

INDIAN POWER SECTOR: GROWTH & CHALLENGES

A CASE STUDY ON ADANI AND TATA CASE

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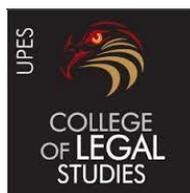
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DISSERTATION SYNOPSIS

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CERTIFICATE

This is to certify that the research work entitled “Indian Power Sector: Growth and Challenges”. A Case Study on Adani and Tata Power” is the work done by Sahej Mahajan (R450212131) under my guidance and supervision for the partial fulfillment of the requirement of B.A.,LL.B (Hons.) degree at College of Legal Studies, University of Petroleum and Energy Studies, Dehradun.

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DECLARATION

I declare that the dissertation entitled “Indian Power Sector: Growth and Challenges with emphasis on Adani and Tata Case related to Compensatory Tariff” is outcome of my own work conducted under the supervision of Prof. Mr. Sam Babu K.C., at College of Legal Studies, University of Petroleum and Energy Studies, Dehradun.

I declare that the dissertation comprises only of my original work and due acknowledgement has been made in the text to all other material used.

Sahej Mahajan

Date:

ACKNOWLEDGEMENT

On the completion of this dissertation I would like to thank my mentor Mr. Sam Babu K.C., who has been instrumental in its making. I would like to thank him for helping me with the research work and for his excellent insights which gave direction and focus to the dissertation. This dissertation would have not been possible without his help and guidance. Apart from guiding me through out, he gave me utmost freedom and liberty in carrying out my research. I would like to express my gratitude for his invaluable assistance, support and guidance throughout.

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ABBREVIATIONS

ARR	Aggregate Revenue Requirement
BPL	Below Poverty Line
BST	Bulk Supply Tariff
CA	Commission Approval
CERC	Central Electricity Regulatory Commission
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CGS	Central Generating Station
COD	Commercial Date of Operation
CoS	Cost of Supply
CoS	Cost of Service
CPI	Consumer Price Index
DISCOMS	Distribution Companies
DS	Domestic Supply
EA	Electricity Act
ED	Electricity Duty
FSA	Fuel Surcharge Adjustment
FY	Financial Year
GFA	Gross Fixed Asset
HERC	Haryana Electricity Regulatory Commission
IPP	Independent power Plant
MoP	Ministry of Power
MW	Megawatt
MYT	Multi- year Tariff
NEP	National Electricity Policy
NTI	Non -Tariff Income

NTP	National Tariff Policy
O&M	Operating and Maintenance
PGCIL	Power Grid Corporation of India Limited
PLEC	Plant load Exemption Charges
PLF	Plant Load Factor
PPA	Power purchase Agreement
ROE	Return on Equity
ROR	Rate of Return
RST	Retail Supply Tariff
SEB	State Electricity Board
SERC	State Electricity Regulatory Commission
SLDC	State load dispatch Center

TABLE OF CASES

- 1) Coastal Gujarat Power Ltd vs. Gujarat Urja Vikas Nigam Ltd & others [(2007) CERC 118].
- 2) Shankar Sah vs. Electrical Executive Engineer (2005) CPJ 178 NC.
- 3) Maharashtra State Electricity Board vs. K.L. Ramani, 1995 (1) CPR 334 NC
- 4) West Bengal Electricity Regulatory Commission & others vs. Calcutta Electricity Supply Company, (2002) 8 SCC 715.
- 5) Ruby Mushroom Pvt. Ltd vs. PSEB, (2005) CPJ 252 (NC).
- 6) Haryana State Electricity Board vs. Dev Raj Vinayak, (1995) CPJ 124 (NC)
- 7) The Assistant Executive Engineer, Chennai vs. A.G. Swaminathan. 2002 (3) CPR 224 (NC)
- 8) Dhanrajmal Gobindram vs. Shamji Kalidas & Co, AIR 1961, SC 1285

SYNOPSIS

STATEMENT OF THE PROBLEM

The last two decades have witnessed major changes in the electrical energy sector. Countries, including India have deregulated their energy sectors, from a controlled and monopolistic industry to one where the market forces of demand and supply determine the unit price of electricity. Prior to the early 1990's the power industries of most countries were state owned. However, due to the quest for better economic efficiency in the electricity sector, policies aimed at competition and liberalization of markets started emerging in various countries.

