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GRT

EFFECT OF NEWLY ESTABLISHED POWER PLANT ON LOCAL PUBLIC : A REVIEW OF LITERATURE AND REFLECTION OF FUTURE OPPORTUNITIES

**Shilpa R. Bhagwat**

Asst. Professor , C. J. Patel College, Tirora.



Co - Author Details :

Murlidhar T. Lambat

Head, Department of Commerce , S. N. Mor Arts & Commerce College, Tumsar.



ABSTRACT

Power sector is a vital part of industry in India and it has been a subject of serious discussion and study for academic as well as professionals. As it contributes to the economic development of the region. Power generating industries as an economic phenomenon has been subject of special research interest by many researchers. By the end of the 1990s, results of research conducted in developed countries showed that power industries generate a high growth rate of gross domestic product or gross value added and employment As a result, there has been lot of formal discussion and scholarly research on the various effects of power sector across the globe. Though there are a large number of studies

available to review the power sector effect across various countries, it is useful to make references of some studies which are relevant to the study area. Therefore, a brief review of some of the relevant studies is under taken in this research paper.

KEYWORDS :Economic effect, employment, local property value, income.

INTRODUCTION

In India, development of the power sector has received special emphasis in the planned economic development of the country over the past four decades. The great relevance of power sector

is further highlighted by the fact that the demand for electricity has been increasing more rapidly in India than elsewhere in the world, although India's per capita power consumption is low. Thermal power plants are the largest suppliers of electricity in India, followed by hydro, nuclear, gas, and diesel-based generating plants. Thermal power plants hold the highest share of installed power generation capacity in the country. The share of thermal plants in total power generated in the country is even higher than their share of generation capacity. The economic benefits of new thermal power units can be measured through increased employment, value addition in asset, local investment and business and wages or salary accrued during both the construction and operational phases of new coal units.

A study was done by Mullin & Zenia (1997) on closing of Yankee Atomic Electric Company's nuclear power plant, it reveals that the decisions to close nuclear power plant are highly unlikely to consider the local impacts.. Closing of plant brought joblessness, low rate of taxes and weak economic base. (Joskow, 1998) stated potential impact of structural and regulatory policies of electricity sector on economic development and distribution of income.

Allen Blackman & Xun Wu (1998) analysed foreign direct investment in china's power sector which enhance the productivity of Chinese power plants. The increase in power generation fetch the great employment in the said region. (Muhammad Iqbal Khan & Ather Maqsood Ahmed, 1999) found that electricity generation in Pakistan would boost the agriculture and industrial production. (Daniel Bouille, Hilda Dubrovsky & Crescencia Maurer, 2001) analysed how public benefits were addressed in the reforms of Argentina's electric power sector during the 1990s. Public benefits refers to social and environmental concerns that have important implications for social welfare including increasing rural access to electricity, tariffs paid by poor households, employment in the electricity sector, the efficient use of energy, development of renewable energy, and global climate change. (Bacon, 2001) found in his study that the poor performance of the state run electricity sector in terms of high costs, inadequate electricity services for population and insufficient supply makes other dependent industries weak which indirectly create impact on economy and results unemployment in state. (Phoenix Economic Development Group, 2002) a group of experts was constituted to conduct a study to examine the economic impact of wind power in Kittitas County. The key findings of the study was wind power projects will not negatively impact on local property value, the construction of plant will have significant economic benefits for local residents, plant operation will provide additional annual economic benefits by over \$4 million annually, government also will get additional tax revenues which result the strong economic growth of the said area. (Mariita, 2002) found that Olkari project had an impact on community, to some extent improved the living standards of the Maasai. (K. R. Shanmugam & Praveen Kulshreshtha, 2002) stated that electricity infrastructure is vital to country's economic development and growth.

As per R. K. Schwer and M. Riddel (2004) there will be direct and indirect employment impacts from constructing and maintaining renewable energy generation facilities. New jobs can be created in the retail market, service sector and other sectors that support consumption activities of local residents. The study of (Nuclear Energy Institute, 2004) stated that power plant provides job to the local community directly and indirectly. Additional benefits to the area are higher tax revenue, increase in labour income and charitable contribution by power plant to the local community. (Edgard Gnansounou, Denis Bedniaguine & Jun Dong, 2005) stated that in electricity sector clean development mechanism offers attractive business opportunities for investment in greenhouse gases alleviation projects which brings good economic benefits for industries and developing countries. As per (Natàlia Caldés, Manuel Varela & Rosa Saez, 2006) the total direct employment generated by power plant would be 220 while the indirect employment generated would reach 47,000 equivalent full-time jobs of one

year of duration. The study conducted several types of economic effect like direct effect, indirect effect and induced effect. (L. Stoddard, J. Abiecunas & R. O'Connell, 2006) Analysed concentrating solar power (CSP) plant and its potential economic return, energy supply impact and environmental benefits for the California. A group of economist (Urban-Econ Development Economists, 2006) studied the potential impacts of the construction and operation of the proposed coal fired power station on the net welfare of the local communities and economic development in the area.

