HERM draft seven

Abstract

The energy for human thought and human efforts derives directly from renewable solar energy. Just as energy units can be standardized, human energy can be standardized and used as a renewable energy basis for considering values in a human economy. The Human Energy Renewable Measure, the H.E.R.M., is a starting point for measuring the fairness of human economy/currency systems.

How do we know what is fair without a measurement? How does a person know value with out a standard?

Creating an equitable economic system for human energy(physical and intellectual) requires a base equation for the value of human energy input. A base value can be standardized with a chosen measure/equation that expresses human physical and intellectual effort. This standard valuation would then be based on real economic worth and can be used as a peg for the currency of any country.

The H.E.R.M. can be augmented by special abilities and higher education but the base Human Energy Renewable Measure always guarantees four rights to each person, education, healthcare, food and shelter, which would be part of the Gross Domestic Product.

Introduction

Throughout history there has never been a base measurement for human renewable energy (thought and physical effort). Our economic system functions on subjective valuations of human accomplishment (wages) and a belief system in the form of currency, that is based on nothing.

A system of human energy (physical and intellectual) valuation needs to be created, because human effort is what runs economies and is its source of value; there for should be the peg for its currency. The
H.E.R.M., Human Energy Renewable Measure, is a way of thinking about creating a base equation for such an economic system.

How do we know what is fair, without a measurement? How does a person know where he is if he has no map, no measure for distance, no compass or other locating devise? There is a joke about this. A man had to bail out of his plane and landed in a field. A hiker appeared nearby so the man asked him where he was. The hiker said, "you are in a wheat field." The man said, "you must be an economist." The hiker said, "yes, but how did you know?" The man replied, " you just gave me perfectly accurate information and told me nothing."

There is a need for a measure/axiom for human renewable energy. This measurement is needed so people every where can have a base number on which to calculate their own value, assess the fairness of their economic systems and on which to base the value of their currency. Then real adjustments will become clear as to how the wealth and resources of each nation can be distributed to benefit the majority of human population. An economic system that has currency pegged to the value of human renewable energy empowers all human intelligence to design the best economic solutions and will become organically self adjusting toward the benefit of everyone.

If we are going to create a type of currency that would stabilize value and present less opportunity for inflation, deflation and manipulation, we need a decentralized resource everyone can produce and has real free market potential, for currency to be based on. Presently, the value of our dollar, and by extension the value of currency throughout the world, because the dollar is the "preferred currency", is linked to fossil energy prices. Fossil energy is the amplifier for human energy that has made possible the forms of human civilization we know today. Without it we would still be doing

everything 'by hand'. But these fossil resources and prices are controlled by a small group of people in a subjective manner. Fairness will start to evolve as we create more renewable sources for energy, gradually replacing fossil fuel, and peg currency to the most basic renewable energy, human renewable energy, physical and intellectual.

Pre-industrial economies

For almost all of human existence on earth societies have been powered only by humans themselves. They and we derive all of our energy for thoughts and actions from the energy that comes to us via the sun. Our air, water, and food are all provided by sunshine on plants and sunshine distilling fresh water into the atmosphere for our rain, rivers, and lakes. This renewable energy supply is roughly 4 giga-joules for every adult human existing now and whoever existed over the millions of years of beings we'd call human.

The solar energy input powered our food gathering, our reproduction, our social interactions and our society including the arts and our wars and is still growing our population numbers. It was enough energy for a long enough time to allow the evolution of communication, verbal and written, the storage and transfer of information and the development of science and technology allowing industrialization and the use of fossil fuel energy resources.

Energy from economic man

In 1957, Rear Admiral Hyman G. Rickover, USN, estimated that, "Man's muscle power is rated at 35 watts continuously, or one-twentieth horse power." (he was thinking of the typical army enlisted man) Ref 1

This statement both quantifies an energy basis for humans and also makes comparison with another quantified standard for energy measurement, the horse power. Certainly people as well as horses come in different physical capabilities. However, for the basis of civil commerce the power can be standardized, 35 watts for people, 550 foot-pounds per second for horses.