The Electricity Act, 2003 is a legislation in India that aims to transform the power sector. Further, the act strikes a balance, which takes into account the complex ground realities of the power sector in India with its intractable problems. In this regard the dissertation would discuss the current tariff mechanisms and its flaws which have been reiterated by the judiciary in the case study of Adani and TATA in which the court has elucidated on the issue of compensatory tariff.

Hence, the statement of problem for the dissertation is what the problems with current tariff regulatory regime are and whether re-negotiation of certain terms/clauses under the Power Purchase Agreement (PPA) is feasible?

REVIEW OF LITERATURE

The aim of Literature Review is to review the provisions, case laws and articles to understand the extent of judicial intervention. These are some books, articles and cases referred so far:

ARTICLES:

1. **PARANJOY GUHA, *POWER TARIFF SCAM GETS BIGGER AT RS. 50,000 CRORE*, ECONOMIC & POLITICAL WEEKLY, VOL. 51, ISSUE NO. 20, 14 MAY, 2016**

In the above mentioned article the main issue which has been discussed is related to inflation of coal prices which are being imported from Indonesia. Further, it discusses

about two sets of cost (fixed and variable) and also over invoicing of power plant equipment which ultimately lead to higher electricity tariffs for consumers.

2. COMMITTEE REPORT ON COMPENSATORY TARIFF FOR MUNDRA POWER PLANT OF COASTAL GUJARAT POWER LIMITED (CGPL)

The report discusses about the method of calculation of compensatory tariff under the electricity act and also the considerations for calculating compensatory tariff have been stated in the report of the committee. Further, it discusses about the alternative methods or technique which can be used calculation of compensatory tariff. Moreover, the report states about certain considerations suggested by CERC, such as Profit from promoter shareholding in the Indonesian mines, blending with low grade coal etc.

3. OWEN ZINAMAN AND MACKAY MILLER, *THE EVOLVING ROLE OF THE POWER SECTOR REGULATOR*, NATIONAL RENEWABLE ENERGY LABORATORY (NREL)

The article discusses about the current global dynamics in the regulatory sector under the power sector and it also states prioritization and harmonization of multitude of objectives that exemplifies the essential challenge of power sector regulation.

4. AHLUWALIA AND BHUTANI, *TARIFF SETTING IN THE POWER SECTOR*, TERI CONFERENCE ON REGULATION IN INFRASTRUCTURE SERVICES

The research paper discusses about the financial viability of electricity business in India and the challenges which are being faced in the tariff regulation. Further, it states about the empowerment of stakeholders, independent functioning of the commission, principles of tariff determination and link between restructuring and tariff reform.

5. POWER SECTOR IN INDIA BY KPMG INDIA

The paper discusses about the current scenario of Indian Power Sector in India, the dominance by state and central utilities, challenges and risks which are being faced by the power sector and certain principles have been discussed to address the challenges.

6. Vijay Vir Singh, Siddhartha Mitra, *Regulatory Management and Reform in India*

Apart from providing an elaborate background of energy regulation in India, the paper provides of the facts that the Government realizes of the existing evolution of a haphazard and uneven regulatory environment in India and there exists “no regulator in some sectors, partial regulators in others and relatively comprehensive regulators in yet others”. The paper thereby provides suggestions to reform the existing framework to bring in solutions to the working of existing regime.

BOOKS:

1. **CHATTERJEE’S S.K., *THE ELECTRICITY LAWS OF INDIA*, 2ND EDITION, DELHI LAW HOUSE, PART X, PG 171**

The chapter deals with the regulatory framework of electricity sector after the enactment of the Electricity Act, 2003. Further, it discusses about regulatory commissions and its range of activities such as powers to fix tariff, regulate the phasing out of open access etc. Moreover, it states about the pre evolution of the sector where all the responsibilities were with the state organizations.

