and recycling at low cost, obviously in systems designed differently. In fact, we can use generous hydraulic schemes from the point of view of energy during the descent of the water, concentrated in a small volume with a pump that breaks the state of surface water inertia, by pumping in the direction of gravitational force and transforming into energy, by turbine, the energy of the water surface position respect to the underlying water. This energy was discovered in 1640 by Evaristo Torricelli, but never used for energy purposes, without the hydraulic jump, because it is necessary to use the vertical intubation of the water and match as mentioned above, a pump and a hydraulic turbine. In addition, exploiting the simple residual kinetic energy is possible to insert the water flow in the same basin, for the simple fact that the static pressure cannot oppose. It cannot oppose because of the characteristics of compressibility and intangibility of water, which in traditional hydroelectric, are not highlighted. In fact, in the current hydroelectric, not only the water drops to fall, but at the outlet, meets the air that has a density almost one thousand times lower than water, or flows into a lower basin, with some meter of water column above the mouth.

It never is having realized the submerged hydroelectric is difficult to explain to ordinary people that for equal water

speed and the weight of the water column on the turbine, the two types of hydroelectric plants produce the same amount of energy, even if the energy takes place by gravity and the submerged is conditioned by the rotation of the pump and the relative small energy consumption, compared to the energy produced. In fact, in the restricted environment of descent tube, if the masses are equal, descending in the direction of the gravitational force, increase in the same manner its own weight during the descent, regardless of the cause that produces the movement. What is strange is the fact that on this matter are silent even scientists who study the ocean currents, the professors and engineers, who design subsea pipelines of discharge and heating and cooling plants. In fact, if the static pressure is opposed to kinetic energy, we may not have the ocean currents, discharge of the water in underwater pipelines and even circulate the water with low prevalence of pumps, in heating or cooling pressurized systems by open or closed vessel. .

It obvious that if you neglect the simple physical principles to produce energy, you end up producing complex , polluting, dangerous and low efficiency energy. I think this is what happened, even though no one wants to admit it. I think that energy and purifying miracles nobody wants to find them to avoid admitting colossal, collective and banal design errors. However, for how long it can last this sort of global conspiracy of silence?

For myself the energy has to interact with the environment protecting it. It should not simply be neutral. The protective energy you can be produced in different modes:

1. Energy combined with purification systems very different from the current ones purifying air and water

together in the same urban centers by means of the elimination of the chimneys replaced by towers of filtrations that, would capture CO2 and fine dust and sewers that, would become purifying air and water, separating water and sludge in vertical pits The water would be purified in limestone scrubber greenhouses along with the air pollution and CO2, producing alkaline waters, while the purified air would rise into the sky through the filtration towers and heat exchange, which could even replace the current outdoor units of air conditioners, which help spread the dust and heat even more the planet with air / air heat exchangers. The sludge separated in the same sewer system at the beginning of the process would be pumped in a line and transferred to special aerobic digesters to produce biogas without emitting unpleasant odors, which would be used for the production of energy with zero emissions of CO2 adjusted for with the same system of filtration towers and calcareous greenhouses. Obviously, this system which provides neighborhoods and city self-purifying was not funded to achieve even small prototypes, although it has tried to make it known in the world through my http://www.spawhe.eu website.

2. Another way to produce environment protective energy is the vertical matching of a pump and a turbine placed in series submerged in depth, in lakes and seas. The operation is very simple: The pump converts the energy of position of the overlying water column into kinetic energy, which is transformed into electrical energy by the turbine. The surface water that is rich in oxygen is discharged into the sea bed which typically is low in oxygen as a result of centuries of organic sewage.
3. Another way of producing environmental protective energy is the vertical matching of a pump and a turbine placed in series submerged in depth, in the oceans by means of floating platforms above the abyssal plains where the great depths have thickened millions of years

of carbonates and nutrients which can be brought to the surface by means of the venturi bottlenecks by making the pipe. Carbonates reported in surface would return the lost alkalinity, while the nutrients increase the abundance of fish, producing food that will serve for the next human food growth.

