

Trends and Developments of Foreign Direct Investment in Power Sector in India

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ABSTRACT

Power is one among the important factor of infrastructure, essential for the economic development and interests of the nation. The survival and growth of adequate infrastructure is important element of power generation for perpetual development of the Indian economy. Since liberalization period Foreign Direct Investment has been allowed 100 per cent under automatic route with incentives in India. Inspite of many concessions and incentives have been accommodated to the worldwide famous private companies, in India it has been exited due to various operational and political reasons. Thus, small sum of FDI only initiated in India. Later, due to the Government policy, it encouraged in private sector from Foreign Direct Investment the needs and wants of power sector is growing rapidly. Hence, the study on importance of the Power sector is essential part in India at the present scenario. This paper identifies the essentials of the power sector and how much it has been benefited from foreign countries. In order to find out the results of the FDI in various aspects of the power sector, Growth rate, Correlation between Inflows of FDI and Renewable Energy and Non-Renewable Energy sources and Generation of Power and tabled have been used to finalise the results of the study.

KEY WORDS: **FDI:** Foreign Direct Investment, **CAE:** Central Authority of Energy

INTRODUCTION

The role of power generation in India is an extensive project. The Sources of power has been segregated in two ways, Conventional sources such as coal, lignite, oil, natural gas, nuclear power and hydro power, non-conventional sources such as solar, wind and agricultural and domestic wastes. In India, the demand of Electricity has augmented in future years. According to the increased demand for electricity that the generating capacity also must be increased rapidly. In year 2018, India was the fourth rank in power generation in the Asia pacific region and also in the wind power. In the same year India was fifth rank in Solar power and fifth rank in the renewable power generation.

NEED of FDI at international level

Developed countries and developing countries economies and are in increasingly seeing FDI as a source of economic development, employment,, income growth, and modernization. Countries have broadened their FDI mechanism and tagging other policies to attract investment. They have inscribed the issue of how best to hunt domestic policies to maximise the benefits of foreign existence in the domestic economy. The overall benefits of FDI for developing country economies are well chronicled. Given the appropriate host-country policies and a basic level of development, a prevalence of studies shows that FDI activate technology deluge , helps in increase of human capital formation, handout to international trade integration, succor to create more competitive business environment and supplement enterprise development. All of these subscribe to increased economic growth, which is the most dominant tool for weakening poverty in developing countries. FDI may also aid to improve environmental and social conditions in the host country.

OBJECTIVES OF THE STUDY

1. To analyse the inflows of FDI in Power Sector in India
2. To explore the growth of FDI in various energy sector in India.
3. To understand the demand and supply position of energy sector in India.
4. To Find the initiatives taken by Government to increase FDI in power sector.
5. To give the suggestions and recommendations to overcome the drawbacks of Invasion of FDI power sector in India

RESEARCH METHODOLOGY

The researcher has adopted descriptive study in this research. This researcher used sources of secondary data. Data was collected through various websites, and Hand Book of RBI bulletins.

STATISTICAL TOOLS USED FOR ANALYSIS

In order to analyse all the Trends and Developments of FDI in India Statistical tools like Growth rate, percentages have been utilised for the study in an effective manner.

PERIOD OF STUDY

The period of study covers from 2015 -2020 and also to be updated according to the policy changes in Indian Economy.

Review of literature

The 1990s saw an unprecedented increase in private foreign investment in infrastructure projects in developing countries. For the private sector, infrastructure investment is associated with a sizeable investor risk linked to the long-term sunk cost characteristics of infrastructure projects. For the government, the involvement of the private sector in “natural monopolies” raises new challenges in designing regulatory structures that can control anti-competitive or monopolistic behavior, while at the same time maintaining the attractiveness of the domestic economy to potential foreign investors in the infrastructure industries. It is therefore logical that there is long established and extensive literature on the determinants of FDI flows to developing countries (Dunning, 1993; Moran, 1999).