2. **BHARUCHA NAUSHIR, *GUIDE TO THE ELECTRICITY LAWS*, FOURTH EDITION, 2004, PG 1487**

In this book Part IV deals with The Consumer Protection Act, 1986 and Electricity Laws. In this chapter it is further stated that the ultimate burden would be shifted on the consumers with the increase in tariff, so certain measures should be taken to avoid such kind of scenario and also to protect the interest of the consumers.

CASE:

Coastal Gujarat Power Ltd vs. Gujarat Urja Vikas Nigam Ltd & others [(2007) CERC 118]

RESEARCH QUESTIONS

- 1) What are the problems with the current tariff regulatory regime in India?
- 2) What are the adverse consequences of such disputes on consumer?
- 3) What are the ambiguous terms in the PPA, as discussed in the judgment?
- 4) What are the future prospects for the Indian Power Sector?

5) What is the Economical, technical and legal viability of the PPA in discussion?

SCOPE OF THE RESEARCH

The scope of my research extends to inter disciplinary study for consumer protection norms and also to intergovernmental approach towards tariff modelling and further, synchronization of domestic law with international norms.

Now my aim will be to get maximum knowledge about Compensatory Tariff and I will try to use appropriate methodology

RESEARCH METHODOLOGY

The research method to be followed shall be doctrinal with the formulation of legal reforms through the analysis of existing legal rules and framework. An evaluation of the effectiveness of existing legislations governing the regulatory framework in achieving particular social and economic goals shall be adopted as a method of research.

The sources of data collection shall be primary and secondary data in which I will be collecting all the data and statistics from the established news, magazine reports, journals, internet and libraries around India. I will try my best to do justice to the dissertation and that it is authentic.

HYPOTHESIS

Feasibility of the grant of Compensatory tariff under Power Purchase Agreement in the context of legislative regime governing the power sector.

SCHEME OF CHAPTERS

INTRODUCTION

Chapter I: OVERVIEW OF INDIAN POWER SECTOR

- a) *Present Scenario of Power Sector in India*
- b) *Reforms in Pre-1991 Era*
- c) *Reforms in Post-1991 Era*
- d) *Operational Framework*
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Chapter II: TARIFF REGULATORY REGIME

- a) *Scenario for Evolution of Compensatory Tariff*
- b) *List of Stakeholder's*
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Chapter III: INTRODUCTION TO CASE OF ADANI AND TATA FILED BY SEB OF GUJARAT

- a) *Power Purchase Agreement of ADANI AND TATA with the State of Gujarat and Haryana*
- b) *Discussion of Specific Clauses under the Power Purchase Agreement*
 - i) *Change in Law*
 - ii) *Force Majeure*
- c) *Judgment delivered by Central Electricity Regulatory Commission*
- d) *Implication of these judgments on the Power Sector*

Chapter IV: JUDGMENTS BY SUPREME COURT AND APTEL

- a) *APTEL Judgment and its Observations*

CONCLUSION

INTRODUCTION

The last two decades have witnessed certain major changes in the electrical energy sector. Countries, including India have deregulated their energy sectors, from a controlled and monopolistic industry to one where the market forces of demand and supply determine the unit price of electricity. Prior to the early 1990's the power industries of most countries were state owned. However, due to the quest for better economic efficiency in the electricity sector, policies aimed at competition and liberalization of markets started emerging in various countries. Moreover, the government had stated in its National Electricity Policy Plan¹, that electricity shall be provided to everyone, but still there are numerous places in India with no electricity at all. Also, it can be stated that "India being the fifth largest electricity producer after US, Russia, China etc., but its per capita consumption is the lowest".²

"The Electricity Act, 2003 is a legislation in India that aims to transform the power sector." Further, the "act strikes a balance, which takes into account the complex ground realities of the power sector in India with its intractable problems." Also, the act has helped in unbundling of State Electricity Board's into separate transmission, generation and distribution entities and further there is no requirement for license for setting up generation unit and certain reforms have been made in the transmission and distribution sector.³ Also, the power sector is undertaking to meet the challenge of providing adequate power needed to fuel the growing economy of the country. So, as the Indian economy to surge ahead, the power sector has been expanding concurrently to support the growth rate. But, again it has to be seen that the power sector is within the realms of the principles of sustainable

¹ National Electricity Policy,2006, (10 Jan 2017, 10.05 AM), <http://powermin.nic.in/en/content/national-electricity-policy>

