A PRÉCIS

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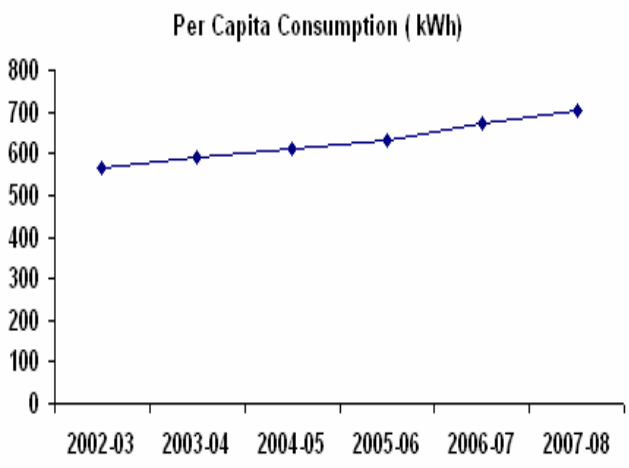
Power Sector Overview(INDIA)

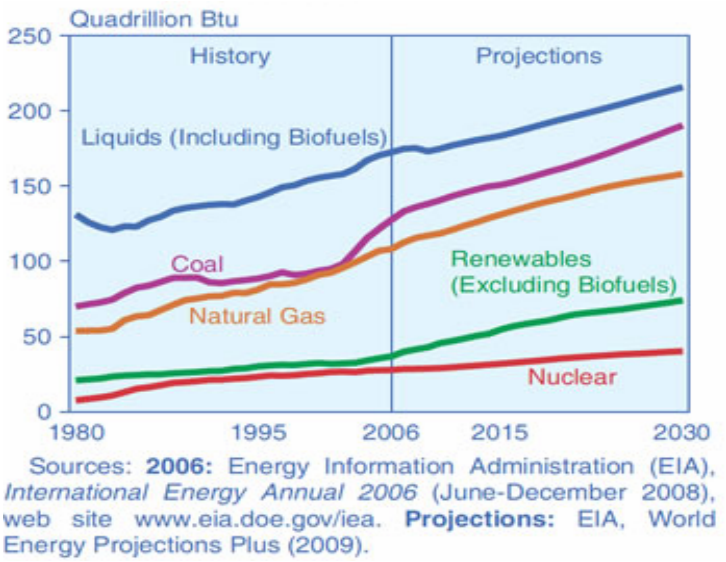
- India has the fifth largest electricity generation capacity in the world.
- Transmission & Distribution network of 6.6 million circuit km - the third largest in the world.
- CAGR of 5% over the last 5 years
- Coal fired plants constitute 54% of the installed generation capacity, followed by 25% from hydel power, 10% gas based, 3% from nuclear energy and 8% from renewable sources.
- Per capita consumption of electrical power in India is still far behind that of developed countries, India's per capita is at 347 kWh, while that of developed countries is in the region of more than 10,000 kWh.
- Total investment opportunity in the sector by the end of 2012 is usd$150 billion



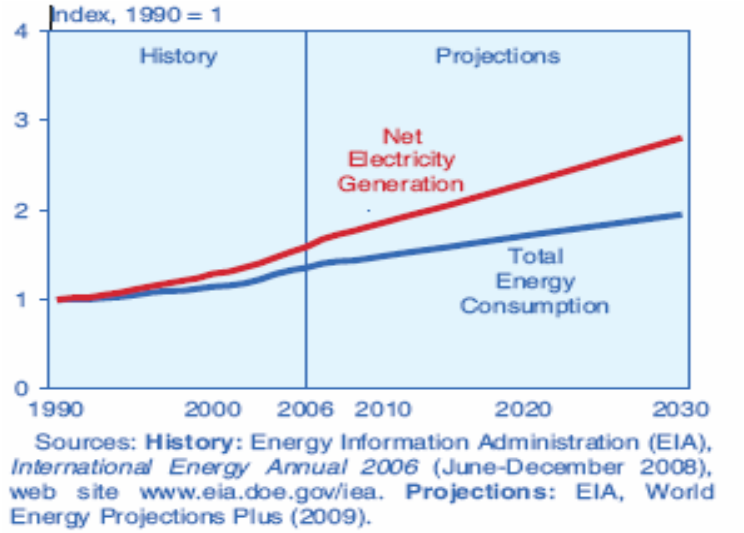
Per capita Power Consumption(India)