4. Another way to produce energy that protects the environment is that can be achieved by means the invention of double feed pump on the suction side which may be fed with two different pressures. The upper one coincides with the delivery basin. Since, by recycling the water of the upper reservoir we can insert with the second suction mouth the lower water in the recycling circuit of the upper reservoir. Therefore, it is the same recycled water from the top basin to raise the water from the lower basin. If we consider that recycles water also vertically entails an energy expenditure hundreds of times smaller than the water raised there is also the possibility to insert in the circuit a turbine which produces energy in the descent phase of the water. In fact the water moving downwards invoked by the pump submits its own weight together with the gravitational forces while the water ski upward is minimized by the fact that the riser tube of a much larger section of that of descent can be considered an extension of the upper basin of which the water assumes the form being incompressible and with equal density in the entire volume. So, in a large dock, relation to the water recycled, the water simply changes position passing through the turbine producing power one-way by exploiting the gravitational force triggered by the rotation of the pump which breaks the state of inertia ‘surface water. Until when the pump is in rotation, the system can run indefinitely, producing a lot of energy and consuming very little since it exploit energies of gravitational positions and volumes of water at well above that circulated. In other words we are in an open

vessel recycling. This system can produce energy protecting us from high water but can also replace existing water pumping systems for water distribution in agriculture, industry, purifications which together transport, constitute the major energy expenses of the planet.

5. Another way, which would produce energy protecting the environment, is the one, described above but with the upper recycling reservoir pressurized with compressed air or other gas and the lower basin closed but equipped with vents to atmospheric air that cannot pass the water. In this case the turbine would be inserted under the pressurized tank, to discharge the water in the tank at atmospheric pressure. As we can power a inlet of a dual supply pump that, insert the water in the pressurized reservoir through the recycling loop made with the second inlet, without consuming the water and even the compressed air, apart from that chemically solubilized in water that can be restored with cylinders or compressors. Obviously, this system can be used to produce energy without fuel and without energy accumulators replacing a large part of heat engines with endless transport autonomies to the great means that, can afford the dimensions required by the system. I think in particular to ships, trains, planes trucks, buses and with time, even to cars, increasing the operating pressure and reducing the overall dimensions.

My cleansing – biological energy solutions have simply been ignored and my international patents left to decay. While the hydroelectric energy branded by patent offices as contrary to the principles of conservation of energy and charged with achieving the impossible perpetual motion. Obviously, I was opposed to these decisions asserting that it is not I who do not respect the principles of conservation of energy but are the current hydraulic systems that waste. Whereas the

undersigned agrees that, the perpetual motion is not feasible, but in the water can be realized with small power consumption, combining the characteristics of the water compressibility the combination of pumps and turbines. Above all, it is the lack the invention of dual supply pump on the suction side, which allows you to increase the gravitational and hydrostatic pressure to produce energy and bypass the same forces in the rise of the waters, which must not be wasted. Whereas in pressurized movable hydroelectric to the same system has been added the compressibility of gases. Compressed gas is equivalent to the energy of position, which it is much more economical and more powerful of the energy accumulated with electric batteries. However all this is written extensively on SPAWHE and above all on http://www.spawhe.eu/relativty-and-technology-in-the-new-hydro electric-energy/. Advice to those who have already downloaded the PDF file available in Italian and English to download it again, having provided other technical questions.

Egr. Mr. Gates, this letter is composed of five pages, but the list of those who have not responded to these proposals at least fill dozens of pages. Therefore I conclude that there are only two believe energy miraculous. Others believe for a fee and I can not pay anyone. The question is whether we believe in the same kind of miracle. From one of your latest interview 29/02/2016 by David Biello (http://www.scientificamerican.com/article/world-s-richest-man-picks-energy-miracles/?wt.mc=SA_Facebook-Share), I shared on my facebook page, it seems that although we are both Catholics, we do not have the same conception of a miracle, if you think the production of energy with kites to collect energy from the high-altitude winds, or a nuclear reactor that will not melt down (Ground Power). With all due respect to your conception of a miracle, I still believe also in my system, although those that you pay, they will try to convince you otherwise. I believe in my solutions because I think that

