

Sustainable Energy Vs Sustainable Development from Vedic Days to Modern System of Education

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Abstract: The changing scenario of declining fossil fuels demands that alternative source of sustainable energy of future will have to be developed and linked to the developmental process globally. Technologies today promote sustainable energy generation has become possible in the form of nuclear power, hydroelectricity, wind mills and tidal waves. Generation and use of Hydrogen energy as a source has been established in algae, gasoline, sewage, and electrolysis of water, natural and artificial photosynthesis of plants by nanotechnology techniques. Hydrogen is a clean fuel and an energy carrier, can be a substitute for liquid and fossil fuels, Future energy demand of world's population can be overcome by hydrogen energy. Research, development and demonstration projects of hydrogen energy consumption in industrial and public domain in India is in a progressive way. Hydrogen is a renewable source of future because of its cost effectiveness and low environmental impact. It's a green energy with green power having green house gas (CO₂) reduced benefits. The presentation advocates and emphasis on for research on clean, renewable and economical sources of energy for domestic, industrial and defense. Hydrogen as source of this will be the future of any nation. Its generation and transmission will require innovative methods of electronics, storage and dissemination. Urgent attention is needed in India on this so that we are not left behind and become dependent on others for technology and its implementation. Vedic Prayer – "Grant us those riches that cause the prosperity for All!"

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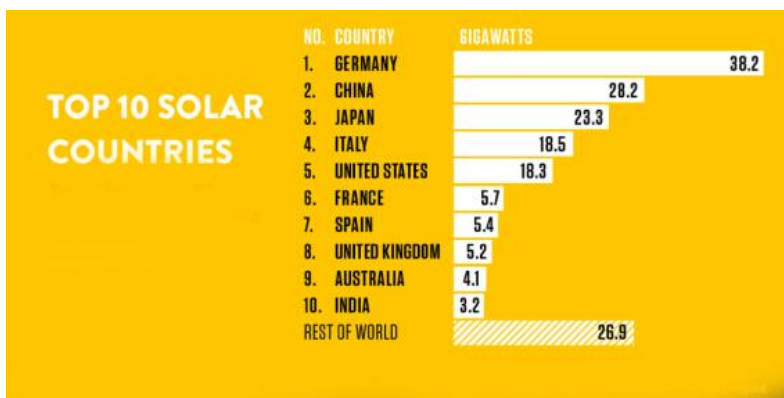
I. INTRODUCTION

Energy continues to remain as a primary problem for both developed and developing countries. Its use in industry, transport, surface, arial and marine, domestic is constantly increasing due to population growth.

The conventional sources of energy like coal, petroleum and gas represent a non-sustainable source because of their availability in future is extremely limited for the last two decades. There has been an intensive research on alternative sources of energy which are sustainable. These have been related to ensuring sustainable development and provide a quality of life. These sources do not disturb the ecosystem; do not cause pollution and are not detrimental to bio-diversity. Technologies have been developed for treatment of solid and liquid waste and for generation of power by using solar radiations, wind and tidal waves. Nuclear power nevertheless is a rich source of energy but its dangers are well known.

From a historic perspective the quest for clean energy has been an issue from the Vedic times. Solar radiations have been considered to be the source of cosmic energy which has been used by saints and *rishis* to meet the demands of energy consumption. A careful study of Vedic literature is essential to establish continuity between modern technologies and the technologies of previous era.

Urgent attention is needed in India for its generation and transmission by innovations and implementations. As environment management and reconstruction by innovative technologies has been a major challenge. We have to advocate and emphasis for research on clean, renewable energy.



II. METHODS OF ENERGY PRODUCTION

It is necessary to understand that clean, renewable and economic source of energy is available through eco-friendly technologies. Such energy is required for industry, defense mineral exploration, agriculture, biodiversity, maintenance of food chain.

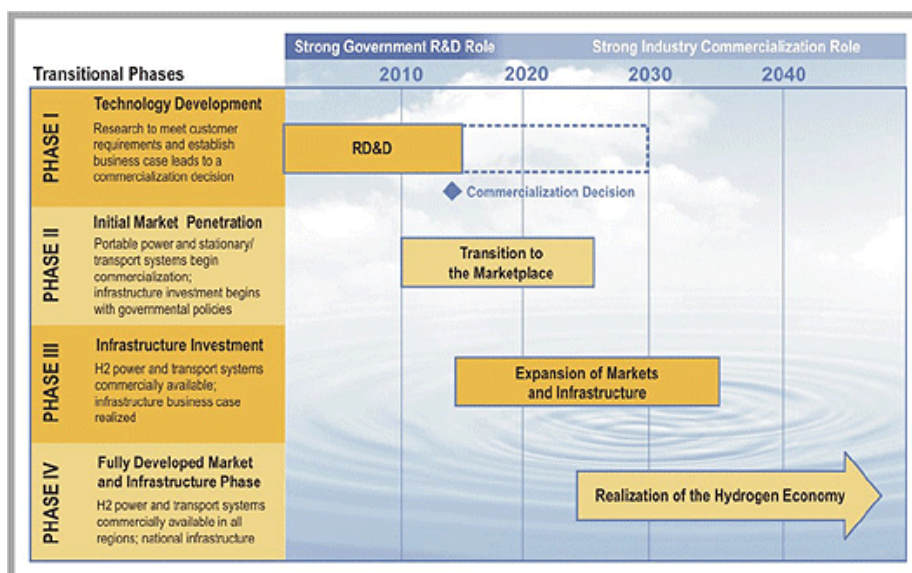


Figure. Realizing the Hydrogen Economy Chart

Hydrogen is considered now as the prime source of energy. The technology for its production is worked out in many countries France, Japan, USA. It has been used to run trains, automobile and industrial units. The generation and transmission of this world require efficient system of storage and dissemination so as to reach at every home. This would mean the realization of simple concept which means energy for all. New technology development gifted us Hydrogen cells which are rechargeable and are used for running vehicles and electronic gadgets without causing any pollution.

III. CONCLUSION

Intensive efforts are required by universities and research centres in India to work on this extremely important issue. This will require pulling of human resource and technical expertise. The generation and transmission of this sustainable source of energy is required new system of transmission.

REFERENCES

- [1]. D.Simbeck and E.Chang – **Hydrogen Supply: Cost Estimate for Hydrogen Pathways** – Scoping Analysis- National Renewable Energy Lab, 2014.
- [2]. Comparative study renewable energy best universities for green sustainable energy, 2014.
- [3]. National Hydrogen Association; United States Department of Energy. “The History of Hydrogen”.*hydrogenassociation.org*. National Hydrogen Association. P. 1. Retrieved 17 December, 2010.
- [4]. Nuclear Energy in a Sustainable Development Perspective, OECD Nuclear Energy Agency, 2000 (ISBN: 926418278X).
- [5]. Trends in the Nuclear Fuel Cycle: Economic, Environmental and Social Aspects, OECD Nuclear Energy Agency, 2001 (ISBN: 97892964196643).

- [6]. Long-term management of radioactive waste – Ethics and the environment, C. Pescatore, NEA Newsletter, Spring 1999, Volume 17, No 1, OECD Nuclear Energy Agency.
- [7]. Deciding for the Future: Balancing Risks, Costs and Benefits Fairly Across Generations, A Report by a Panel of the National Academy of Public Administration for the U.S. Department of Energy (June, 1997).
- [8]. Rio Declaration on Environment and Development, United Nations Environment Programme (1992); Declaration on the Responsibilities of the Present Generations Towards Future Generations, United Nations Educational, Scientific and Cultural Organization (1997).