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- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio," Ohio State University.

Contributions to books

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

Journal and other articles

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

Conference papers

- Chandel K.S. (2009): "Ethics in Commerce Education." Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

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- Kumar S. (2006): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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- Kelkar V. (2009): Towards a New Natural Gas Policy, Economic and Political Weekly, Viewed on February 17, 2011 http://epw.in/epw/user/viewabstract.jsp

FINANCING STRATEGIES IN POWER PROJECTS FINANCING FOR THE DEVELOPMENT OF ECONOMY - INVESTMENT OPPORTUNITIES AND CHALLENGES – A STUDY OF INDO-CANADIAN EXPERIENCES

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ABSTRACT

The Indian economy is booming, with rate of Gross Domestic Product (GDP) growth exceeding 8% every year since 2003/04. Long-run economic growth is influenced by the availability of infrastructure services including electricity. In order to support a sustaining high GDP growth rate of around 9 percent per annum, demand for power can be expected to rise at the rate around 10 percent annually for the next decade. Power sector contribution to Indian GDP is 2.4 percent, it is very significant. Keeping in view the impact of investment for the development of GDP, the study has been undertaken to analyze the role of investment in power sector for the development of economy in India and Canada. The study mainly focused on the inflow of investment in power sector, mode of financing and the influence of various risk factors on inflow of investment. The compared the level of investment by public and private sectors in both India and Canada and also analyze the reasons for the short fall of invest .finally the study draws some conclusions from the experiences of both countries and made suitable suggestions for the development of investment and various measures to be taken for attracting private sector for its investment.

KEYWORDS
Investment, Project financing, Risk, Investment strategies, India, Canada.

INTRODUCTION

Infrastructure is also a key component of the investment environment, in general (*World Bank, 2005a*). The growth of the country mainly depends on the development of the infrastructure of that country. In India there is a significant contribution of infrastructure sector to the development of economy. The Indian economy is booming, with rates of Gross Domestic Product (GDP) growth exceeding 8% every year since 2003/04. Long-run economic growth is influenced by the availability of infrastructure services including electricity. India's GDP is projected to grow annually at an average rate of 9 per cent over the Eleventh Plan period. Based on investment levels in infrastructure in several cross country analyses of fast growing Asian economies, gross capital formation (GCF) in infrastructure may need to be accelerated to around 11 per cent by the terminal year of the Eleventh Plan to achieve this targeted annual growth in GDP of 9 per cent. Regarding to the investment of power sector, chronic power shortages and widening power supply-demand gap is creating tremendous opportunity for private investment encouraged by government policies (*Canning & Pedroni, 2004; Calderon & Servén, 2004*). Financing power projects is critical issue. The demand for investment in the electricity sector in the world stands at an astonishing USD9.8 trillion between 2000 and 2030, including about 40% of this for power generation alone. The degree of financing to this sector is influenced by the method of project financing and various risks involved in the sector. Whereas Private investment plays key role for the development of the power projects. The flow of private capital from developed to developing economies is influenced by higher expected returns and the growth potential of developing markets. The investors can choose from a basket of opportunities in various countries and across a number of sectors. The factors influencing this decision are: ***Country Specific Factors:*** these include macroeconomic fundamentals, growth potential and political stability. ***Sector Specific Factors:*** these include policies that influence industry structure, entry, competition and pricing behaviour in the sector under consideration. The cross-sectoral issues like liberalization of fuel markets also effect investment in power generation projects. ***Project Specific Factors:*** These include a number of contractual issues such as Power Purchase Agreement, Fuel Supply Agreement, Land acquisition, Environmental issues etc. Woodhouse (2005a), in his study, identified five key factors that constitute the investment climate for private investment in the power sector: (i) strong public finances, (ii) viability of the sector, (iii) efficiency of fuel markets, (iv) political climate including the role of civil society, and (v) the legal framework. The present study focuses on the comparative analysis of financing power projects in Canada and Indian power sectors where funds requirement is very high but the funds invested in power projects in both Canada and India are very less. The investment in power projects mainly depends upon risk profile of the project like, Construction risk, Operating risk, Market risk, Interest rate risk, etc. This paper examines the policies, methods/approaches of financing power projects and identifies opportunities and challenges in investments in both Canadian and Indian power sector. It attempts to draw lessons about investments in power sector projects. The paper is divided into four parts. Conceptual frame work is presented in the first part, power sector scenario and opportunities and challenges in investment in power sector in Canada is presented in the part-2; similarly power sector scenario and opportunities and challenges in investment in power sector in India are presented in part-3 and finally findings and conclusions are presented in part-4.

CONCEPTUAL FRAMEWORK

There is a close relationship between infrastructure financing and project financing "A sum total of all those activities undertaken in the financing of infrastructure development is known as infrastructure financing" (*Dr. S. Gurusamy2005*) "Infrastructure financing refers to any credit facility extended by banks and financial institutions for developing, operating and maintaining any infrastructure facility (*RBI*). Project finance refers to "The raising of funds to finance an economically separable capital investment project in which the providers of the funds look primarily to the cash flow from the project as the source of funds to service their loans and provide the return of and a return on their equity invested in the project (*John D Finnerty 2007*). If a project is implemented using a project-finance approach, the debt service payment relies solely on the project cash flows and its assets (*Andreas Wibowo et.all 2005*). Project-based financings must have time-certainty and cost-discipline to attract private debt and equity capital (*Willard price 2002*). For the development of country economy the power sector

contribution is significant. For the rapid growth of this sector large amount of funds are required. Providing required amount of funds to this sector by the government is not possible. Private sector participation in infrastructure is desirable not only to ensure a larger flow of resources but also to introduce greater efficiency in the supply of these services (*Montek S. Ahluwalia*). The major risks a project sponsor faces are political, financial, construction, operational, and market risks (*John E. Schaufelbergeretr.all 2003*).