if we are moving toward global warming is because science to invent new things has neglected the basic physical principles and ended up producing complex energy, polluting, dangerous and low efficiency. I also think that in order not to admit colossal, collective and banal design errors, they continue to look for new energy, that would have no reason to be looking for if we truly sustainable path all the roads. I believe that sustainable ways we have not even started. In fact, just flip the pumps, pumping water in the direction of the force of gravity to produce all the energy we need, but if we want to, at the same time, also raise the water to distribute or defend ourselves from the shallow water, we have to do to circumvent the force of gravity by changing the pumps also inside, turning them into mixing of flows with different pressures and insert two ducted suction intakes. If the global ruling class did not do these simple things, he has no right to demand sacrifices from taxpayers to fund energy with low returns just because they are less polluting than fossil, for the simple fact that even fossil energy would be more expensive than new hydropower.

Egr. Mr. Gates I think that if you have decided to spend your money to stop global warming, help the poor to survive, create jobs, waiting for your employees develop your new energies, not to waste any time, you may begin to fund these projects. Indeed, you may consider them as your, as a man or entrepreneur. I employed a transversely life, as a technician poorly paid, just to learn how to design them. I did this to see them trashed by people knowing develop science and technology; do not know how to design the systems globally, because they cannot create synergies between those sciences and technologies. Currently, in the entire universe, there is no complete system from an environmental point of view. No matter whether industrial, energy or depurative. A plant is complete only if closes all cycles, main and collateral. When cannot do it alone, it is to be connected to structural works

that connect it to other systems, through the aerobic, anaerobic, pressure or gravity. This is not utopia but work organization, which should also know the designers of the power equipment, purifying, not only designers of manufacturing production, which, however, only apply to increase productivity, not to protect the environment. In the absence of public binding regulations would be crazy to increase the production costs. It is possible that in 2016, there is in the world no planned neighborhood with water and air self purifying systems, while no one takes out a dollar to verify if the limestone greenhouses or overlapping biological ponds are efficient, that without energy costs could be purified and desalinate million cubic meters of water, of course combined with hydroelectric systems with water recycling. All this could be done without building, reservoirs and dams, thermal power plants, or nuclear power.

There are no magic solutions, but rational and irrational solutions, complete and incomplete. No energy solution, isolated, can be defined as a rational, comprehensive, just think of the transport and accumulation of energy, that are not need in the systems that I propose.

Dear Mr. Gates, I think you have already entered, with merit, in human history, and I think that you can enter it even more if, as an outsider, ports in the world environment and energy, not mine or your solutions, but above all, the right energy in the right place, to rationalize, even simultaneously purifying systems. The SPAWHE system is an example of rationalization that should have spread to the United Nations, together with I.P.C.C. publications, but not even Mr. Al Gore, who is the flag bearer of these messages, knows SPAWHE. It is not true that the blame for the failure to advance the art in the field of environment and energy is due to the absence of a world government. It is precisely due to the absence state of the

art. In fact, as in the construction of the car, were internationalized safety devices such as airbags, ABS, catalytic converters, CO2 emissions limits, just as it could be done in the civil and industrial buildings, to delete the smokestacks, in the way of purifying the water and urban air. Similarly if it were established that hydropower with water recycling is dozens of times cheaper than coal, or at least equal to coal, could in the interest of all, replace the thermoelectric power, already since many years. For the transitive property, also other energies would not be competitive and would have no reason to get paid incentives by taxpayers. Moreover, in assessing the effectiveness and cost of energy is also expected interactive effect with the environment, which is another point in favor of this energy, which no one takes into account, preventing even an experimentation by four money that only a retired isolated from the global conspiracy of silence of the experts, cannot afford.

I am sure that if you finance some projects the powerful who are now silent, they will want to help you. It known that all want help the winners. However, these things certainly you know more than I do. Waiting for your kind reply, hoping to reach you above all, by word of mouth. Thanking those who will inform you of the existence of these projects, I send you

Best regard

Luigi Antonio Pezone