

RENEWABLE ENERGY IN TOURISM

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Summary

Recent reports published by the International Energy Agency and U.S. Department of Energy, regarding the global energy outlook for the first three decades of the XXI century, warns of global trends on energy demand, increasing dependence on energy imports, coal use and volume emissions of greenhouse gases, tourism industry being one of the biggest energy consumption industry.

Uncertainties on different models of regional development and access of the world to traditional energy resources require a change of orientation towards long-term scenarios for assessing energy domain, increasing the share of energy from renewable resources being one of the solutions.

Intourism the renewable energy is a solution for a positive impact on environment , reduced operational costs and even won an extra-profit.

Cuvinte cheie: energy efficiency, travel - tourism, costs, green certificates, renewable energy

Clasificare JEL : M40, M41

1.Introduction

In the global economy is registered a growing interdependence of extensive international energy and energy networks. According to World Energy Outlook 2008, \$ trillion will have to be invested in global energy supply infrastructure to meet global demand to provide energy projected in 2030. Availability of resources necessary for this huge investment effort is a complex global challenge.

Participation of as many states as well as private actors in these efforts aggregates, will fuel optimism that public funds are directed to materialize in the investment sector power generation and distribution, the necessary infrastructure is built and the supply networks crossing the globe work without interruption, ensuring energy security.

It requires a well structured global energy policy, likely to shift the world to a new stage defined by sustainable energy. And this establishes an important connection with globalization.

A modern vector leading to a series of new challenges is that most economically advanced countries do not have enough oil and natural gas reserves to prop up their economies and increase fuel consumption.

However, fossil fuels emit carbon dioxide into the atmosphere. Since the beginning of the Industrial Revolution concentration of carbon dioxide in the atmosphere increased by 38 percent.

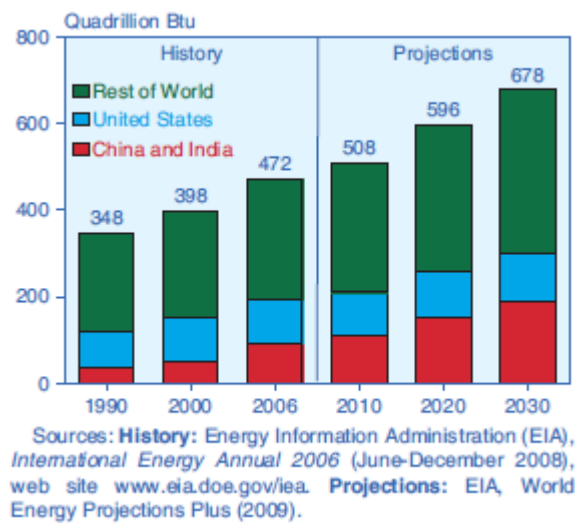
Evidence that human actions of technology and industrialization lead to world climate change is compelling and future climate change risks are considerable. The benefits of strong, coordinated action brought against climate change far outweigh the economic costs from necessary investment.

Governments intervention is necessary, globally coordinated to ensure that energy markets operate in a manner conducive to reducing greenhouse emissions.

2. Renewable energy in tourism

In the present context it sees a substantial increase in global energy consume, tourism is one of energy intensive industries. Among non-OECD countries, China and India are economies recorded the highest growth rate in energy demand of non-OECD countries, estimating that they will be the next biggest consumers worldwide.

Figure no.1 Estimation of increase of energy consumption until 2030



Thus, we need innovative and cost optimization initiatives and energy consumption in all areas of the tourism industry.

2.1 Initiatives regarding renewable energy in accomodation

The hotel industry is one of the most visible and powerful sectors of the tourism industry. With increased attention from the public on the impact of business environment, management of these corporations are required innovative solutions.

At this time the focus is directed on renewable energy and energy efficiency, recognizing the benefits that can be gained by using energy efficiently.

It is an industry that is driven by consumer who is interested in sustainable and suppliers is becoming more aware of energy efficiency strategies. It is important to note that the use of green energy industry as a whole is a motivating factor for the hospitality sector.

Competitiveness, saving resources and recognition are only three of the benefits that can be won. Adopting strategies based on renewable energy, is leading to at least two positive effects demonstrated by companies who have already applied these strategies: putting a finger in environmental impact and reduce operational costs. Hotel chains such as Fairmont Hotels & Resorts, Paradise Bay that have already adopted strategies through renewable energy efficiency exhibited the best practices from experience at the March 2008 edition of the Reti - Renewable Energy Tourism Initiative.

