Research Paper Management

FDI Opportunities in Indian Renewable Energy Sector

Mr. R.Narayanan Project Manager, M/S National Contracting Company Ltd.,Coimbatore – 41, Tamil Nadu.

*** Dr. R. Hamsalakshmi** Assistant Professor in Commerce, LRG Government Arts College For Women, Palladam Road, Tirupur- 641 604, Tamil Nadu.
* Corresponding Author

ABSTRACT

The Indian power industry will add nearly 45,000 megawatt (MW) to its total installed capacity by 2013-14 to the existing production, according to a research report. India's installed power generation capacity was 199.9 GW at the end of March 2012. About 82 GW worth of generation capacity is set to be added during FY11-FY15. The Twelfth Five Year Plan (2012-2017) includes additional 30,000 MW of hydro-electric power generation. India currently has 4.4 gigawatt (GW) of net electricity generation capacity using nuclear fuels across 20 reactors and aims to increase it up to 20 GW by 2020. This can be achieved thanks to India's huge thorium reserves. Wind energy is the largest renewable energy source in India. The Jawaharlal Nehru National Solar Mission aims to generate 20,000 MW of solar power by 2022. India also has large reserves of coal. India's proven natural gas reserves measure about 1,074 billion cubic meters. The growth in power generation in India during April to December, 2012 was 4.55 per cent, as compared to about 9.33 per cent during April to December, 2011. From this point of view this article deals with a theoretical review of foreign direct investment opportunities in Indian renewable energy sector.

KEYWORDS Power sector includes power distribution and generation, Indian Renewable Energy Sector, Foreign Direct Investments

INTRODUCTION

The vibrant Indian economy, with the rising goals and aspirations of 1.2 billion people, is posing a big challenge to the energy sector. Although, meeting the rising demands for power appears to be very challenging, it can also be seen as a profitable opportunity for private and foreign companies in the power sector.

Both Indian and foreign investment companies in the energy sector are striving to make power available and accessible for various industry and agricultural needs. However, the energy crisis in India is still quite acute, and a sharp imbalance between demand and supply is evident. Power is the basic need in all sectors the demand for energy is escalating significantly. Although India is blessed with abundant natural energy sources, but do not have the technology or adequate infrastructure to utilize them properly India is left with no option but to depend on imports of oil from the Middle East. However the rising prices of coal and oil do not make them sustainable options for the future. Moreover their supplies are limited, and the effects are not environmentally friendly either. They cannot be easily recovered with existing technology. As a mater of fact, natural reservoirs take decades and decades to form.

In order to reduce the ever-looming energy crisis, India will have to adopt renewable energy resources like solar, hydro, gas, wind, and thermal power.

Primary Energy Consumption

- Coal – 52%
- Oil – 30%
- Gas – 10%
- Renewable Resources – 8%

Indigenous reservoirs like coal, oil, thermal energy and gas are simply unable to meet the energy requirements of the country. Now this has created a lot of concerns regarding energy security. The dependence on imports will only swell further as demand goes on increasing.

Import Dependence – Evaluation for the Year 2016-17

- Currently 75% oil is imported, which is estimated to rise to 80%.
- Today, import of gas is listed at 19%, marked to grow to 28%.
- Coal import is forecasted to rise from the current level of 90 million tons to more than 200 million tons.

With a growing economy energy requirements are also mounting. Fossil fuel reserves are generally depleting and the environment is getting adversely affected due to them. Hence, renewable energy sources are seen as the long-term solution for beating the energy crisis. In order to eliminate the vast power outages in future, India needs to switch from primary energy sources to renewable energy resources.

