MANAGEMENT ENERGY SOURCES - A MAJOR PROBLEM FOR THE FUTURE OF HUMANITY

MANAGEMENTUL UTILIZĂRII SURSELOR DE ENERGIE – O PROBLEMĂ MAJORĂ PENTRU VIITORUL OMENIRII

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Abstract: *Current economic development model based on continuous growth, is always linked to an increased energy consumption. Although a small fraction of world population has no access to electricity and two fifths of the population covers its energy needs in a traditional way, mainly from biomass (firewood, straw, reeds, etc.), the share of these categories is in a continuous decline. Energy reserves and energy resources also include what was not yet discovered and any increase in energy can be produced from existing resources on new technologies.*

Key words: *green energy, renewable energy, environment, econimic prosperity*

INTRODUCTION

It is a known fact that the current model of economic development based on continued growth, is always indissoluble linked to increased energy consumption.

The accelerated growth of demand for energy resulting from both demographic explosion (the world population increased from 2 billion in 1927 to over 6.5 billion today and is believed to pass 9 billion in 2050), and the multiplication of countries such as India, China or Brazil, are turning quickly to the type of economy characterized by an enormous energy consumption - modern infrastructure, booming industry, intensive agriculture, high share of services, high technology in computer science and telecommunications, etc..

Although a fifth of world population has no access to electricity and two fifths longer cover its energy needs in a traditional way, so mainly from biomass (firewood, straw, reeds, etc..), share of these categories is in decline.

MATERIALS AND METHODS

To ensure the required increase in production rate of projected increase in consumption is estimated to be necessary investment totaling $ 16.500 billion, half of them in order to build new power plants.

The amount of energy received in this way the sun is 10,000 times higher than the current primary energy consumption, such as through the development of effective methods of capture, providing long-term energy needs would be a insoluble problem.

RESULTS AND DISCUSSIONS

Of total energy production, oil supplies 40%, gas 22.5%, coal 23.3%, while 7% hydroelectric and nuclear energy only 5%. Globally, the share of traffic and transport the oil consumption has increased in the last three decades from 42% to over 57% energy needs of this sector will continue to grow faster than the overall average of 1.7%.

Except conventional oil deposits, where required increase compared with the situation is particularly critical, however, that reserve is to provide comprehensive coverage of long-term energy needs, or even to achieve that level of efficiency of the capitalization of alternative energy sources which make profitable use widely. Although there are significant deposits of unconventional oil (bitumen, oil shale and tar sands), their exploitation not yet been profitable, which would still be expected to happen as rising oil prices conventionally, but even when it is believed that their share of 5-10% will not pass until 2020.

Energy resources are available to be used with current technologies.

Energy reserves and energy resources also include what was not yet discovered any increase in energy can be produced from existing resources on new technologies.

Besides the mentioned consequences of the gradual depletion of fossil fuel resources, ecological effects of their use, global warming, climate change in the pace today, advocates for further efforts to exploit alternative sources of renewable energy. It is currently believed that the hydropower potential is 9 to 12 times higher than the existing plants. Photovoltaic Engineering has achieved a yield of 15%, so only 1% of actual area occupied by meadows and pastures should be disposed of solar collectors could be covered the entire current energy consumption. A similar area is currently occupied by the hydro lakes, but that energy production per unit area is 50 -100 times smaller than the photoelectric cell.

Considerable potential is the wind: long-term, it is estimated to exceed five times current energy consumption-only areas with large pillars cover giant would be hard to imagine not only the landscape considerations, but also for side effects and sound pollution or birds endangering

Last but not least, an important contribution to preventing a last minute catrastofe climate, as well as to mitigate risks and overcome in the near future to achieve peak production of oil and natural gas can bring increased efficiency of resource use, reducing specific consumption, sound economic energy through measures that are, in large part, to reach us all.

Causes and effects of global warming

Global warming in the twentieth century is very likely caused by rising concentrations of greenhouse gases by anthropogenic origin. It is possible that emissions of greenhouse gases have a much greater contribution to the warming climate. Their effects were mitigated by volcanic eruptions produced in this period and by aerosols produced by industrial activities.

Effects observed at a global scale (warming atmosphere and oceans, melting glaciers and polar caps, etc..) Supports the conclusion that it is very unlikely that they have only natural causes. Warming of the climate system can be ascertained in several ways.

Global concentration of **methane** has increased from 715 ppb (parts per billion) in pre-industrial to 1732 ppb in the early 1990s, reaching 2005-1774 ppb. The current value of methane concentration far exceeds 650.000de values in recent years. It is likely that this increase is the result of human activities, but there may be other sources which were not yet well defined.

Global concentration **nitrogen oxides** increased from 270 ppb, between industries, to 319 ppb in 2005. Growth rate remained roughly constant since 1980. More than one third of nitrogen oxide emissions result from human activities, especially agriculture.

The combined effect of **carbon dioxide**, methane and nitrous oxide led to an increase of 2.3 W / sqm radiative balance. Likely growth rate in the period after 1750 is the largest in the last 10,000 years.

CONCLUSSIONS

Humanity is thus increasingly dependent on energy sources, which ensure that concern for their long now to be an important component of political strategy at national and supranational. Studies undertaken in this direction but unequivocally show that existing resources can not keep up in their current structure, with increasing demand and there is potential to reach crisis proportions, with economic consequences, social and political catastrophe. A second high-risk, predominantly arising from energy production technology is accelerating the greenhouse effect, mainly due to (but not only) the emission of carbon dioxide to effect drastic consequences for climate stability, which are now seen on .

The fact that we are witnessing a global warming of Earth climate is unequivocal. We now have enough data to confirm an overall increase in ocean temperature and atmosphere, you should see a rapid melting of glaciers and a rise in sea levels.

REFERENCES

1. **CARMEN ZAHARIA** - Energy and Environment The University Publishing House. I. Cuza 2004;
2. **TATARESCU F** - 1980, energy-conversion unconventional techniques, Technical Publishing House, Bucharest;
3. **ȚUCU, D., MNERIE, D.,** - 2007, unconventional fuels for sustainable energy solution, AGIR Bulletin;
4. GD 1535/18.12.2003
5. *** www.prowind.de