² A Comprehensive Study and Analysis of Power Sector Value Chain in India by Sita Misra. The figures were reported by the Wall Street Journal

³ Yoginder Alagh, *Transmission and Distribution of Electricity in India, Regulation, Investment and Efficiency*, (12 Jan 2017, 05.05 PM) , <https://www.oecd.org/dev/development-philanthropy/46235043.pdf>

development⁴, so India needs a huge jump in its electricity supply to meet its growing economic growth and to make all the possible efforts to manage all stages of value chain”.⁵

“Furthermore, there have been certain recent developments in the power sector such as the concept of Compensatory Tariff which came into light in the case of Adani and Tata, in which two key issues which arose were that who shall be liable for the change in law clause and force majeure clause and again in the end the ultimate sufferer would be the consumer. Further, given the significance of the role of the government in the sector of electricity, it is difficult to recognize the effect of regulators. So, what we get, best case scenario is a divided view. “The view that we do get is that direction in the power sector, there has not been successful regulatory functions been performed”.⁶

The reason is the industrious refusal by the political class to view power as a private decent and along these lines enable the regulators appropriately. The very idea of autonomous control has still not been completely acknowledged. In the pre-change period, the power sub-sector was commanded and controlled by the state dominance. The power generation and distribution areas however, was also controlled by the state- owned companies/utilities.

“In the mid 1990’s, India opened this area to private venture perceiving that people in general part alone was not able create the required assets and resources. To pull in private venture, the need to make a suitable administrative condition that limits undesirable political impedance in the segment was felt. As an evolution to this “Central Electricity Regulatory Commission (CERC) and State Electricity Regulatory Commissions” (SERCs) were constituted as independent regulators for the sector at the central and state levels individually”.⁷

As power is a fundamental utilization source and utilized by all segments of society, it gives wide extension to electorally productive political mediation in the “regulatory

⁴ Atmanand & Amit K Gupta, *Energy and Sustainable Development- An Indian Perspective* , (14 Jan 2017, 11.15 AM), <http://indiagovernance.gov.in/files/energy-sustainable-development.pdf>

⁵ *Emerging Opportunities and Challenges. Indian Energy Congress*, PRICEWATERHOUSECOOPERS (2012), (17 Jan 2017, 12.05 AM) https://www.pwc.in/assets/pdfs/power.../energing_opportunities_and_challenges.pdf

⁶ Devendra Kodwani, *Institutional Endowments and Electricity Regulation in India*, (18 Jan 2017, 01.05 AM) http://regulation.upf.edu/bath-06/10_kodwani.pdf.

⁷ *Central Electricity Regulatory Commission and State Electricity Regulatory Commission*, CENTRAL ELECTRICITY REGULATORY COMMISSION, (18th Jan, 2017, 11.05 PM), <http://www.cercind.gov.in/serc.html>

decision making process”. Accordingly, choices identifying with duties and venture have been very affected by political interests. A survey demonstrates that the administrative framework in this division needs autonomy, responsibility, straight forwardness and partner participation. A regulator needs independence and autonomy from the administration to release its capacities in a free and straightforward way.

On paper, the part of the administration/government (central and state) is to issue fitting approach rules in discussion with the individual controller however there are covers in the separate wards of the legislature and controllers. For instance, ERCs are engaged to tariff determination for consumers yet the administration has not permitted them to decide duty at their carefulness. The Act permits the state governments to give endowment to meriting shoppers yet the individual governments need to pay the sponsorship sum ahead of time to the utility. By and by, the legislatures give appropriation however don't make proportional installment to the utility which unfavorably influences it money related wellbeing and nature of administration.

An imperative part remains to be financial autonomy. Reliance on dubious budgetary portions diminishes the freedom of administrative bodies. “In India, ERCs, with few exceptions, depend upon state exchequers although the Electricity Act 2003 empowers them to generate revenue through license fees etc. The lack of financial independence also leads to problems relating to quality and capacity of personnel. The ceiling on salaries imposed by governments prevents the ERCs from appointing quality personnel. At the same time, financial constraints prevent them from conducting adequate training programs to enhance the capacity of their staff.”⁸ Policy rules require administrative bodies to receive straightforward and participatory basic leadership forms.