Vast Benefits of Adapting and Developing Renewable Energy

- Instrumental in reviving the Indian economy
- Create millions of job opportunities
- Allow India to attain energy independence
- Diminish the trade arrears
- Lower the carbon footprints
- Propel forward as a "Green Nation"
- Give a positive boost to industries and agriculture

India's Renewable Energy Contribution

It Specifics India is now developing solar energy for diverse industry sectors, and is also seen as major hub for PV (Photo Voltaic) industry and solar power plants. According to RNCOS survey report, PV installed capacity is expected to increase up to 49.5% annually from 2010 -14, and attain 1,500 MW in 2014.

At the moment India stands fifth in wind power utilization. Wind source accounts for 8% of installed power capacity.

1. China – 44,733 MW
2. United States – 40,180 MW

3. Germany – 27,216 MW
4. Spain – 20,676 MW
5. India – 15,700 MW

Biogas is predicted to produce 30,000 MW power, but it currently stands at only 3000 MW. This means that 90% of the industry still lies untapped. Small hydro power plants are economically viable projects and are keenly attracting private sector investors.

12th Five Year Plan proposal
During the 12th Five Year Plan term (2012-13 to 2016-17), the MNRE (Ministry of New & Renewable Energy) has been slated to add 29,800 MW power capacity from renewable energy sources.

- Wind – 15,000 MW
- Solar – 10,000 MW
- Small hydro – 2,100 MW
- Biomass – 2,700 MW

FDI in the Energy Sector
According to DIPP, the FDI inflows in renewable energy industry from April 2000 – February 2013 was set at $ 2,518.31 million. According to DIPP, from April 2000 – February 2013, the petroleum & natural gas industry attained cumulative FDI of $ 5,379.28 million.

Government Initiatives in the Renewable Energy Sector
Ministry of New & Renewable Energy (MNRE) has signed Memorandum of Understanding with Denmark Government for partnership to establish the C-WET (Wind Energy Technology Centre) at Kayathar. The 12th Five Year Plan's total fund requirement for power sector is Rs.1,372,580 crores. The main funding sources are commercial banks, financial institutions, overseas market, insurance companies, bond and equity markets, multilateral/bilateral credit. Capital expenditure for installing one megawatt wind power plan is Rs.6 crores. The 12th Five Year Plan targets installing wind power of 15000 MW capacity. For the developing and promoting renewable energy activities, a GBS (gross budgetary support) of Rs.1521 crore is provided to MNRE in 2013-14.

The launching of JNNSN (Jawaharlal Nehru National Solar Mission) allows capital investment on a large scale in the solar energy industry. The mission targets at 20,000 MW of grid solar power, and 2,000 MW off-grid power capacity. By 2022, there will be 20 million sq. metres of solar thermal collector regions, and 20 million solar illumination systems.

The FAC (Forest Advisory Committee) and MoEF (Ministry of Environment and Forest) gave permission for 2,500 MW worth of hydro projects across various states.

The MNRE has been supporting a wide range of R & D programs on advanced technologies like fuel cells, hydrogen energy, bio-fuels, battery operated vehicles, geo-thermal energy and tidal energy for over ten years. In Bihar, 150 MW solar power project is to be installed on the pond, where fish-farming is undertaken.

Updates on Investment Policy
For promoting solar power applications, the Indian Government is providing financial support through 30% subsidy or/ and 5% interest benefits on loans, for those companies in the renewable energy business. For attracting investments on capital-intensive energy projects like hydro-carbon blocks and power generation plants, the budget allows a grant of 15% on Rs.100 crore on the plant & machinery in the year 2013-14 and 2014-15. Ministry has announced GBI (Generation based Incentives) scheme for wind power projects (grid connected) to widen investors base. All efforts are being made to attract FDI from autonomous power producers internationally.

CONCLUSION
The Indian energy needs can be resolved by promoting hi-tech innovations in alliance with global partners. According to KPMG report, the third most favoured country to invest in renewable energy sector in the world is India, which is after China and the United States.

More and more foreign investors are attracted because of potent natural resources, large-scale international investment opportunities, and attractive Government incentives. Wind and solar sectors will certainly observe massive overseas investments and achievements in the coming years.

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