Some of these initiatives translate into:

- Changing the lighting - use as much natural light and economic resources
- Acquisition of energy produced from renewable resources: wind, solar, hydro etc

Generate their own renewable energy resources: solar panel installation and support of a significant part of consumption from own resources. Some companies have found that besides the fact that they cover their own consumption, can make an extra profit of excess and unused energy product, marketed in the network.

2.2 Initiatives regarding renewable energy in air lines

Dramatic climate changes have made the aviation industry vulnerable to the idea of investing in energy efficiency, conservation efforts and other initiatives in renewable resources.

Thus, large companies in the sector have focused on:

Fleet modernization, focusing on the consumption of fuel economy and reduce emissions.

Building green buildings, airports or offices, to be self-supporting with energy by renewable energy.

The use of bio fuels.

2.3 Initiatives regarding renewable energy in sky resorts

Can be easily argued that ski resorts industry is more interested in the impact of climate change. The weather can alter the entire environment of a ski resort. The slightest change in temperature will dictate whether

skiing on natural snow and snow produced by humans, increase or reduce operating costs in the opening period by delimiting resort - close season.

Reducing carbon emissions is the main objective in this sector.

Measures to be taken are also installing photovoltaic systems producing own.

Install equipment to measure carbon emissions.

3. Green Certificates Market – opportunity to face the new initiatives in using renewable energy resources

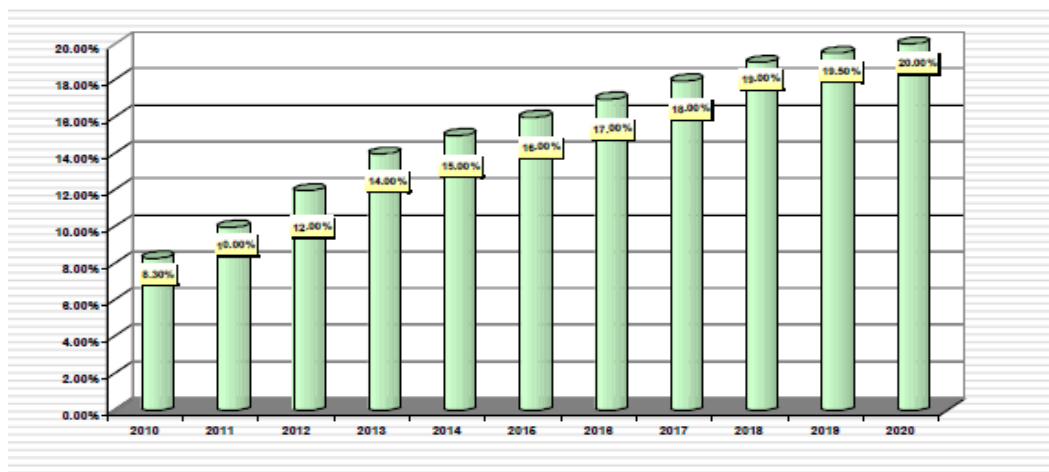
Power producers made and delivered the electricity from renewable sources eligible for support through green certificates scheme, according to a decision taken by the Government.

In Romania, green certificates system is still forming, but the green certificates support scheme applies to these renewable energy sources: hydro electric power used in groups with a maximum installed capacity of 10 MW, wind, solar, geothermal, biomass, biogas, landfill gas (gas deposits), gas fermentation sludge from wastewater treatment plants.

Producers of electricity from renewable sources that benefit from this scheme to support participation in separately so the electricity market, selling electricity at market price, and the green certificates market by trading green certificates.

To promote electricity production from renewable energy sources in Romania applies mandatory quota system combined with green certificates trading system green. Annual mandatory quota of green certificates were 5.26 percent for 2008, 6.28 percent for 2009, 8.3 percent for 2010-2012, will be nine percent in 2013, 10 percent in 2014 and reach 16.8 percent for 2020.

Figure no.2 Mandatory quota for green certificates established in Romania until 2020



System operator will issue monthly an amount of green certificates for electricity from renewable energy produced and delivered to the network.

Three green certificates will be issued for each MWh delivered to the electricity producers of electricity from solar energy, a green certificate for each MWh delivered in the electricity produced from hydroelectric power plants with installed capacity of more than 10 MW and were not retrofitted, a green certificate for each MWh delivered in the electricity producers of electricity from renewable sources other than those mentioned. Electricity suppliers are required to purchase annually a number of green certificates equal with the mandatory quota value and the amount of electricity supplied to final consumers annually.

Besides the major benefits that impact on the environment by using green certificates system bring other benefits.

Green certificates can be used as a guarantee of origin can be sold beyond the borders of the country, provides flexibility and transparency for the market.

Green certificate system has proven to be robust and resistant to fraud and to have a positive economic impact and long term business, but also for consumers.