Trends and Developments of Foreign Direct Investment in Power Sector in India

The focus of many of the early contributions to this literature was on the determinants of FDI inflows and they showed that TNCs were attracted to invest in locations that allow the enterprise to exploit its ownership specific advantages. More recent contributions have examined the influence of institutional factors in explaining cross-country differences in foreign investment flows. Building on the insights of the new institutional economics, it is increasingly recognized that differences across countries in economic conditions provide only a partial explanation of the location choices of TNCs and that the quality of a country's institutional framework can have a significant impact on the perceived investment environment.⁶² The logical first step in every research project is to investigate existing research regarding the topic under study. The first section discusses the "Meaning of FDI". Next four sections discuss about "Theories of FDI: Determinants and Variables Selection", "FDI in Power Sector: Issues & Opportunities", "FDI and its Impact", and "Private Participation and Power Sector", followed by "Major Contribution of the existing literature and the Research Gaps".

NATURE OF FOREIGN DIRECT INVESTMENT IN INDIA

Foreign Direct investment has become structural part of economic developmental approach for almost all the nations globally. India is progressing and aiming FDI as one of the target for elevating domestic capital, increase the employment and improve the productivity. FDI helps in inflow of new technologies, innovative ideas, revamping infrastructure and thus forces competitive environment. Indian companies can receive FDI under two directions. One is Automatically FDI can enter without any prior approval from RBI or Government. The second one is with prior approval for Foreign Domestic Board and other approving authorities incharge for it.

FDI In POWER SECTOR OF INDIA

Indian Government contemplate power as important sector and opened gate of FDI was in 1991. Hundred percent ownership and automatic investment approval and other incentive schemes were given to foreign power companies which were ready to invest in India. As a response Enro, Electricite de Franc, PowerGen, Cogentric and National Power signed their projects in India. Hurdles from commercial operational and political side made only AES corp and China Light and Power to endorse their investment in India. India's power sector has experienced very little foreign direct investment in power generation, transmission and distribution. We can discuss inflow of Foreign Direct Investment of power sector.

TABLE 1.1 INFLOWS OF FOREIGN DIRECT INVESTMENT IN POWER SECTOR

| YEAR | INFLOWS OF FDI (AMOUNT IN \$MILLIONS) | GROWTH RATE |
|--------------|---------------------------------------|-------------|
| 2015-2016 | 868.80 | -- |
| 2016-2017 | 1,112.98 | 28 % |
| 2017-2018 | 1,621.60 | 46% |
| 2018-2019 | 1,105.64 | -32% |
| 2019-2020 | 337.19 | -70% |
| TOTAL | 5,045.21 | |

SOURCE: Ministry of Commerce and Industry

The Table 1.1 shows those inflows of Foreign Direct Investment in Power sector, in the year 2016-2017 and 2017-2018 shows in a considerable inflows in this sector. But, in the next financial year it has been reduced in a negative trend because self-generating power increased in India as well as covid-19 are the reasons influenced in India.