SOURCES OF FINANCING

The important sources are Equity long-term debt markets, commercial bank loans, fixed rate debt markets, they are LIC's Quasi - public markets, public pension funds, private pension funds and other financial institutions. International capital market, supplier credits, Governmental assistance World Bank loans, inter American development bank, and local sources of capital World Bank loans - IBRD, IFC and Multi lateral Investment Guarantee Agency (MIGA) (*John D Finnerty2007*). Innovative financing instruments, such as simple subordinated debt, convertible debt, debt with stock warrants, and debt with an additional interest payment above the coupon rate contingent upon financial performance exist (*Montek S. Ahluwalia*). Another important source is *mezzanine finance* (quasi-equity). Equity has the lower rank and the last claim on the assets and cash flows of the project. Debt is often structured in the form of senior debt or subordinated debt. Senior debt has higher priority than all other claims on project cash flows and assets. Subordinated debt ranks behind other unsecured loans in payment obligations. Mezzanine finance refers to a kind of financial instruments that are primarily in the form of debt but also share some qualities of equity capital. Mezzanine finance includes convertible bonds and preferred stock (*Xueqing Zhang, M.ASCE 2005*). Infrastructure investments are typically upfront, with a high degree of asset specificity and risky revenue stream stretching many years into the future. (*Mansoor Dailamiet.all 1998*). The established Indian companies have successfully raised foreign currency denominated debt from international markets. The counter guarantee from the government helped the sponsors gaining more debt from other financial institutions **(***Abu Naser Chodhury, Chichi Charoenngam 2008*). The Indian debt market, however, remains dominated by public borrowing, which accounts for 96.02% of the total domestic market borrowings. Private financial institutions and corporate entities constitute just 3.98% of the capital mop up from the domestic debt market.

FINANCING STRATEGIES IN POWER PROJECTS

Once a project's revenue stream has been identified, innovative finance techniques can assist in capitalizing the value of the future project revenues to fund the investment. The financing of the private power projects on project financing basis is in the nascent stage. A number of methods have been explored in international infrastructure privatization in the form of (PPP's), including asset sale, contracting out, and deregulation. Apart from these the Conventional financing methods are:

Structured financing: As power projects involve large investments, the risk profile along with the cash flow profile of the projects decides the financial structure and package of the project. The institutional financing is mainly done through a consortium. A development financial institution acts as lead banker in the consortium. The other existing form of financing in India has been the equity route.

Use of special purpose vehicle (SPV): The most widespread financing option at present is limited recourse financing. In this method of financing a Special Purpose Vehicle (SPV) is created, which acts as the nodal agency for bringing together private investors and concerned Government agencies for the project. (*Jyoti P Gupta and Anil K Sravat1998).* There are various other methods of financing the infrastructure projects they are i) Equity participation of the government ii) Borrowing from institutional financers ii) Public bond issue with redemption option.

Leasing of infrastructure: most of the infrastructure involve a huge amount of fund. The private participation in terms of fund is very low. Hence, the government takes up the task of developing and constructing such projects like, roads and bridges then turns off to private parties. Contracting to sale with fund back up is another method this method of funding process is popularly known as securitization. The idea behind this is to convert a tangible asset in to a fund-based security through a special purpose vehicle (SPV). Once the assets are converted in to fund-based instruments they are sold to the public and cash received. (*Abhijit Dutta 2007*)

RISKS IN POWER PROJECTS FINANCING

Risk is the major element in power projects. The investment in power projects mainly depends upon risk profile of the project like, Construction risk, Operating risk, Market risk, Interest rate risk, Foreign exchange risk, Payment risk, Regulatory risk, Political risk. Liberalization has also affected the way power plants are financed. Firms are also seeking new strategies to hedge their risks. The absence of liquidity in financial markets for electricity, particularly for longer-term products, means that investors must seek other means of hedging their electricity price risks. In Canadian firms are also seeking new strategies to hedge their investments. Prior to liberalization, investment in the power sector was a relatively low business risk and, in many cases, state ownership made access to debt capital relatively easy. Even for independent power producers, the availability of a long-term contract, which would pass the marketing risk through to a single buyer, made it possible to finance investment at a low risk premium.

The reform of electricity market has led to changes in the way decisions are taken on power sector investment by addressing the commercial risks of new investment. The large economic potential of hydro has not been fully utilized in some developing countries because of the very substantial risk premium resulting from the high sovereign risk. We can see risk's of private participation in infrastructure, from the table given below0

TABLE 1: THE OPTIONS AND THE RISK FOR PRIVATE SECTOR PARTICIPATION IN INFRASTRUCTURE PROVISION

Option	Asset ownership	Operations of Maintenance	Capital Investment	Commercial Risk	Duration
Service Contract	Public	Public and private	Public	Public	1-2 years
Management contract	Public	Private	Public	Public	3 - 5 years
Lease	Public	Private	Public	Shared	8 - 15 years
Concession	Public	Private	Private	Private	25 - 30 years
BOT	Private of public	Private	Private	Private	20 - 30 years
Divestiture	Private (or) private of public	Private	Private	Private	Indefinite (May be instead by license)

Source: World Bank (1997b), Simon Maxwell and mark Robinson 2006

Because of the nature of the risks and the involvement of many participants, including project sponsors, lenders, government agencies, and regulatory authorities, risk mitigation arrangements are usually complex. They involve detailed legal and contractual agreements that specify

the obligations of different participants, set forth clear penalties for nonperformance, and offer protection to investors against actions beyond their control (*Montek S. Ahluwalia*).regulatory risk is the major element in power sector, because so many clearances are required from regulatory authorities to start power projects we can see the impact of regulatory risk on power projects from the table given below.

TABLE 2: REGULATORY RISK AND COSTS OF POWER PROJECTS BASED ON THE SIZE OF THE PROJECTS

Type of project	Unit Size	Capital Cost/KW	Operating Cost	Fuel Cost	Regulatory Risk
Coal	Large	High	Medium	Medium	High
Nuclear	Very Large	High	Medium	Low	High
Hydro	Very Large	Very High	Very low	Nil	High
Wind	Small	High	Very low	Nil	Medium.

Source: Power generation investment in electricity markets: (2003) International Energy Agency, France.

STRATEGIES TO HANDLE THE RISK

There are some recommended financing strategies for different project conditions. For low risk projects the financing strategies are: i) use high debt-to-equity ratio for maximum leverage and maximum return on invested equity, ii) establish minimum contingency credit facilities to minimize financing costs, iii) use capital markets to procure debt financing to reduce interest costs. For high political risk the financing strategies are: i) involve international firms or organizations to create leverage with local government authorities, ii) seek assistance from influential individuals or organizations who have rapport with local government authorities, iii) seek local government support and guarantees, and iv) establish contingency credit facilities to cover unanticipated expenses. For high financial risk the financing strategy is to involve international firms or organizations to create leverage with local government authorities. For high market risk the financing Strategies are: i) finance early phases with equity and temporary loans and refinance during the operation phase with lower-cost long-term debt, ii) structure the debt repayment schedule to start low and escalate during the initial years of operation, iii) negotiate contract terms that allow increases in user fees, iv) establish a contingency credit facility to cover unanticipated revenue shortfalls, v) restructure debt, if necessary, to solve cash flow problems during the concession period (*John E. Schaufelberger, et.all 2003*). There are two major approaches that could be thought of as equitable risk sharing arrangements in the financing of infrastructure projects: Concession approach and the structural financing option. Under concession approach, the concessionaire who builds the project, is granted a franchise to operate the project for a specified period. Under the structured financing option, non-recourse financing or limited recourse financing, SPV, GPV, FG etc, apart from this he also provides the financial instrument of asset based securitization, Municipal bonds etc. (*Dr. S. Gurusamy2005*).