A reasonable estimate for human renewable energy can be expressed in terms of human peddled bicycle-like devices generating electricity for a specified amount of time, similar to the way horse power was standardized. The standard is somewhat arbitrarily set as 20 human energy hours = 7.2 mega Joules, (Dr. David Borton, RPI).Ref 2 The 20 hours represents a desired length of a basic work week and the energy represents hard physical effort for that time interval by someone in good physical condition. We can break that down as an individuals one hour of energy is standardized to 360,000 Joules = 360 kJ. With the Human Energy Renewable Measure standardized to equal to 20 human energy hours (or 7200kJ) It becomes a useful unit that expresses human energy similar to other numbers we attach significance to like, inches in a foot, degrees of temperature, ounces in a pound, horse power or any other valuable measurements/equations we use so that there is a starting point agreed upon for transactions, experimentation, travel, time etc.

Human existence economy defined as GDP

Presently, our GDP concerns itself with the human energy that is paid with wages. These wages can become more fair when pegged to a base equation for human intellectual and physical labor (the H.E.R.M.) Wage enhancements based on agreed upon subjective multipliers (higher education, pleasant personality, creativity, etc.) can be applied but a limit must be set in the form of a pay ceiling, so no one makes more than maybe, 50 times the base income. This is a nod to 'inherited knowledge' which makes possible all that humans collectively know. 'No man is an island" the saying goes, and no one can become wealthy without the human community in which they live. No

one is discouraged from working as much or hard as they want but a 'ceiling' is necessary to discourage labor/money hoarding.

There is another very important aspect of human energy that is not calculated in the GDP, but with out which the GDP cannot exist. This is what we have defined as the 'human existence economy'. It is noted that human existence hours per person per year equal 8,760 hours. Of these hours a 20 hour human work week would be equal to say 2,000 hours per year. The rest of these hours that are not used for sleep are human energy used to create a support structure for the 'work hours'. The 'human existence economy' provides essential support in the form of child care, elder care, volunteer work of all kinds, maintenance of the home, preparation of meals, psychological council, creative activities (writing, music, painting), innovative thinking, etc. In a H.E.R.M. economic system the 'human existence economy' must be included in the GDP and supported by a base wage that guarantees every person no matter what age or ability, education, healthcare, food and shelter. This equals freedom. The success of nations that develop H.E.R.M. economies is rated by how well it takes care of its population.

Energy for currency basis

But how can we value the unique abilities and differences among individual humans in the HERM system of measurement? We can trade with the HERM value if we put a decimal value on it of 100 of whatever currency used. This kind of currency would be a no interest currency. From this base point of valuation amplifiers for the value of each persons hours of work can be applied. The REGO (Renewable Energy Generation Output, (concept by John Finnerty.) shows the quality of individual human effort helping the free market work. (For instance each year of education beyond a certain point would be equal to some agreed upon amount, years of work experience in a specialized field, unique abilities for writing or the arts and sciences, all these things can make the hour wage higher, but not extraordinarily higher. There needs to be a ceiling as well as a base (as discussed previously). Individuals who use more resources/wealth should pay more back into the economy (taxes, etc.) to sustain the economic system they benefit from. The debt an individual owes to the collective human intelligence (based on thousands of years of human development and inherited knowledge, which is the true debt!) must be taken into account, because we all sink or swim together now that most of us have chosen to live cooperatively in cities, states and countries.

We go back to the HERM to see where balance is, by holding to a base measure for human renewable energy. No one can be denied this base value, whether they can work or not, for they are all still consumers and this creates economic stimulus as well. The HERM is a guarantee of education, healthcare, food and shelter to each individual from birth.

The promise of the HERM can only be reality if human population world-wide is in balance with the sustainable and renewable use of the natural resources on earth. This is a very important aspect that must be addressed scientifically and peacefully. Computers can be used to study the essential systems, human and natural, determine their needs and calculate workable balances. We already have the tools available to determine the best practices on earth.

Conclusions

The value of human thought and effort can be based upon a standardized measure of human physical work. The standard can be multiplied by physical and intellectual values that add to the agreed upon base wage but cannot exceed an agreed upon 'ceiling'. Human individuality and quality of effort are recognized and rewarded then focused to the benefit of everyone.

The HERM principals need to be further clarified so they can begin to influence the formation of an efficient, sustainable and equitable economic system. We welcome input on these ideas.

References

1 Rickover, Rear Admiral Hyman G., Energy Resources and Our Future, Annual Scientific Assembly of the Minnesota State Medical Association, May 1957.

2 Borton, David N.,
http://www.oeic.us/articles/renewable_energy/solar_energy_in_our_lives_not_in_the_news

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