Economics can change the world with renewable energy assignment

Large hydrophone and new renewable together are referred to as modern renewable. The 20th century marked the emergence of fossil fuels which represented less than 20% in the middle of the 1 9th century. Until then, renewable – mainly fuel wood -supplied the bulk of the energy needed for all purposes ranging from home heating to cooking and fuel for manufacturing. These energy sources allowed the industrialized countries to achieve a high level of development benefiting at least 1/3 of the world population.

However fossil fuels were cheap and abundant through most of he 20th century which discouraged efforts to optimize energy systems and reduce losses. The continued heavy reliance on fossil fuels as the main source of energy is therefore facing serious problems which are becoming evident as time goes by for the following reasons: 1. Reserves of fossil fuels are finite and by the end of the 20th century showed signs of exhaustion. 2.

Fossil fuels have impurities such as sulfur dioxide, particulate matter and others which became a main source of pollution at the local and regional level. 3. The combustion of fossil fuels has the unavoidable result of producing carbon oxide which is changing the composition of the atmosphere, as well as other greenhouse gases. Before the Industrial Age the amount of CA in the atmosphere was 0. 027%, but it has been growing steadily and reached 0. 0338% in 2008. Such increase is the main source of global warming and the associated climate changes.

Carbon dioxide emissions from countries have established since 1 990 but are growing rapidly in developing countries at a rate of approximately 4% per year which is reflected in the world emissions which are growing roughly

600 million tons of CA per year. Carbon dioxide emissions are the dominant component of greenhouse gas emissions, but represented in 2006 only 69, 6% of the total emissions. The remaining 30. 4% are methane, nitrous oxide and fluorinated gases with high global warming potential which are: SF (sulfur hexafluoride), Huffs (hydrocephalus's) and PECS (perturbations).

To reduce CA and other GOGH emissions became thus one of the most urgent tasks we are facing today. There are two approaches to handle this problem: 1 . Use energy more efficiently, consequently emitting less CA and extending the life of fossil fuels reserves. 2. Increase the contribution of renewable energies in the world energy matrix. The amount of energy required to provide the energy services needed depends on the efficiency with which the energy is produced, delivered and used.

Gains in energy efficiency are usually measured by indicators, one of which is called energy intensity and defined as the energy necessary (E) per unit of gross domestic product (GAP). Reduction in the energy intensity over time indicate that the same amount of GAP is obtained with a smaller energy. The reasons for such decline are a combination of the following factors. * Structural changes in industrialized and transition countries which can come from increased recycling and substitution of energy-intensive materials improved material efficiency and intensified use of durable and investment goods. Shifts to services and less energy-intensive industrial production. * Saturation effects in the residential and transportation sectors. Since more than 80% of the energy used in the world today comes from fossil fuels the reduction in energy intensity is reflected in a reduction in carbon intensity. As can be seem there is a steady decline in the carbon intensity in COED

Mounties. In non-COED countries there was also a decline but it has stabilized after the year 2000.

Over the next twenty years the amount of primary energy required for a given level of energy services could be cost-effectively reduced by 25 to 35 percent in industrialized countries. Reductions of more than 40 percent are cost-effectively achievable in transitional economies within the next two decades. In most developing countries – which tend to have high economic growth and old capital and vehicle stocks – the cost-effective improvement attention ranges from 30 to more than 45 percent, relative to energy efficiencies achieved with existing capital stock.

The combined result of structural changes and efficiency improvements could accelerate the annual decline in energy intensity to perhaps 2. 5 percent. How much of this potential will be realized depends on the effectiveness of policy frameworks and measures, changes in attitude and behavior, as well as the level of entrepreneurial activity in energy conservation and material efficiency. Standards are central to the successful implementation of energy efficiency improvements.