CANADA POWER SECTOR

Electricity has become a cornerstone of the Canadian economy and Canadian life. Canadians are the third highest per capita users of electricity in the world (*Electric Power: A Canadian Specialty 2001*). Electricity in Canada is generated from a diversified mix of sources. The most important source is moving water, which generates 59.3 per cent of electricity supply. Canada is a world leader in hydroelectricity with over 72 million kilowatts of installed capacity. Fossil fuels are the second most important source of electricity in Canada. About 16.5 per cent of electricity supply comes from coal, 5.2 per cent from natural gas and less than 1.9 per cent from petroleum. Non-hydro renewable sources currently contribute 1.6 per cent of Canada's electricity supply. Hydro generation accounted for 59% of electric power in 2007, the largest source. Nuclear energy provided about 14% of total Canadian electricity production. Electricity generated using fossil fuels accounted for 26%. Total assets for the sector are estimated at $135 billion. There are more than 160,000 kilometers of transmission wire in Canada. *(The Canadian Council for PPPs)* The International Energy Agency (IEA) has forecast a Canadian electricity infrastructure requirement of USD 190 billion from 2005-2030 (*Canada electricity association 2007*). The power sector contribution to the country's GDP is very significant.In 2007 the share of energy was 27.2% in GDP. Canada's electricity demand is expected to grow by 36 percent from 2008 to 2025. CanWEA's Wind Vision 2025 calls for Canada to meet 20 percent of its total electricity demand from wind energy in 2025.

TABLE 3: GROSS DOMESTIC PRODUCT, ELECTRICITY GENERATION AND REAL ECONOMIC GROWTH OF CANADA IN 2008

province	2008 population (000)	GDP ($ millions)		Electricity generation (megawatt hour)	Real economic growth
		2007	2008	2008	2008
Newfoundland And Labrador	508	29524	31,458	43,161,902	6.55
Prince Edward Island	140	4549	4,716	106,019	3.67
Nova Scotia	938	33010	34,209	12,164,400	3.63
New Brunswick	747	26947	27,288	14,156,182	1.27
Quebec	7,751	296692	301,479	192,569,564	1.61
Ontario	12,929	584957	587,905	159,520,662	0.5
Manitoba	1,208	48549	50,886	35,144,419	4.81
Saskatchewan	1,016	51628	64,323	18,955,933	24.59
Alberta	3,585	258936	291,662	58,873,829	12.64
British Columbia	4,382	192528	199,214	65,824,059	3.47
Yukon,	33	1,767	2,000	369,934	13.19
Northwest Territories	43	4,776	5,419	685,607	13.46
Nunavut	31	1,386	1,497	155,263	8
Canada	33,311	1535646	1,602,474	601,687,773	4.35

Source: Energy statistics Hand book: First quarter 2009, statistics Canada, Catalogue no. 57-601-X

Canada is a world leader in hydroelectricity, which accounts for 59 per cent of the country's electricity supply. To promote the renewal of conventional capital stock Canadian electricity authority (CEA) introduced some measures: increasing the rate for combustion turbines that generate electricity from 8% to 15%. Quadrupling the Wind Power Production Incentive target to 4000 MW. The total electricity generation in Canada for the year 2007 was 603,572,420 mega watt hours and in 2008 is 601,687,773 mega watt hours (*Energy statistics hand book- Canada*

2007). Based on the National Energy Board (NEB's) 2007 Energy Futures Report, a steady decline of coal-fired generation in Canada is projected from slightly over 16 000 MW to 10 000 MW by 2030. Small hydro is Canada's largest contributor to the green power sector, with close to 2 000 MW of installed capacity compared with about 684 MW of wind power. (*NEB 2006*)

Total Electricity Generation in Canada (2009) 575.2 Twh. Hydro 63.2%, Nuclear 14.8%, Conventional Steam 17.4%, Internal Combustion 0.2%, Combustion Turbine 4.1%, Tidal0.01%, Wind0.3 %(*Energy Statistics Handbook, 4Q 2009. Table 8.2)*

TABLE 4: ELECTRICITY GENERATION IN CANADA BY ALL ELECTRICITY UTILITIES DURING THE PERIOD 2000-2009

Year	Electricity Generation (Megawatt Hour)
2000	537,231,585
2001	521,255,136
2002	532,403,594
2003	518,389,813
2004	522,563,325
2005	553,393,449
2006	538,252,752
2007	560,711,979
2008	601,687,773
2009	54117905(Q1*)

Sources: Statistics Canada 2009, U.S. Energy Information Administration

*First Quarter

INVESTMENT IN ELECTRIC UTILITIES IN CANADA

Electricity demand in Canada was expected to grow at an annual rate of 1.3 per cent between 2005 and 2020. Most of the growth in demand would come from the commercial sector, where demand is expected to grow at a rate of 2.6 per cent. Growth in this sector would reflect increased electricity use for space cooling and lighting and, to a lesser extent, for office equipment, ventilation and other uses. Electricity demand in the residential sector is expected to grow at an annual rate of 1.3 per cent. To meet this increased demand large amount of funds are required. For this, government introduced public private partnerships (PPP's). The number of Public-private partnerships (PPP's) in electricity sector 55 in the year 2004, 56 in 2005, 58 in 2006 and 57 in 2007. Renewable Power Production Incentive introduced to stimulate the new capacities of up to 1,500 MW of new renewable energy other than wind energy. Electricity sector capital investment reached $13.1 billion in Canada. According to a projection by the International Energy Agency, approximately $190 billion (US) of electricity infrastructure investment will be needed in Canada from 2005 to 2030 (generation $95 billion; transmission $27 billion; distribution $63 billion). In 2000 Canada's export development corporation (EDC) provided over $45 billion of insurance and financing support to Canadian business, with close to $1 billion specifically for the Canadian power sector (*www.dfait-maeci.gc.ca*). The details of investment are given in the table.