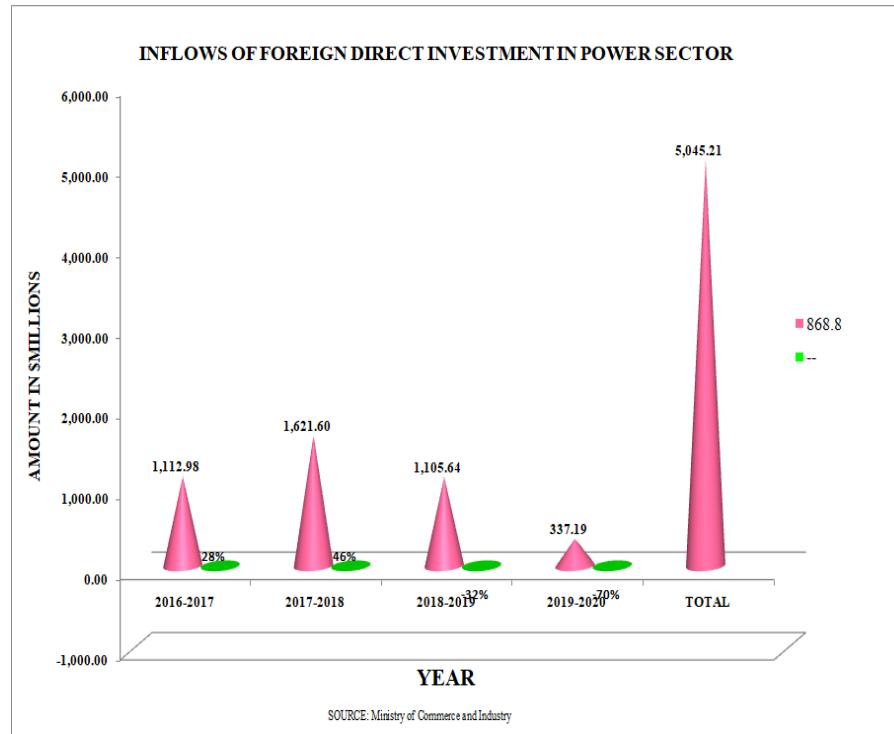


TABLE.1.2 INFLOWS OF FOREIGN DIRECT INVESTMENT IN RENEWABLE ENERGY SECTOR

| YEAR | INFLOWS OF FDI (AMOUNT IN \$MILLION) | GROWTH RATE |
|-----------|--------------------------------------|-------------|
| 2015-2016 | 776.51 | -- |
| 2016-2017 | 783.57 | 1% |
| 2017-2018 | 1,200.00 | 53% |
| 2018-2019 | 1,440.00 | 20% |
| 2019-2020 | 8,280.00 | 47.5% |
| TOTAL | 12,480.08 | |

SOURCE: MINISTRY OF ENERGY

The table 1.2 shows that the inflows of FDI in Renewable power sector in India, it has been increased in a tremendous position. Due to “Make in India” maximizing low cost renewable installation in India is the main reason that the FDI shows in a ascending trend in the Renewable Energy Sector. The correlation between inflows of FDI in power sector and Renewable Energy sector is in a negative correlation i.e.-0.882.

Trends and Developments of Foreign Direct Investment in Power Sector in India

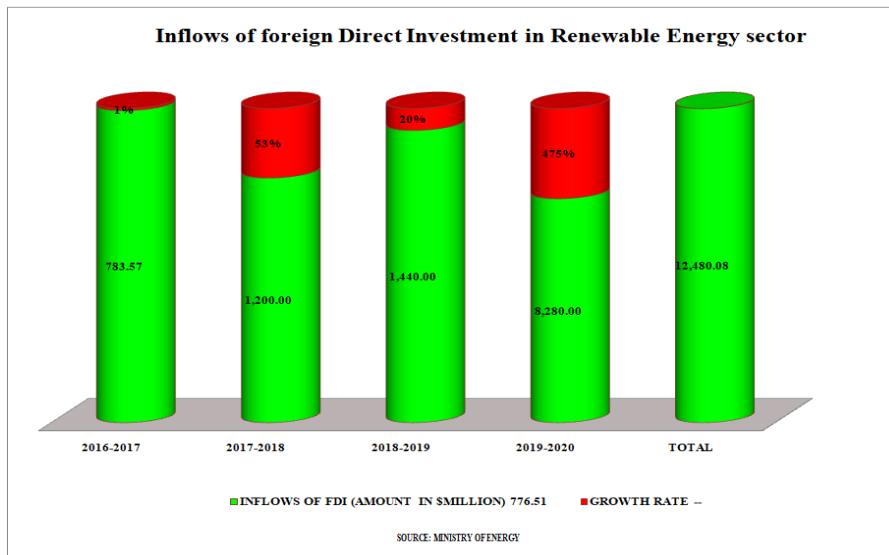


TABLE 1.3 INFLOWS OF FOREIGN DIRECT INVESTMENT IN NON-CONVENTIONAL ENERGY

| YEAR | INFLOWS OF FDI (AMOUNT IN \$MILLION) | GROWTH RATE |
|--------------|---|-------------|
| 2015-2016 | 776.51 | -- |
| 2016-2017 | 783.57 | 1% |
| 2017-2018 | 1,204.46 | 54% |
| 2018-2019 | 1,446.16 | 20% |
| 2019-2020 | 1,268.64 | 12% |
| TOTAL | 5,479.34 | |