The Regulatory Commissions provide a medium for consumer participation in the process of decision making but this does not happen as because of lack of awareness of those

⁸ *Regulatory Policy in India: Moving towards Regulatory Governance, Public Governance and Territorial Development Directorate Regulatory Policy Committee, GOV/RPC(2014)15, (2014), Organization for Economic Cooperation and Development, (19 Jan, 2017, 11.55 AM)*
[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/RPC\(2014\)15&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/RPC(2014)15&docLanguage=En)

consumers and therefore, public participation has always been weak.⁹ What poses to be of most value in all determinations of functions relating to power sector is still controlled by the Government.

As by the World Bank Report, “on the brighter side, ERCs have been successful in ensuring fast redressal and this in turn has led to an improvement in the quality of service and to sum up, political issues have played a very important role in the regulation of this sector; by and large, political interests have been able to regulate the regulators but ERCs have been able to augment transparency and accountability to some extent in the power sector.” It can be seen that the main purpose of the electricity act itself is to promote competition and maintain transparency, so that the effective working by the organizations can be carried out.

So, in this regard in the following chapters certain issues would be discussed such the current tariff mechanisms and its flaws which have been reiterated by the judiciary in the case study of Adani and TATA in which the court has elucidated on the issue of compensatory tariff.

⁹ *Consumer Participation and Protection in Electricity Regulation*, CUTS INTERNATIONAL, (20 Jan 2017, 04.05 PM) http://www.cutsccier.org/CPSEr/pdf/Consumer_Participation_and_Protection_in_Electricity_Regulation-A_Study_of_Five_States_in_India.pdf

CHAPTER I: OVERVIEW OF INDIAN POWER SECTOR

As, we know that the power sector is enumerated under the concurrent list in the Constitution of India and that it is the responsibility of both Central and State Governments and also mostly central and state governments accounts for generation capacity and only around 13% of generation capacity is accounted by private players. But, with the rapid growth in industrialization and advancement in technology more and more private players like TATA, Reliance Power etc., are entering the market for the distribution of electricity to the ultimate consumers.

Over a period of time the power sector has seen a lot of changes, if we go back to the starting point i.e. Indian Electricity Act, 1910 was formed to regulate supply by the concerned licensees to the consumers. After that in the year 1948 Indian Electricity (Supply) Act which was the foremost act which dealt with the electricity laws in India. The main objective of the act was the formation of State Electricity Boards which gave them powers of generation, “transmission and distribution within their respective states” and on the other hand Central Electricity Authority was formed for development and planning of the power sector. Further, moving on, in the year 1998 Electricity Regulatory Commission Act was formed (which replaced the earlier act) which paved the way for formation of the CERA (central electricity regulatory commission) and SERC (state electricity regulatory commission) and accordingly regulatory powers of the state governments were transferred to SERC, on the other hand tariff regulatory function was transferred to CERC. Now, finally moving to the Electricity Act, 2003 which repealed all the previous legislations related to electricity in India. The present act provides for more transparency and accountability as compared to the previous acts and it also establishes clear mechanism for licensing of distribution companies and to regulate the tariff structure on timely basis.

However, “India has the third largest coal reserves and fourth in terms of production” and as it is suggested by planning commission that India will still have surplus coal by 2030.¹⁰ It also stated that 77% of coal in India was used by the power sector for generation of

¹⁰ *Power Sector Reform in Orissa: A case study in Restructuring*, PLANNING COMMISSION, (24 Feb 2017, 04.05 PM) planningcommission.nic.in/plans/stateplan/sdr_orissa/sdr_orich13.doc

electricity over the last few years.¹¹ As per the Central Electricity Authority, the demand for electricity has exceeded its availability both in case of peak availability and base load energy. So, it can be seen that India needs to bridge the gap between demand and supply of electricity for sustainable growth and development of the sector. The main reason for the growth of energy demand at this rapid rate is due to industrialization and urbanization.¹²

The table below enumerates India's GDP for last 5 years in which it can be seen that the GDP for the year 2012-2013 has seen an increase of 6-7%¹³ from the previous year and similarly India needs to ramp up its power sector in order to see 8% growth in the power sector by the year 2030.¹⁴