TABLE 5: TOTAL INVESTMENTS OF PUBLIC AND PRIVATE ELECTRIC UTILITIES IN CANADA IN 2007

Province/Territory	All electric Utilities	Public Utilities	Private Utilities
	Thousands of dollars		
Newfoundland And Labrador	644,823	644,823	0
Prince Edward Island	1,150	1,150	0
Nova Scotia	1,878	0	1,878
New Brunswick	646,237	646,237	0
Québec	378,424	228,000	150,424
Ontario	633,756	26,987	606,769
Manitoba	942,437	942,437	0
Saskatchewan	267,632	267,632	0
Alberta	1,234,776	62,979	1,171,797
British Columbia	92,477	90,612	1,865
Yukon,	0	0	0
Northwest Territories	53,983	53,983	0
Nunavut	0	0	0
Total	**4,897,573**	**2964840**	**1932733**

Source: Statistics Canada: Electric Power Generation, Transmission and Distribution – 2007

Investors now examine power generation options according to the different financial risks posed by the different technologies. Given the long-term nature of electricity investments, investment decisions in base load generating capacity are being made on the basis of long-term fundamentals. Liberalization has also affected the way power plants are financed. The Canadian experience with retail price caps appears to be yielding two very different results in terms of investment. The Alberta market experience suggests that a sufficiently high cap on prices may not deter investment in new capacity. However, the recent experience in Ontario shows that actions by government to intervene with low price caps can deter investment. Indeed, such political intervention destroys the integrity of the market by destroying incentives to invest and by creating moral hazard. However the investment increased year by year details see the table below.

TABLE 6: CAPITAL EXPENDITURE IN ELECTRICITY POWER GENERATION, TRANSMISSION AND DISTRIBUTION

Year	Capital (Millions of $)
2000	6417.3
2001	7778.1
2002	8675.0
2003	9666.2

2004	9825.0
2005	9814.1
2006	11774.9
2007	14179.8
2008	17748.8
2009	18492.1 (Q1*)

Source: Statistics Canada 2009. *First Quarter

In Canada investment of debt funds are very less especially in some provinces, private sector investment is nil, because of the high interest rates of banks in the year 2007 is 4.60 and in 2008 is 3.75. The liberalization electricity market has changed the nature of corporations responsible for investment. The debt funds are major source for the investment in to the power sector. The emergence of the financial markets encouraged the development of a new type of power plant investment – the so-called "Merchant" power plant. Canadian Utilities are notable as active investors and operators of IPPs through PPP's.

OPPORTUNITIES AND CHALLENGES OF INVESTMENT IN CANADIAN POWER SECTOR

The challenge for industry, governments and regulators is to find the optimum level of reliability given the diverse requirements. Good reliability includes continuity of service and appropriate voltage control. Enhancing System reliability through investment, technology and trade (*National Energy board 2004*). The Energy Plan's objectives are to maintain low electricity rates and maintain public ownership have a secure, reliable energy supply; stimulate private investment. Another challenge is increasing the efficiency of the power plant, and reducing fuel consumption. Replacement of old coal-fired power plants is another challenge which required large amount of funds. Based on the NEB's 2007 Energy Futures Report, a steady decline of coal-fired generation in Canada is projected from slightly over 16 000 MW to 10 000 MW in 2030. Canadian electricity association (CEA) identified challenges and opportunities are. I) Exploring new technology such as solid state transformers, remote control technology automated meter reading meters and supervisory control data acquisition (SCADA) etc. ii) Demand for new infrastructure investments: CEA estimated that electricity demand in Canada will grow between 1 and 1.5 percent each year for the foreseeable future. This means that significant investment in generation, transmission and distribution infrastructure will be required to meet this demand. CEA currently estimates this at $150 billion over the next 20 years. iii) High cost of substations and protective equipments which involve high cost capital equipments, making the components hard to replace. Iv) Energy efficiency v) new standards for power reliability improving power quality by reducing fluctuations and distortions in electricity voltage. The interest in emerging energy technologies has escalated with wind power leading the way. Wind power capacity almost tripled between 2001 and 2005, accounting for close to 684 MW of installed generating capacity at the beginning of 2006. Recent projections by the Canadian Wind Energy Association (CanWEA) suggest there will be 7 000 MW of wind generation available by 2013. Ontario's RFP programs for renewable power are guided by policy targets of five percent renewable in the energy mix by 2007 and 10 percent by 2010.

Demand-side Management challenges are Long-term investment and benefit, base load and peak load, environmental advantages, either by using more efficient technologies or by changing wasteful habits conservation and demand management should reduce the electricity demand. Ontario has recognized the connection between consumption, metering and conservation. Setting electricity prices is another challenge, which is governed by three components generation cost, transmission costs and distribution costs. There is lot of variations in the price between provinces in Canada. Minimizing subsidies and fixing levelised tariff is another challenge to power sector. Canadian utilities have turned increasingly to the Repair, Modernize and Upgrade (RMU) option as plants reach the end of their life cycle, it require large investment.

INDIA POWER SECTOR

The Ministry of Power started functioning independently with effect from 2nd July, 1992.

Earlier it was known as the Ministry of Energy comprising the Departments of Power, Coal and Non-Conventional Energy Sources. The all India installed power generation capacity as on 31.01.2008 was 141080 MW comprising of 90896MW thermal, 35208 MW hydro,4120 MW nuclear and 10856MW R.E.S The Central Sector's share in generation has gradually increased from 12% in 1979 to 34% as on 31.01.2008. On the other hand the share of the State Sector has declined from 82.5% to 53% while the share of private sector has gone up from5.2% to 13% during the same period. State government utilities capacity is 74453.76 MW, central government utilities capacity is 47350.99 MW and private sector utilities capacity is 19275.09 MW. (*Ministry of power annual report 2007-08*). As on 31st august 2010 total installed capacity is 1, 64,508.80 MW. The National Electricity Policy (NEP) stipulates power for all by 2012 and annual per capita consumption of electricity to rise to 1000 units from the present level of 631 units. To fulfill the objectives of the NEP, a capacity addition of 78,577 MW has been proposed for the 11th plan (2007-2012). This capacity addition is expected to provide a growth of 9.5 % to the power sector. In the current financial year during period Apr'07-Jan'08 the actual generation was 586.03 BU against 551.54 BU generated during corresponding period of previous financial year representing a growth rate of about 6.25%. Loss of generation due to fuel shortage (mainly gas) was of the order of 27.42 BU. But for this, growth rate would have been about 11.2%. The overall generation, power supply and capacity addition (Thermal+ Nuclear + Hydro) in public utilities in the country over the years are as under:

TABLE7: THE TOTAL POWER GENERATION OF INDIA DURING 1990-91 TO 2009-10

Year	Generation (BUs)
1990-91	264.3
1995-96	380.1
2000-01	499.5
2001-02	515.2
2002-03	531.6
2003-04	558.3
2004-05	587.4
2005-06	617.5
2006-07	662.52

2007-08	704.40
2008-09	723.793
2009-10	771.551

Source: Power: the building block of the economy: annual report 2007-08: ministry of power, government of India.
http://www.powermin.nic.in/JSP_SERVLETS/internal.jsp

Electricity generation capacity with utilities in India had grown from 1713 MW in December 1950 to 141080 MW in2008. India ranks world's sixth energy consumer accounting for about 3.5% of the world's total annual energy consumption, but per -capita consumption of energy is very low at 631kwh, as compared to world consumption of 2873 kWh, which needs to be increased to meet the goals of economic and social development.

TABLE 8: THE POWER SUPPLY POSITION OF INDIA FROM 1997-98 TO 2009-10

Year	Energy Requirement (MU)	Energy Availability (MU)	Energy Shortage (MU)	Energy Shortage (%)
1997-98	424505	390330	34175	8.1
1998-99	446584	420235	26349	5.9
1999-00	480430	450594	29836	6.2
2000-01	507216	467400	39816	7.8
2001-02	522537	483350	39187	7.5
2002-03	545983	497890	48093	8.8
2003-04	559264	519398	39866	7.1
2004-05	591373	548115	43258	7.3
2005-06	631554	578819	52735	8.4
2006-07	690587	624495	66092	9.6
2007-08	737052	664660	72392	9.8
2008-09	777039	691038	86001	11.1
2009-10*	688171	620003	68168	9.9

Source: Power: the building block of the economy: annual report 2007-08: ministry of power, government of India.
MOP: Annual Report 2009-10
*up to January 2010

If we see the above table shortage of the power in India increased year by year. To overcome this problem the government has to take measures to increase the capacity of power generation. It requires huge amount of funds it is not possible by the government, the private investment is required. There are several hurdles for the investment of private sector, to overcome that government has to take the initiatives to create investor friendly environment. To reduce the gap between the power requirement and availability, Government of India planned a series of ambitious power projects known as Ultra Mega Power projects (UMPP), each with a capacity of 4000 megawatts or above. As of July 2009, 14 UMPPs have been planned. Of the four UMPPs awarded earlier, Reliance Power bagged three at Sasan in Madhya Pradesh, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand. Tata Power has been awarded the Mundra UMPP in Gujarat. It may be observed that all the four projects went to private developers. However the capacity addition of private sector is not up to the expected level. We can observe this from the table given below.

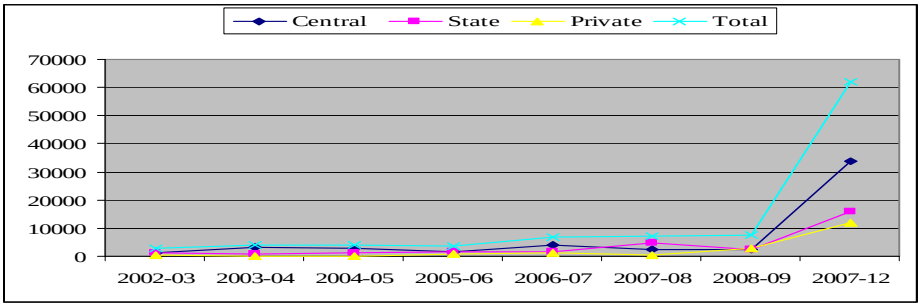
TABLE 9: TOTAL CAPACITY ADDITION (CENTRAL, STATE AND PRIVATE) OF INDIAN POWER SECTOR FROM 2002-03 TO 2012 (MW)

Years	Central	State	Private	Total
2002-03	1210	1100.10	548.00	2858.10
2003-04	3035	816.62	100.00	3951.62
2004-05	2710	1168.92	70.00	3948.92
2005-06	1420	1488	660.8	3568.8
2006-07	3890	1671	1291.8	6852.8
2007-08	2230	4783	250	7263
2008-09	2410	2359.2	2761	7530.2
2007-2012	34000	16000	12000	62000

Source: Power: the building block of the economy: annual report 2007-08: ministry of power, government of India.
MOP: Annual Report 2009-10

The trend of capacity addition by central, state and private sectors given in the above tables has been shown in the graph figure.

FIGURE 1: CAPACITY ADDITION (CENTRAL, STATE AND PRIVATE) OF INDIAN POWER SECTOR FROM 2002-03 TO 2012 (MW)



OPPORTUNITIES AND CHALLENGES OF INVESTMENT IN INDIAN POWER SECTOR

1. Over 90,000 MW of new generation capacity is required in the next seven years, a corresponding investment is required in transmission and distribution networks.
2. Large demand-supply gap: All India average energy shortfall of 7% and peak demand shortfall of 12%.
3. The implementation of key reforms is likely to foster growth in all segments:
   - Unbundling of vertically integrated SEB's
   - "Open Access" to transmission and distribution network
   - Distribution circles to be privatized
   - Tariff reforms by regulatory authorities
4. Opportunities in Generation for: Coal based plants at pithead or coastal location (imported coal) Natural Gas/CNG based turbines at load centers or near gas terminals
5. Hydro power potential of 150,000 MW is untapped as assessed by the Government of India, Renovation, modernization, up-rating and life extension of old thermal and hydro power plants.
6. Opportunities in Transmission network ventures - additional 60,000 circuit km of transmission network expected by 2012, Total investment opportunity of about US$ 200 billion over a seven year horizon
7. 100% FDI permitted in Generation, Transmission & Distribution - the Government is keen to draw private investment into the sector. Incentives: Income tax holiday for a block of 10 years in the first 15 years of operation; waiver of capital goods import duties on mega power projects (above 1,000 MW generation capacity)

India possesses a vast opportunity to grow in the field of power generation, transmission, and distribution. The target of over 150,000 MW of hydro- power generation is a main challenge to the Indian power sector. By the year 2012, India requires an additional 100,000 MW of generation capacity. There is still a peak demand shortage of around 14.8% and an energy deficit of 8.4% in the country. A huge capital investment is required to meet this target. This has invited number of power generation, transmission, and distribution companies across the globe to establish their operations in the country under PPP programmes. There are great opportunities in transmission network ventures, an additional 60,000 circuit kilometers of transmission network is expected by 2012 with a total investment opportunity of about US$ 200 billion (*www.pppinindia.com/sector-power.asp*). Ministry of Power has envisaged the establishment of an integrated National Power Grid in the country by the year 2012 with an inter-regional power transfer capacity of about 37,700 MW. Rural electrification is major challenge for the government. In 1947, only 1500 villages were electrified in India making it 100 percent is a major challenge. Another challenge is providing 90% capital subsidy to rural electrification infrastructure by the government. It require large amount of funds which is not available to the government. The gap between investment requirement and the historical investment profile presents a larger financial deficit in the power sector.