SOURCE: MINISTRY OF COMMERCE AND INDUSTRY

The table 1.3 shows that the position of FDI in Non-Conventional Energy in India, it includes Wind, Solar and Biomass, due to the involvement of the Centre and State Governments increased considerably and it has been shown in a negative trend because of government has spent more investment than abroad. The correlation between inflows of FDI in power sector and Renewable Energy sector is in a negative correlation i.e.-0.115.

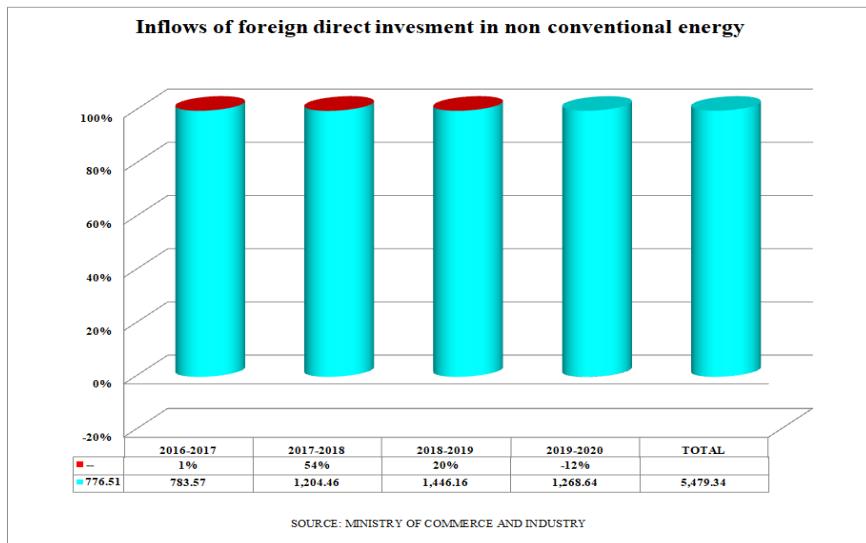


TABLE 10.4. INFLOWS OF FOREIGN DIRECT INVESTMENT IN PETROLEUM & NATURAL GAS

| YEAR | INFLOWS OF FDI(AMOUNT IN \$) | GROWTH RATE |
|-----------|------------------------------|-------------|
| 2015-2016 | 103.02 | -- |
| 2016-2017 | 180.40 | 75% |
| 2017-2018 | 24.18 | -87% |
| 2018-2019 | 138.43 | 472% |
| 2019-2020 | 59.15 | -57% |

SOURCE: MINISTRY OF COMMERCE AND INDUSTRY

The table 10.5 shows that inflows of FDI in Petroleum and Gas, in the year 2018-2019 it shows 472 per cent. Because of Government policy like, increasing the domestic consumption and modernization of Gas supply are the factors influenced to increase the trend in FDI. But, in the next year showed in a negative (2019-2020), because of government has concentrated in Non-conventional Energy instead of conventional energy system.