Alex L. Rosaen & Anderson Economic Group, LLC (2008) found that the proposed power plant will attract new firms to the area, creating economic impact as the indirect employment created as workers. (S. Reategui & S. Tegen, 2008) stated that The plant creates direct and indirect impact on employment their corresponding payrolls salaries and spending activities. The study shows significant economic impacts on employment, property tax, landowner revenue, and local economic activities during the construction and operational periods. (Wise Energy for Virginia Coalition, 2009) summarised that construction period of Dominion Virginia Power's Coal-Fired Power Plant generated 5,700 job costing \$419 million in total labour income and \$720 million in gross state product. (N. Calde's, M. Varela, M. Santamari'a & R. Sa'ez, 2009) analysed the total indirect effect generated during the construction and operational phase would reach 445Mh, of which 285Mh are indirect national demands and 160Mh are indirect demands generated nearby area of the Spanish territory.

A group of researcher Economic & Policy Resources, Inc. and Kavet, Rockler & Associates, LLC (2010) found that Vermont Yankee power plants shutdown showed the negative impact on employment about loss of 1,060 jobs. Kinyari (2010) interpreted positive and negative socio economic impacts of proposed MSD power plant. A group of researchers, Stanley McMillen, Nandika Prakash, Alissa DeJonge & Dale Shannon (2011) determined the economic impacts of construction and operation of new and replacement nuclear power plant on population. (The Conference Board of Canada, 2012) Analysed that electricity sector contributes to Canadian economic activity and employment. (The World Economic Forum, 2012) Stated that the energy sector contributes biggest share in GDP of most countries. The energy sector contributes economic growth by two ways, it creates job and value by extracting, transforming and distributing energy services. Energy sector hired high skilled employees with high pay, as a result high salaried employees contribute more spending per capita to the economy than the average workers. A group of researcher of India Brand Equity Foundation (2013) concluded that power is considered as base industry for other various sector such as manufacturing, agriculture, commercial enterprises and railways etc. (Modinat O. Olusoji & Olusegun O. Oloba, 2014) stated that private power sector enhance the economic growth by providing direct and indirect employment and earning. (Shunichi Hienuki, Yuki Kudoh & Hiroki Hondo, 2015) found that employment created in the operation and maintenance stage is 66% of the total, indicating that power generation can generate long term employment opportunities in service sectors.

CONCLUSION

The above review indicates, power generation sector created favourable environment for economic development. They have provided a stable base for growth of economic condition of local public. Some studies have found out the commendable role played by power plant in generation of direct and indirect employment opportunities at the time of construction and operational period. The power plant would provide direct and indirect business opportunities to the local population. Individual, small, medium and large sized businesses are expected to benefit from the contracts offered by the power plant. Individual and small business are expected to benefit from direct and indirect business like selling goods and services to workers, letting out house, supplying materials to the power

plant or providing transport services to both goods and people. Establishment of power plant fetched value addition in income and land. It also help to improve the standard of living of local resident. The literature shows the impact of power sector on local community near plant site is more positive than other region. This recommends up the need for a special study to analyse the impact of power plant on economic condition of local public.