INVESTMENT IN INDIAN POWER SECTOR

The investment in infrastructure during the tenth plan was Rs 8, 87,794 crore which constituted 5.07 percent of GDP. This included Rs 1, 75,203 crore of investment by the private sector. The first major step towards encouraging private investment in the Power sector was taken in 1991 by providing a legal framework through an amendment of the existing Electricity (Supply) Act, Automatic approval (RBI route) for 100% foreign equity is permitted in generation, transmission, distribution and trading in power sector without any upper ceiling on the quantum of investment. The investment achieved in Indian power sector in eighth plan was Rs616750 million, the target for 9th(1997-02) plan was Rs 1245260 million, achieved amount is Rs 575760 million. The expert committee estimation for 1996-2001 is Rs 2464000 and for 2001-2006 is Rs 3780000. (*R.Karker, P.Mukhopadhyah.M.Kabra.A.Garg 2001*) Investment requirement during 11th plan (2007-12) $50 billion, another $ 50 billion for transmission, distribution and rural electrification (*Canning & Pedroni, 2004; Calderon & Servén, 2004*). The total details about the investment of centre, state and private sectors are given in the table below.

TABLE 10: PUBLIC AND PRIVATE INVESTMENT IN ELECTRICITY IN INDIA DURING THE PERIOD 2002-03 TO 2009-10 (*Rs crores*)

Year	Centre	State	Private	Total
2002-03	14219	20467	12926	47612
2003-04	17336	20566	15583	53485
2004-05	19708	18819	18428	56956
2005-06	22867	18329	21017	62268
2006-07	28332	19372	23825	71529
2007-08	29,386	27,252	54,497	1,11,134
2008-09	36,769	30,109	50,215	1,17,093
2009-10	39,528	31,193	55,237	1,25,958

Source: GOI, ministry of power 2010

If we see the above table the investment by public and private sectors increased year by year from the beginning of tenth five year plan to the current year. However there is a large gap between the requirement of funds and the availability of funds. The table below indicates the requirement of investment for Indian Electricity Sector during the period 2001-30 (IEA: 2003 a).

TABLE 11: TOTAL INVESTMENT FOR INDIAN ELECTRICITY SECTOR DURING THE PERIOD 2001-30(USD BILLION)

	2001–10	2011–20	2021–30	2001–30
Generation	69	83	116	268
Refurbishment	4	5	6	15
Transmission	29	39	51	119
Distribution	44	85	134	262
Total	146	212	307	664

Source: IEA (2003a)

The Indian power sector has not been able to attract substantial private investment, in proportion to its requirements, due to its inadequate legal and commercial framework, and delays in obtaining regulatory approvals (IEA, 2003a). The Government of India has taken initiatives to launch, Accelerated Power Development & Reform Programme (APDRP) in 2001. The scheme has two components: a) Investment component – Government of India provides Additional Central Assistance for strengthening and up gradation of sub-transmission and distribution network. 25% of the project cost is provided as additional central plan assistance in form of grant to the state utilities. To begin with the Govt. also provided loan to the tune of 25% of the project cost. Another important thing is, Unfavorable conditions in the international capital market reduced the ability of the investors to raise capital for new investments (*Lamech & Saeed, 2003*).

Exclusively to finance for power sector projects the Indian government incorporated some financing corporations. The Power Finance Corporation Limited (PFC) was incorporated in 1986 as a Development Financial Institution (DFI) dedicated to Power Sector. The main objectives to be pursued by PFC are: to Finance Power Projects, in particular, Thermal and Hydro Projects, Power Transmission & Distribution works, Renovation & Modernization of power plants etc. PFC's Performance (cumulative) during last two decades (since inception) as on 30th Nov 2007 the amount sanctioned was Rs.1, 56,322 crore, Disbursement Rs. 83,928 crore. As on 30th Nov, 2007, PFC had sanctioned loans of the order of Rs. 36,363 crore (during FY 2007-08) for a wide range of power projects in various parts of the country and disbursements were to the tune of Rs. 8,074 crore. Rural Electrification Corporation Limited (REC) was incorporated as a Company under the Companies Act, 1956 in the year 1969 with the main objective of financing rural electrification schemes in the country.

TABLE12: LOAN SANCTIONS AND DISBURSEMENT OF RURAL ELECTRIFICATION CORPORATION LIMITED (REC) (Rs in crore)

	2002-03	2003-04	2004-05	2005-06	2006-07
Loan sanctioned	12125	15978	16316	18771	32925
Loan Disbursed	6607	6017	7885	8007	13733

Source: Ministry of power GOI annual report 2007-08:

Persistent power shortages, inadequate public investment and the economic crisis faced by India in the early 1990s led to the opening up of the power sector to private investment and major policy initiatives were undertaken to encourage private and foreign investment. The power sector offers a wide scope for private investment through change of ownership of existing assets or Greenfield investment in generation, transmission or distribution assets. The privatization of the power sector is encouraged firstly to mobilize the needed financial and managerial resources, secondly, to improve the efficiency of services to the users (*Jyoti P Gupta and Anil K Sravat1998*). The Private Power Policy formulated in 1991 opened up the path to private and foreign investment in the generation and distribution of electricity. Private investors were offered a 16% return on equity, which was further incentivised in the case of higher efficiency levels in terms of plant load factor (PLF). The policy framework for private investment was further strengthened through the introduction of the Mega Power Policy in 1995 for thermal projects over 1000 MW and hydro projects over 500 MW. The privatization of developed countries is driven by the need to become competitive and provide greater choices to customers, in developing countries the need is funds for expansion and access to technology (*Rekha Jain*). The Indian Electricity Sector has gone through a lot of metamorphosis. The three major acts concerning the electricity sector were the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The Electricity Act 2003, enacted by the Parliament of India. The main basic features of the Electricity Act 2003 are: private transmission licensees, Distribution licensees would be free to undertake generation, transmission at the central and state level. Generation is being delicensed and captive generation is freely permitted. This leads to the involvement of private sector into the power projects to increase the investment.