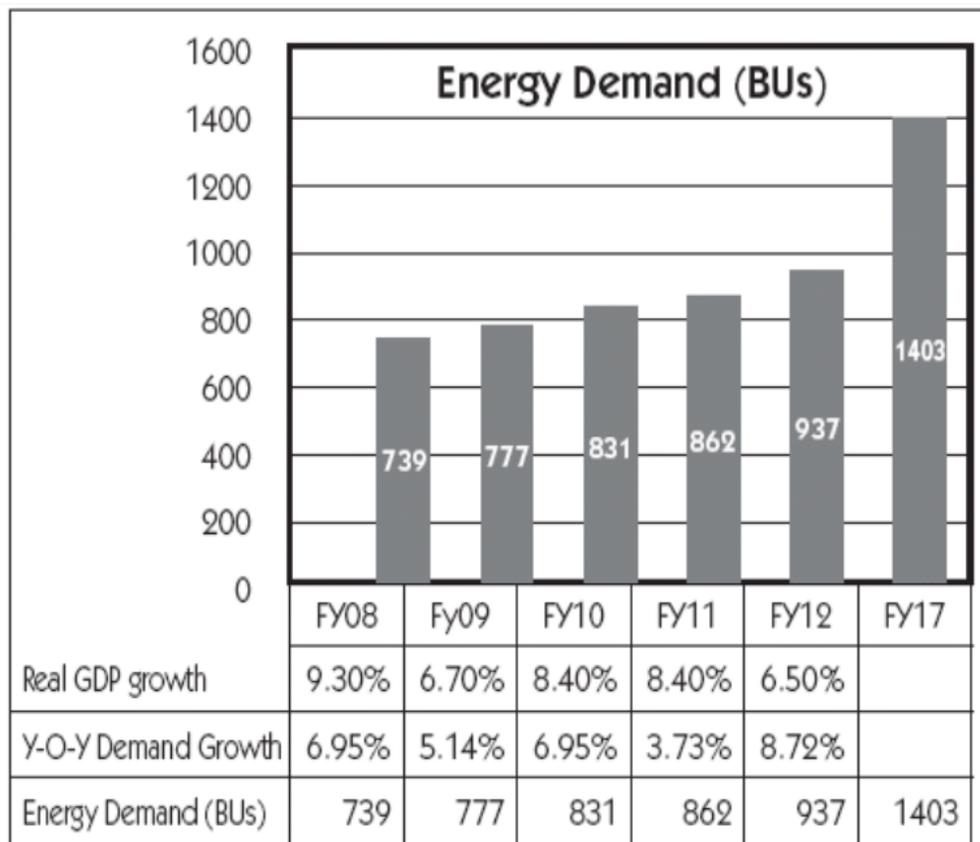


Table:1

¹¹ *Id.*

¹² *Impact of Urbanization and Industrialization on Energy Consumption*, Renewable and Sustainable Energy Reviews 52, 1107-1122 (2015)

¹³Sita Mishra, *A Comprehensive Study and Analysis of Power Sector Value Chain in India* (2009)

¹⁴*Report of Working group on Power for XIIth Plan*, CENTRAL ELECTRICITY AUTHORITY

1.1 Present Scenario of Power Sector in India

As, we already know that India is the fifth largest producer of electricity and also being the 6th larger consumer of the same and on average it accounts for 3.4 percent of global consumption.¹⁵ Further, over a span of thirty years' energy demand in the country has increased at an average of 3.6 percent per annum and also in the financial year 2013-2014 the highest capacity of addition of 20,000 MW was achieved.¹⁶ Also, it is stated that the public sector undertakings are willing to spend a whopping amount of Rs.50,000 crore in all the projects relating to power sector and on the other hand private sector has been facing certain issues relating to the distribution losses which it is suffering due to unavailability of fuel and certain other factors. Also, the power ministry has proposed to sanction an amount of Rs.37 crore for the CEA, which will help in the development and strengthening of institutional framework.¹⁷ Further, under the 12th plan, the overall investment required in the power sector is around 12 to 14 lack crore of rupees and the main focus of the investment should be to handle the distribution, transmission and generation of electricity in more effective and efficient manner, which will lead to healthy growth of the power sector.