Environmental investments is a commitment that the world today will have to respect. All investments to be made will be found short-term electricity prices, but long term positive economic impact in several ways:

- Each country will have access to cheaper energy, because there will be no shipping costs, import and other taxes on energy access in other countries where resources are greater;
- Each country will have energy security

• Those who are able to invest in production facilities from renewable resources will benefit short enough to recoup their investment and increase its turnover and profit by applying green certificates scheme motivation. For each MW produced from renewable resources will receive between 1 and n green certificates that each country will decide by law. According to law 220/2008 of a green certificate value is between min. € 27 / CV and max. € 55 / CV to the average exchange rate in December of last year, calculated by the central bank adjusted annual consumer price index for Romania.

Thus countries that implement such systems have an advantage in several ways. There is still risk of double funding for motivating manufacturers where there is no well-established law.

4. Conclusions

Energy has become a strategic factor in global politics, a vital component and a cost factor for economic development and progress of society, creating a series of major concern worldwide, including in tourism.

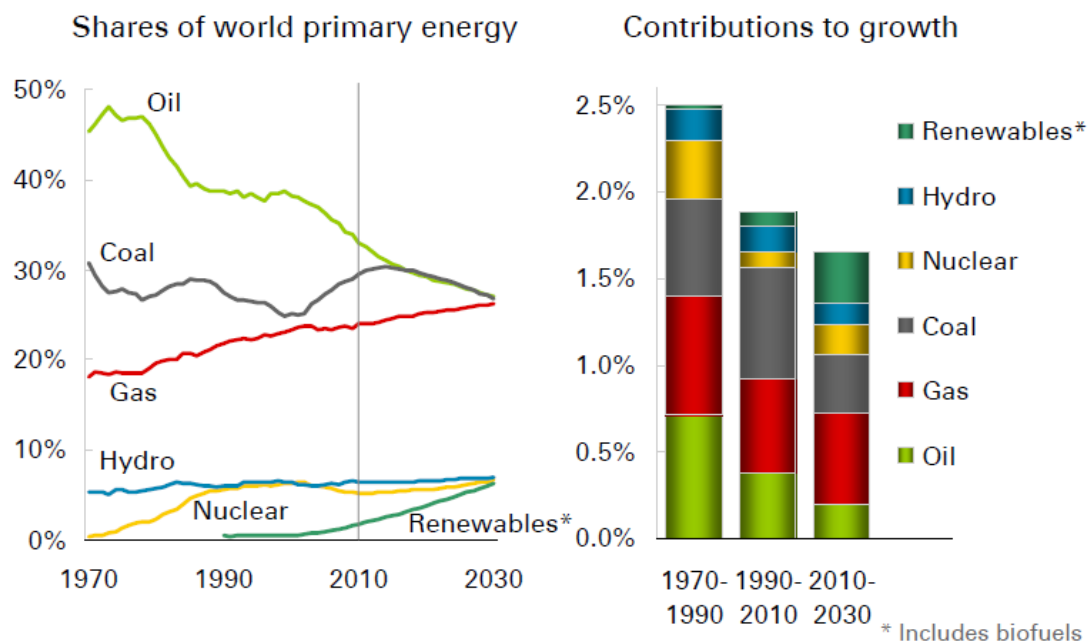
If the primary energy resource limit, to reach sustainability in this area is needed that energy to be produced, provided and consumed in a more efficient way than before. If no changes are made in the production, transport and energy consumption, humanity could face a major energy crisis in coming decades.

Increasing energy supply security at affordable prices and tackling climate change are two major concerns and challenges of contemporary society. The security of energy supply and climate change have implications for foreign and security policies.

The above underlying energy policy reorientation countries are net importers of energy, to increase efforts to improve energy efficiency and renewables.

Thus in future forecasts an increase in energy produced from renewable resources according the International Energy Outlook 2011 forecasts .

Figure no.3 Forecasts regarding sources of energy production at world level



Humanity is on the verge of a period of unprecedented in energy field. The effects of turbulence on global energy markets have been largely mitigated in recent years following liberalization, adequate supply and import opportunities.

However dramatic changes loom. Energy prices will be affected by the great need for investment in the energy sector, as well as carbon pricing and higher international energy prices due to increased demand in emerging countries. Competitiveness, security of supply and climate change mitigation objectives will be undermined unless the electricity networks will be upgraded old facilities will be replaced by competitive alternative, cleaner and more efficient energy will be used throughout the energy chain.

The energy industry recognized the scale of the challenges. Security of energy supply, efficient use of

resources, affordable and innovative solutions using renewable resources are crucial to quality of life in all areas, including tourism.

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