The central government's liberalization of investment in the power sector had created competition among states to provide better incentives for attracting private investment. Some states have managed to maintain a sustainable investment environment for the investors. This has kept the investors' interest alive in the power sector in more hospitable states. Investors' choice of a particular state is influenced, among others, by the relative investment climate in the state, the growth potential, the financial status of the buyer utility and the available risk mitigation options. The Planning Commission has noted that a similar financial package for the privatization of Discoms in other states would require support of Rs.1 trillion (*GOI, 2005b*).

COMPARATIVE ANALYSIS OF INVESTMENTS IN INDIAN AND CANADIAN POWER SECTORS

FINDINGS

1. Canadian government is providing power generation incentive to stimulate the installation of new projects. Out of the total investments of public and private electric utilities in Canada in 2007, public utilities accounted for 60.53 per cent, while private utilities accounted for 39.47 per cent. The financing methods used to finance the projects are PPP's, including asset sale, contracting out, deregulation, build/operate/transfer (BOT), BOO, BOLT etc. and also public finance initiative, equity participation, Borrowing from institutional financers, Public bond issue with redemption option, Leasing of infrastructure structured financing, loans from Multilateral Financing Agencies (MLA's) non- recourse financing, limited recourse financing SPV, GPV, FG etc.
2. The core infrastructure sector grew by 4.8% during the first quarter of 2009-10 as compared with 3.5% growth during the corresponding quarter of the previous year, led by considerable growth in electricity by 5.7% as against 2% last year. The industrial sector currently accounts for **26.7percent** of India's GDP (at factor cost) in 2007-08.in this industrial output infrastructure accounts for 60 percent i.e. **16.02** percent.
3. The Canadian government incorporated "clean fund" exclusively to provide finance to power sector, the government also encouraged the organizations to adopt research to develop innovative technology through which they can reduce the production cost. For this the required capital is provided by the government.
4. In Canada the government intervention is high with low price caps. It can reduce investment from the private sector and also destroy the integrity of the market.
5. The Canadian power projects are unable to get sufficient debt funds, because of high interest rates of banks. It leads to poor installation of projects and less generation of power, due to this the overall performance of the sector will decline. So the government has to take the required measures to provide the loans at an affordable rate of interest.
6. One of the major challenges faced by Canadian power sector is lack of optimum level of reliability and enhancing system reliability. To address this challenge they have to develop the innovative technology by investing sufficient amount of funds.

7. Setting electricity prices is another challenge for Canadian power sector which is governed by generation cost, transmission cost and distribution cost. Generation costs are reduced by introducing innovative technology similarly Canadians have had to pioneer new transmission technologies such as the world's first 735 kV transmission line, which is state-of-the-art in extra high voltage (EHV) alternating current and high voltage direct current (HVDC). In Canada the prices of electricity set by the companies based on their flexibility. Pricing of electricity is subject to regulatory control in most countries but the way it has operated in India is seriously flawed. Electricity prices charged to consumers are fixed by state governments and have been set very low for certain categories of consumers such as households and agricultural users, and this is one of the major reasons for the poor financial condition of SEBs.
8. In India the generation of power is increasing year after year during the past 10 years but they were unable to achieve the target due to lack of innovative technology and required amount of funds. Government of India planned a series of ambitious power projects known as Ultra Mega Power projects (UMPP), each with a capacity of 4000 megawatts or above. As of July 2009, 14 UMPPs have been planned. Of the four UMPPs awarded earlier, Reliance Power bagged three at Sasan in Madhya Pradesh, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand. Tata Power has been awarded the Mundra UMPP in Gujarat. It may be observed that all the four projects went to private developers.
9. The central government's policy of liberalization of investment in the power sector, created competition among states to provide better incentives for attracting private investment.
10. The Indian government is spending billions of rupees to provide subsidized power and it is providing 90% capital subsidy on rural electrification infrastructure for rural electrification Programme.
11. The geographical distribution of private power projects in the country reveals a preference for the southern and western regions of the country. Investors' choice of a particular state is influenced, among others, by the relative investment climate in the state, the growth potential, the financial status of the buyer utility and the available risk mitigation options.

CONCLUSIONS

1) The growing investment requirement in the power sector places demand on investors' equity capital as well as debt funds. The investments in the sector are highly leveraged and require long-term loans. The longer tenure requirement for lending to the sector also limits availability of funds. The appetite for long-term debt instruments in the domestic market is also limited. The domestic bond market in the country is dominated by government borrowing leaving limited space for the private sector.
2) Unfavorable conditions in the international capital market reduced the ability of the investors to raise capital for new investments. These conditions in developing countries along with previous experience of investors in developing countries have been identified as the main reasons for the decline in foreign investors' interest in the power sector in these countries. Private investors respond to risk return tradeoffs. The policy environment and regulatory framework contribute significantly to the investment environment especially in the power sector.
3) Both the countries have to focus on reduction of emission of pollution in power generation. They can collaborate on developing CDM, CBM and renewable energy.
4) There are common issues for both countries in distribution system such as metering, supply of quality and reliable power etc. Trade associations of both countries can hold conferences and exchange ideas on how to improve distribution system.