Trends and Developments of Foreign Direct Investment in Power Sector in India

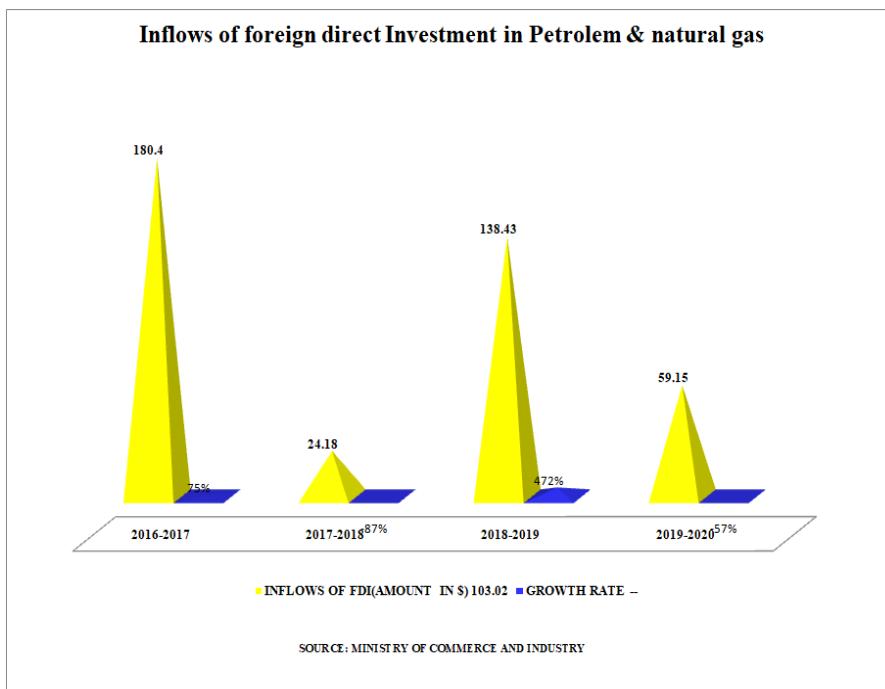


TABLE 1.5 TOTAL GENERATION OF POWER AND ITS GROWTH

| YEAR | GENERATION IN (BILLION UNITS) | GROWTH RATE |
|--------------|-------------------------------|-------------|
| 2015-16 | 1,173.603 | -- |
| 2016-17 | 1,241.689 | 6% |
| 2017-18 | 1,308.146 | 5% |
| 2018-19 | 1,376.095 | 5% |
| 2019-20 | 1,389.102 | 1% |
| TOTAL | 6,488 .635 | |

SOURCES: CENTRAL ELECTRICITY AUTHORITY OF INDIA

The Table 10.6 displayed about the Generation of Power and its Growth during the study period. Due to implementing the Indo-German Energy Programme on behalf of the German Federal Ministry for Economic Co-operation and Development Bank with the help of Indian Partners has improved in the generation of Energy in the grid. The correlation between inflows of FDI and Power Generation is in a Negative correlation i.e. -0.389.