REFERENCES

- 1.Mullin, J. R., & Zenia, K. (1997). The closing of the yankee rowe nuclear power plant: the impact on a new england community. Michigan: Michigan state university.
- 2.Joskow, P. L. (1998). Electricity Sectros in transition. *the energy journal*, 19(2), 25-52.
- 3.Allen Blackman & Xun Wu. (1998). Foreign Direct Investment in China's Power Sector: Trends, Benefits and Barriers. Washington, DC: Resources for the Future.
- 4.Muhammad Iqbal Khan & Ather Maqsood Ahmed. (1999). Power Sector Development in Pakistan and Economic Policy Issues. *The Pakistan Development Review*, 37(4), 795-809.
- 5.Daniel Bouille, Hilda Dubrovsky & Crescencia Maurer. (2001). Reform of the Electric Power Sector In Developing Countries: Case Study of Argentina. Argentina: Institute of Energy Economics Bariloche Foundation.
- 6.Bacon, R. W. (2001). Global Electric Power Reform, Privatisation and Liberalization of the Electric power Industry in Developing Countries. *Annual of Energy and the Environment*, 26, 331-359.
- 7.Phoenix Economic Development Group . (2002). Economic Impacts of Wind Power in Kittitas County. Portland: ECONorthwest.
- 8.Mariita, N. O. (2002). The Impact of Large-scale Renewable Energy Development on the Poor: Environmental and Socio-Economic Impact of a Geothermal Power Plant on a Poor Rural Community in Kenya. *Energy Policy*, 1119-1128.
- 9.K. R. Shanmugam & Praveen Kulshreshtha. (2002). Efficiency of Thermal Power Plants in India. *Vikalpa*, 4, 57-68.
- 10.R. K. Schwer and M. Riddel. (2004). The Potential Economic Impact of Constructing and Operating Solar Power Generation Facilities in Nevada. Colorado: National Renewable Energy Laboratory.
- 11.Nuclear Energy Institute. (2004). Economic Benefits of Palo Verde Nuclear Generation Station. Western Maricopa: Nuclear Energy Institute.
- 12.Edgard Gnansounou, Denis Bedniaguine & Jun Dong. (2005). A Modelling Assessment of the Impact of Clean Development Mechanism on Electricity Generation Systems: Case of Shandong Province, China. 25th USAEE / IAEE North American Conference (pp. 60-70). Denver, USA: USAEE / IAEE North American Conference.
- 13.Natàlia Caldés, Manuel Varela & Rosa Saez. (2006). Economic Impact of Solar Thermal Electricity Deployment in Spain. *SolarPACES*, 40-54.
- 14.L. Stoddard, J. Abiecunas & R. O'Connell. (2006). Economic, Energy, and Environmental Benefits of Concentrating Solar Power in California. Colorado: National Renewable Energy Laboratory.
- 15.Urban-Econ Development Economists. (2006). Socio-Economic Impact Assessment of the Proposed Eskom Power Station in the Witbank Geographical Area. South Africa: Urban-Econ Development Economists.
- 16.Alex L. Rosaen & Anderson Economic Group, LLC. (2008). The Economic and Fiscal Impact of a Proposed Powerplant in Rogers City. Michigan: Anderson Economic Group, LLC.
- 17.S. Reategui & S. Tegen. (2008). Economic Development Impacts of Colorado's First 1000 Megawatts of Wind Energy. National Renewable Energy Laboratory (pp. 1-25). Battelle: National Renewable

Energy Laboratory.

18. Wise Energy for Virginia Coalition. (2009). Assessing the Economic Impact of Dominion Virginia Power's Coal-Fired Power Plant in Wise County, Virginia. Cambridge: Abt Associates Inc.
19. N. Calde´s, M. Varela, M. Santamari´a & R. Sa´ez. (2009). Economic Impact of Solar Thermal Electricity Deployment in Spain. *Energy Policy*, 20-29.
20. Economic & Policy Resources, Inc. and Kavet, Rockler & Associates, LLC. (2010). Consensus Economic and Fiscal Impact Analyses Associated with the Future of the Vermont Yankee Power Plant. Vermont: Economic & Policy Resources, Inc.
21. Kinyari, P. (2010). Socio-economic Impact Assessment. Kenya: Gulf Power Ltd.
22. Stanley McMillen, Nandika Prakash, Alissa DeJonge & Dale Shannon. (2011). The Economic Impact of Nuclear Power Generation in Connecticut. Connecticut: connecticut academy of science and engineering.
23. The Conference Board of Canada. (2012). Shedding Light on the Economic Impact of Investing in Electricity Infrastructure. Canada: The Conference Board of Canada.
24. The World Economic Forum. (2012). Energy for Economic Growth Energy Vision Update 2012. USA: The World Economic Forum.
25. India Brand Equity Foundation. (2013). The Indian Power Sector : Investment, Growth and Prospects. India: India Brand Equity Foundation.
26. Modinat O. Olusoji & Olusegun O. Oloba. (2014). Impact of National Economic Empowerment and Development Strategy (NEEDS) on the Private Sector: A Case Study of Power Sector. *Journal of Public Administration and Governance*, Vol. 4(3), 20-35.
27. Shunichi Hienuki, Yuki Kudoh & Hiroki Hondo. (2015). Life cycle employment effect of geothermal power generation using an extended input-output model: The Case of Japan. *Journal of Cleaner Production*, 10-48.

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