World Scenario

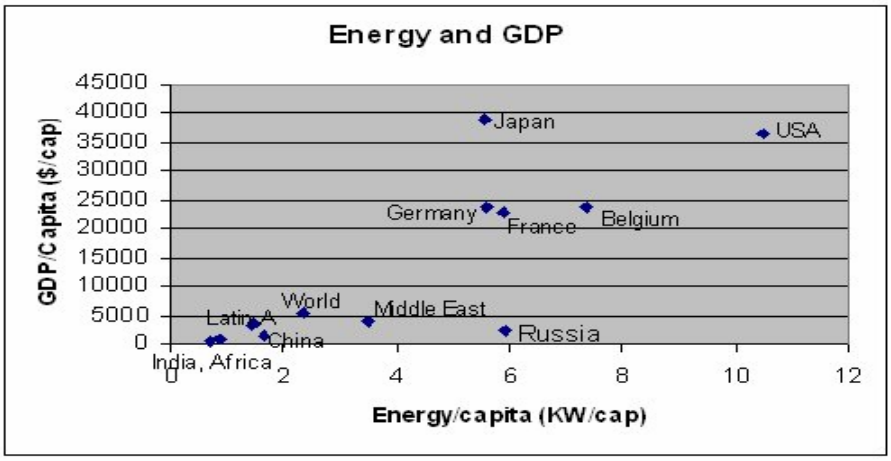
Historical Vs Future Potential



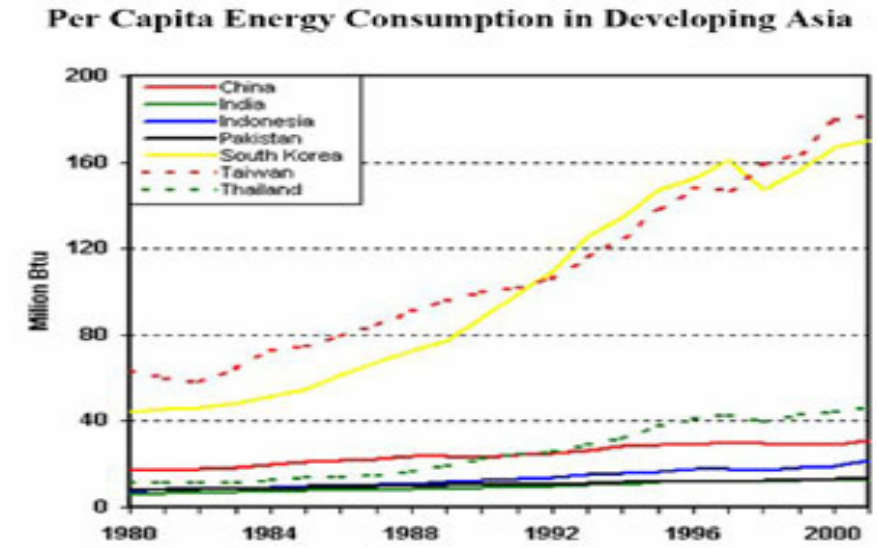
Fuel Consumption pattern



Energy consumption projected to rise 44% from 2006 to 2030



There exists a huge range in power levels (in KW/capita) between the lowest consumer (India) and the highest (USA). In the USA, each citizen needs an average power level of more than 10KW every second to keep the society going (this includes everything: transportation, work, food, housing, leisure, etc.). But when we look to productivity levels (expressed as GDP/capita), we see that the productivity of the USA (ca. $36,000/capita) is more than 70 times than that of India (ca $500 /capita). Based on that, the USA is better performer in terms of energy efficiency (10KW/capita vs. about 1KW/capita for India). There seems to be a rough overall correlation between GDP/capita and energy/capita. This is understandable, since higher productivity per individual will cause a higher energy need for each.



Electricity is the common denominator for all technologically advanced societies. Correlation between per capita income and per capita power consumption is very strong. If the power industry is below-par, overall growth is hobbled. Power is an essential requirement for all facets of our life and has been recognized as a basic human need. It is the critical infrastructure on which the socio-economic development of the country based depends. The growth of the economy and its global competitiveness hinges on the availability of reliable and quality power at competitive rates.

Executive Summary:

Rapid economic growth has increased the burden on India's Infrastructure, one of the country's weak spots. An Infrastructure deficit is widely considered to be one of the factors that could severely hamper India's economy growth. In the past few years, policy makers have recognized this and have made concerted efforts to accelerate infrastructure development. Much progress is evident in sectors like Telecommunications, road, transport. But the power sector continues to lag behind despite the introduction of progressive measures. Shortages, tariffs and dependency on imported fuels are on the rise, while the poor health of distribution continues to inhibit the inflow of investments. Unless the changes, India's economic growth will be at risk India's power demand is likely to cross 300 GW, in the next 10 years according to an estimate. Meeting this demand requires a fivefold to tenfold increase in the pace of capacity addition .The profile of planned capacities will also need to be suitably modified to fulfill peak demand , keep emissions on check , reduce dependence on imported fuels and provide affordable power.

Electricity policy of India aims to make electricity available for all households in India in next five years and to increase the per capita availability of electricity to plus1000 units by 2012.

Introduction-

The power sector has registered significant progress since the process of planned development of the economy began in 1950. Hydro -power and coal based thermal power have been the main sources of generating electricity. Nuclear power development is at slower pace, which was introduced, in late sixties. In spite of the overall development that has taken place, the power supply industry has been under constant pressure to bridge the gap between supply and demand. The power sector has been receiving top priority ever since the planned development began in 1950.The sector has been getting 18-20% of the total public sector outlay in initial plan periods. Remarkable growth and progress have led to extensive use of electricity in all the sectors of the economy in the successive five year plans. India is the 5th largest power producer in the world with the total power capacity of more than 145,000MW. Despite growth in power generation capacity over various 5-Year Plans, India is facing huge power deficit with peak power deficit of about 16%.

Power is a critical component of any economy's infrastructure without which its development and growth is a big obstacle. An economy's growth, development and ability to handle global com-petition, all depends on the availability, reliability and quality of the power sector. The demand for power is growing exponentially so the scope of growth of this sector is immense. This sector is dominated primarily by Public Sector Undertakings (PSU). The State and Central Government account for 58% and 32% of the generation capacity respectively while the private sector accounts for a mere 10%. A major part of the transmission and distribution factors are handled by the state utilities. The private sector is gradually making its presence felt in the power sector in distribution and is planning to venture into transmission. Power sector is mainly funded through budgetary support and external borrowings were opened to private sector in 1991.