Further, a committee was formed in relation to the power sector, and it submitted its report in which it stated that in the coming few years the distribution model is expected to grow at immense pace which will further help in improving the distribution scenario in the Indian power sector.¹⁸ However, the government introduced the concept of open access¹⁹, under the electricity act for the very first time and till now it has been a big problem in the power industry as the industrial customers still face challenges in regard to choice of suppliers due to certain restriction which have been imposed under the electricity act.²⁰ Moreover,

¹⁵ Kriti Prashar, *Challenges faced by Power Purchase Agreements*, (21 Jan 2017, 08.25 AM) <http://www.manupatrafast.com/articles/PopOpenArticle.aspx?ID=1babe18-e33d-419e-85fe-b7e20a5a557e&txtsearch=Subject:%20Power%20And%20Energy>

¹⁶ *Report on Energy Demand in India*, CENTRAL ELECTRICITY AUTHORITY (2012)

¹⁷ *Report on Strengthening the Institutional Framework of India Power Sector*, MINISTRY OF POWER, GOVERNMENT OF INDIA (2014)

¹⁸ Planning Commission Report on Distribution Models and Shungulu Committee, PLANNING COMMISSION, GOVERNMENT OF INDIA (2010)

¹⁹ Definition of open access, PLANNING COMMISSION, (23 Jan 2017, 09.45 AM),

<http://planningcommission.nic.in/reports/genrep/index.php?repts=hlpf.html>

²⁰ Electricity Act, 2003, No. 36, Acts of Parliament, 2003 (India), sec 11, 108 [“**Electricity Act**”]

Section 11 and 108 of Electricity Act, 2003 has been invoked by a lot of states, Section 11 states about the Directions to the Generating Companies and on the other hand Section 108 states about Directions by State Government.

moving forward now when we come to the hydro projects they are facing a lot of problems in getting approval from the concerned authorities in setting up their power plants, such as environmental clearances, land acquisition, shortage of skilled manpower, poor infrastructure etc.

But, under the new electricity act, the main purpose or object of the act is to increase competition in the power sector, so it is moving towards more of competitive market approach. So, in this regard three policies have been formulated, firstly, establishment of a power exchange, which functions like an electricity market which helps in settlement of other projects concerned with power sector.²¹ Secondly, tariff based biddings have been introduced in all the areas of distribution, transmission and generation where the projects are issued on the basis of sound financial stability.²² Lastly, the concept of open access has been proposed in the transmission and as well as distribution sector. So, it can be concluded by stating that at present the power sector is moving from a production based approach towards market driven based approach, which will ultimately benefit the consumers in the long run.

However, the present scenario in the power sector if we compare it to last two decades, is possibly the most consolidated one as it makes the laws relating to distribution, transmission, trading and generation more stringent, which helps in the overall growth and development of the power industry

Further, it also looks to enhance and protect the interests of the consumers and supply of electricity in all the areas and also creation of rationalization of electricity tariff and further creating transparent policies concerning tariffs. Also, it looks into the promotion of environmental friendly policies and that the power sector or industries engages in generation, distribution etc., do not hamper the environment as far as possible.

On the other hand, under the present electricity act also there have been numerous instances where there has been deficiency in services by the distribution companies as a result of which the consumer had to suffer, again instances of theft of electricity have been reported

²¹ National Electricity Policy, MINISTRY OF POWER, GOVERNMENT OF INDIA, (25 Jan 2017, 11.25 AM), http://www.cea.nic.in/reports/committee/nep/nep_dec.pdf

²² *Terms and Conditions of Tariff Regulations*, CENTRAL ELECTRICITY REGULATORY COMMISSION http://www.cercind.gov.in/2013/draft_reg/FO_AP_2013.pdf.

on number of occasions, meter related grievances, damage due to short circuit etc. are being dealt by the concerned authorities for a long period now. In the case of *Shankar Sah vs. Electrical Executive Engineer*²³, the court held that the petitioner was irregular in making payment of his bills and electricity connection was restored on number of occasions by paying the bills in installments, and it stated that the concerned authority acted accordingly and no interference or plea under the consumer protection act could be entertained. In another case, *Maharashtra State Electricity Board vs. K.L. Ramani*²⁴, the petitioner was not provided electricity connection on time due to certain errors in the application form, so the court held that it was not deficiency in service and the consumer court has no jurisdiction to entertain the same, but ordered the board to provide the petitioner with electricity without any further delay.

