Preface

India represents an attractive destination for the power industry because of being one of the fastest growing economies and the second largest populated country. With the proper enactment of several policies there has been a phenomenal growth in capacity addition in the last few years and in the coming future the trend is likely to continue. Reforms such as, the Electricity Act and National Electricity Policy will provide the necessary stimulus to the Indian power sector to move ahead.

In order to properly address the demand-supply gap the effective solution lies in tapping the underlying potential and adding further capacities, thus the states are complementing the efforts made by the central government for achieving the targets. The states are making targets for capacity additions and formulating strategies in co-operation with central and private players to ensure that the power deficits can be reduced and the very objective of power to all can be achieved. The states are also focusing on those aspects of energy, in which they have an edge, such as solar power, wind power or hydro power.

The work is an attempt to effectively analyze the Indian power sector in the perspective of private sector participation in power generation in Uttar Pradesh, by focusing on key aspects relating to private sector participation in power generation. The work is also an attempt to make the study in view of the impacts of reforms done in other countries and within India in other states since the area of study on primary focus is taken as Uttar Pradesh.

When India became independent in 1947, the country had a power generating capacity of 1,362 MW. Generation and distribution of electrical power was carried out primarily by private utility companies. Power was available only in a few urban centers; rural areas and villages did not have electricity.

After 1947, all new power generation, transmission and distribution in the rural sector and the urban centers (which was not served by private utilities) came under the purview of State and Central government agencies and thus the State Electricity Boards (SEBs) were formed in all the states.
National Thermal Power Corporation (NTPC), National Hydro-electric Power Corporation (NHPC) and Power Grid Corporation Limited (PGCL) were formed by the government to assist in meeting the increasing demand for electricity throughout the country. Both the State and Central governments participated in the sector’s development. The Ministry of Power in the Central government formulates the policies for the power sector and the Central Electricity Authority (CEA) was established as a statutory authority to function as an aid for Technical approval of projects and also to act as a regulatory authority. As per government guidelines, all power projects above a certain capacity have to obtain techno-economic clearance from CEA before they can be implemented. A new Ministry of Non-Conventional Energy Sources has also been formed to focus on renewable energy sources to augment the generation capacity of electrical power.

The policy of liberalization the Government of India was announced in 1991 and consequent amendments in Electricity (Supply) Act have opened new vistas to involve private efforts and investments in electricity industry. Considerable emphasis has been placed on attracting private investment and major policy changes have been announced by the Government in this regard from time to time.

In Chapter -1 power sector of India has been introduced, describing the Indian scenario, Global Scenario and the Scenario of Uttar Pradesh. Cost of power generation, role of private players, various reforms undertaken by different states, global scenario and power generation scenario of Uttar Pradesh has been discussed elaborately.

Chapter- 2 is the survey of literature wherein the need of private sector participation in power generation, drivers of private sector participation in power generation, sustainability of private sector power projects, availability of resources for capacity addition and privatization in various developed and developing countries have been discussed. Based on the extensive literature review capturing these points the research gap has been established.

Chapter-3 describes the research methodology wherein based on the research gap and the statement of problem the research objectives have been identified. Further based on these objectives hypothesis have been framed. The chapter describes on the scope of study, type of research, population/universe taken and the sampling procedure
adopted. The chapter further details the steps of questionnaire development, selection of survey method, administration of final questionnaire and the analysis techniques applied. At the end of the chapter it includes the limitations of the study under the given conditions.

Chapter-4 exhaustively describes the analysis & findings, based on the outcome of the survey using suitable statistical techniques such as Chi Square test and ANOVA. Hypothesis testing has been done on the outcome of the survey administered to the end consumers of power. The other set of survey administered to private sector power generation companies have been analyzed to draw apt inferences.

Chapter-5 completes the study with conclusions drawn from the analysis and literature review, incorporating suitable recommendations for these findings and suggesting directions for future research.