REFERENCES

1. Abhijit Dutta (2007): *"Infrastructure Finance an Indian perspective":* Maha Maya publishing House New Delhi.
2. Abu Naser Chodhury, Chichi Charoenngam**:** (2008) *"Factors influencing finance on IPP projects in Asia; A legal frame work to reach the goal";*
3. *A Compendium of Electric Reliability Frameworks Across Canada* (2004) Her Majesty the Queen in Right of Canada as represented by the National Energy Board 2004
4. *Addressing challenges to electricity infrastructure development*: (2007) brief submitted to the council of energy ministers by the Canadian electricity association
5. Anoop Singh: (2007) *"Policy Environment and Regulatory Reforms for Private and Foreign Investment in Developing Countries: A Case of the Indian Power Sector"* ADB Institute Discussion Paper No. 64
6. Andreas Wibowo, S.M.ASCE, Bernd Kochendörfer*: "Financial Risk Analysis of Project Finance in Indonesian Toll Roads":* Journal of construction engineering and management © ASCE / September 2005.
7. Calderón, César and Served, Luis (2004), *"The Effects of Infrastructure Development on Growth and Income Distribution",* Working Papers No. 270, Central Bank of Chile, Huérfanos.
8. *Canada energy statistics hand book: first quarter 2009*, statistics Canada Catalogue no. 57-601-X
9. Canadian Government Funds Eights Private Sector CCS Projects **(**2009) POWER news
10. Canning, David and Pedroni, Peter (2004), *"The Effect of Infrastructure on Long RunEconomicGrowth"*JELClassifications:O1. H4.http://www.williams.edu/Economics/wp/pedroniinfrastructure.pdf
11. *Coal-Fired Power Generation*: A Perspective (2008) Her Majesty the Queen in Right of Canada 2008 as represented by the National Energy Board
12. David Jhirad (1990): *"Power sector innovation in developing countries" implementing multifaceted 1solutions":* Annu. Rev. Energy 1990. 15:365-98
13. Deepak parekh (2007): *"the report of the committee on infrastructure financing"* government of India New Delhi.
14. Dr.S. Gurusamy (2005): *"Financial services and System":* Thompson, Vijay Nicole publications
15. *"Electric Power: A Canadian Specialty the Canadian Electric Power Industry at the Service of the World*" (2001) Her Majesty the Queen in Right of Canada (Industry Canada) 2001
16. *Electric Power Generation, Transmission and Distribution* – (2007) Statistics Canada: Catalogue no. 57-202-X, Published by authority of the Minister responsible for Statistics Canada © Minister of Industry, 2009
17. *Emerging Technologies in Electricity Generation an energy market assessment* (2006): Her Majesty the Queen in Right of Canada as represented by the National Energy Board 2006

18. *Facts on Alberta, living and doing business in Alberta*: (2009) government of Alberta.
19. Fay, M. and Yepes, T. (2003*), "Investing in Infrastructure: What is needed from 2000–2010"*, World Bank, Policy Research Working Paper No. 3102, World Bank, Washington, DC.
20. FICCI (2002), (2003) *FDI Survey 2002*, 2003, Federation of Indian Chambers of Commerce & Industry, New Delhi.
21. GOI (2005b), *Mid-Term Appraisal of the Tenth Five Year Plan (2002–07),* Planning Commission, Government of India, New Delhi.
22. IEA (2003a), World Energy Investment Outlook. International Energy Agency, Paris www.ppi.worldbank.org
23. John E. Schaufelberger, M.ASCE, Wipadapisut*: "Alternate Financing Strategies for Build-Operate-Transfer Projects":* Journal of construction engineering and management © ASCE / march/April 2003 / 205
24. John D. Finnerty (2007)*: "project finance- asset based financial engineering".* John willey & sons Inc-New York.
25. Jyoti P Gupta and Anil K Sravat: (1998) *"Development and project financing of private power projects in developing countries: a case study of India*":
26. Montek S. Ahluwalia**:** *"Financing Private Infrastructure: Lessons from India*": http://planningcommission.gov.in/aboutus/speech/spemsa/msa009.doc
27. Mansoor Dailami and Danny Leipziger (1998): *"Infrastructure Project Finance and Capital Flows: A New Perspective":* World Development Vol. 26, No. 7, pp. 1283-1298, 1998 © 1998 Published by Elsevier Science Ltd
28. Natural Resources Canada (NRC). January 4, 2008 // Published as a news service by IHS http://energy.ihs.com/News/renewable-energy/2008/nrc-wind-energy-010408.htm
29. *NRC: Canada Invests $53M in Wind Energy Project*, January 4, 2008 Published as a news service by HIS: http://tdworld.com/news/Canada-electricity-sector/
30. OECD North American Energy Investment Requirements to 2030 http://www.canelect.ca/
31. *Power: the building block of the economy*: annual report 2007-08: ministry of power, government of India.
32. *Power generation investment in electricity markets*: (2003) international energy agency.France. http://www.iea.org/textbase/country/m_country.asp?COUNTRY_CODE=FR
33. RFQ for at least one UMPP soon: Officials Press Trust Of India / Mumbai July 12, 2009, 0:43 IST
34. Rekha Jain*: "Review of policy changes in the Indian Telecom sector":* infrastructure development and financing: Mc million.
35. R.Karker, P.Mukhopadhyah.M.Kabra.A.Garg (2001): *"Leveraging finances: emerging investment in infrastructure".* TERI, New Delhi.
36. Simon Maxwell and Mark Robinson (2006): *"The Future of Development Partnerships in Asia: Mapping the Agenda to 2015":* Development Policy Review, 2006, 24 (s1): s99-112 Published by Blackwell Publishing, Oxford OX4 2DQ, UK
37. *The Canadian Council for Public-Private Partnerships http://www.pppcouncil.ca/*
38. Xueqing Zhang, M.ASCE *Financial*: *"Viability Analysis and Capital Structure Optimization in Privatized Public Infrastructure Projects":* Journal of construction engineering and management © ASCE / June 2005
39. World Bank (2003), *"Implementing the World Bank Group Infrastructure Action Plan (with special emphasis on follow-up to the recommendations of the World Panel on financing water infrastructure)",* World Bank, Washington, DC.
40. Woodhouse, Erik J. (2005a), "*The Experience of Independent Power Producers in Developing Countries*", Final Report, Program on Energy and Sustainable Development, Center for Environmental Science and Policy, Stanford University, Stanford,CA.
41. World Bank (2003), "*Implementing the World Bank Group Infrastructure Action Plan (with special emphasis on follow-up to the recommendations of the World Panel on financing water infrastructure)",* World Bank, Washington, DC.
42. *Wind Vision 2025 Powering Canada's Future* (2008) canwea, Canadian energy association. www.windtrm.gc.ca/pdfs/windvision_summary_e.pdf
43. Willard price: *"Innovation in public finance Implications for the Nation's Infrastructure":* Public works management & policy, vol. 7 no. 1, July 2002 63-78 © 2002 sage publications

www.statcan.gc.ca
http://energy.ihs.com/News/renewable-energy/2008/nrc-wind-energy-010408.htm
http://www.nrcan.gc.ca/eneene/sources/eleele/abofai-eng.php
http://www.adbi.org/discussionpaper/2007/04/26/2236.policy.environment.power.sector/power.sector.investment.in.developing.countries.requirements.and.prospects
http://socialfinance.ca/blog/2009/06/wind-energy-a-global-investment-opportunity-will-canada-be-a-global-player/
http://www.iea.org/textbase/nppdf/free/2000/powergeneration_2003.pdf
http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/nrgyrprt/lctrcty/lctrctytrndsssscnd2001-eng.pdf
http://tdworld.com/news/Canada-electricity-sector

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