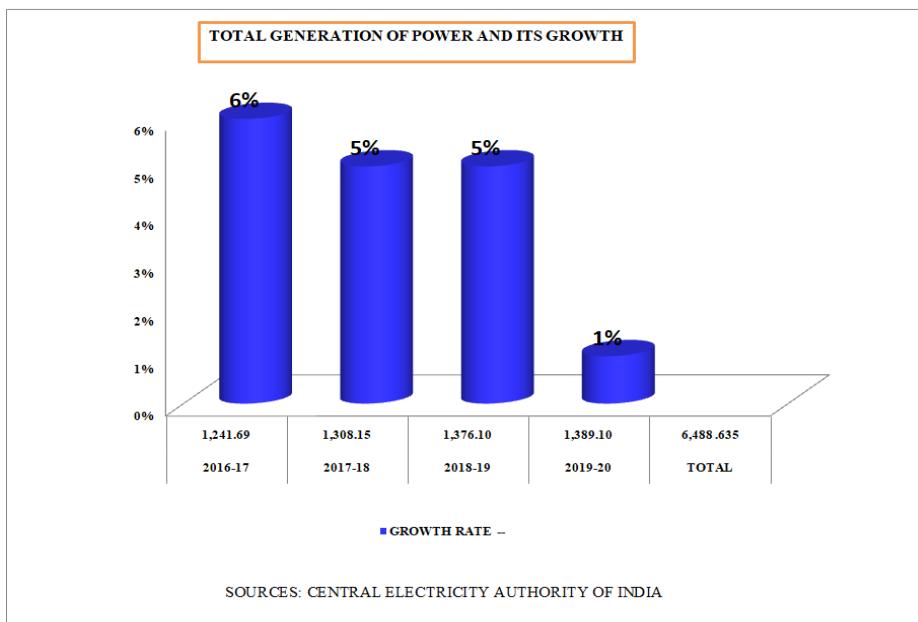


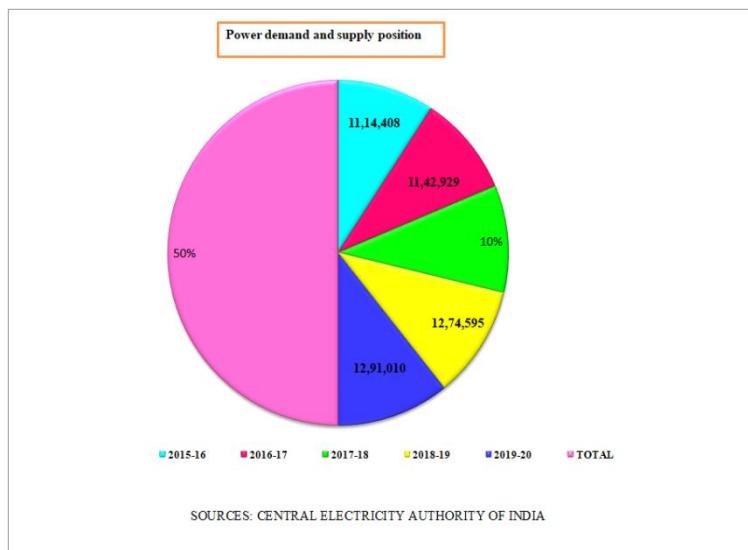
TABLE 10.7 POWER DEMAND AND SUPPLY POSITION

| YEAR | REQUIREMENTS (MILLION UNITS) | AVAILABILITY (MILLION UNITS) | SURPLUS/DEFICIT (MILLION UNITS) |
|--------------|------------------------------------|---------------------------------|------------------------------------|
| 2015-16 | 11,14,408 | 10,90,850 | -23,558 |
| 2016-17 | 11,42,929 | 11,35,334 | -7,595 |
| 2017-18 | 12,13,326 | 12,04,697 | -8,629 |
| 2018-19 | 12,74,595 | 12,67,526 | -7,070 |
| 2019-20 | 12,91,010 | 12,84,444 | -6,566 |
| TOTAL | 60,36,268 | 59,82,851 | |

SOURCES: CENTRAL ELECTRICITY AUTHORITY OF INDIA

The Table 1.6 shows that the position of Power availability and its requirements during the study period. Because of increasing the utilization of energy not only by way of increasing the population but also productions in industrial purposes that the trends showed in a negative trends.

Trends and Developments of Foreign Direct Investment in Power Sector in India



FINDINGS:

1. The main motive of the Energy system is to reduce the Pollution Environment in the country.
2. Due to Make-in-India policy that the outlay in this sector has been increased effectively and efficiently.
3. Increased trend level in this sector has focused to reduce the cost of production in the manufacturing sector.
4. Due to the Invasion of New Technology from Foreign countries, new trend shows in rural areas also.
5. Liberalized policy of the Government makes more employment opportunities increased and will be caused to touch the highest peak in economic development of the country.

SUGGESTIONS:

1. More Overseas investment is needed to strengthen the Energy Sector in India.
2. To reduce the trend of private investment, public sector concentration output must be Increased.
3. The tariff policy must be modified particularly in the industrial sector
4. The special concentration must be given in the Non-conventional energy with increasing the government subsidy.
5. The sanctity of Contracts must be concentrated like China, unnecessary gap must be avoided between the cost of Production in Non-conventional energy and supply.

CONCLUSION:

India is one of the developing country as well as important destination of Foreign Direct Investment in the world. So, the requirements of the energy has been increased around 177 GW during the year 2018-19 and it has been further increased in the next few years. Therefore, according to the growth of the population that the production will be increased efficiently with low cost in future. Meanwhile, employment opportunities and Technology will be grown effectively. To attract the foreign investments, Government policy must be relaxed and also be strengthened. From unnecessary surcharges to the consumer industries and avoidance of free power to the Landlords for

agricultural purposes will be reconstituted. Even though this miny research is not enough, these suggestions are more helpful to development of the Economy.

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