So, it can be seen that with the passage of time, the power sector is also growing at a steady pace and all the requirements of the consumers and industries are being met out by it accordingly. As, we can see that there have been numerous litigations between the distribution companies and consumers, electricity boards and consumers, but again there has been proper mechanism which has been laid down under the electricity act to handle such conflict of interest between the consumers and other concerned authorities. Furthermore, recently only, a new concept of compensatory tariff has been evolved by the interpretation of judiciary, where the distribution companies will be paid compensation by the concerned state boards to whom the electricity was provided by the companies and the compensation was decided on the basis of change in law and force majeure clause.²⁵

It can be concluded that the India power sector is continuously growing and there have been tremendous developments which have been taking place all this time either through the enactment of any legislation by the parliament or by the active role which is played by the judiciary in interpreting and applying the concerned laws whenever there is any sort of conflict of interests which arise between distribution companies and the consumers.

²³ Shankar Sah vs. Electrical Executive Engineer, (2005) CPJ 178 NC

²⁴ Maharashtra State Electricity Board vs. K.L. Ramani ,1995 (1) CPR 334 NC

²⁵ Coastal Gujarat Power Ltd vs. Gujarat Urja Vikas Nigam Ltd & others, (2007) CERC 118, [**Adani and Tata case on Compensatory Tariff**]

1.2 Reforms in Pre-and Post-1991 Era

For the very first time the power sector reform began in Chile in the 1980s, which was followed by privatization of power sector in Afghanistan. After this the UK Electricity Act, 1989 came into being which formally dealt with the power sector reforms. Also, the World Bank and International Monetary Fund (IMF) created certain loan schemes which were provided to the developing countries and this set the base for the development of infrastructure in these countries. But, in India the power sector came into force only in the year 1992 despite there being opposition to “power reforms in general and privatization of state electricity boards” in particular were the two major issues.

Further, there have been many instances where the decision regarding privatization of power sector has been raised and after learning from the other Asian countries and European countries, India had passed many policies in relation to make privatization of power sector in the country. The power sector reforms have been done with keeping in mind the liberalization process which was followed for enhancing the economy of the country. As of now, generation and distribution by private players is being promoted in almost every state in India and government or the concerned authorities are providing adequate amounts of subsidy for the same. There were certain other factors which led to the power sector reforms in India, such as new economic policy 1991; resource crunch; demand for power increasing and not adequate supply available; SEBs running into losses etc. So, at the end of the seventh five-year plan, it was realized that the government alone won't be able to fulfil the demand of electricity and it allowed the entry of power players in the power industry, so that the demand and supply gap is maintained adequately.

So, to speed up the power sector reforms, the old laws were amended as they prohibited entry of private players in the power industry in the sectors of generation, distribution and transmission etc. Therefore, the Indian Electricity Act, 1910 and the India Electricity (Supply) Act, 1948 was replaced by the New Power Policy of 1992, and on the other hand the Government of Orissa became the first state in India who introduced the power sector reforms in conformity with the central government. Further, moving on the government of India, introduced Mega Power Policy, 1995 to “bridge the gap between demand and supply” on urgent basis. Again, in the year 1998 an ordinance was passed related to electricity

regulation commission and certain states like Haryana, Karnataka and Gujarat took active part in it to remove the restrictions imposed on the entry of private players in the electricity business.

The Indian Electricity Act, 1910²⁶ was regulating the licensing procedures which were necessary in the power sector for distribution, transmission and generation of electricity. Secondly, the Indian Electricity (Supply) Act, 1948²⁷ was amended in the year 1991 and it allowed the participation of private players in the power sector in order to meet the increasing demand and to protect the SEBs from becoming exhaustive. Further, the reforms which took place in the year 1992, it laid down certain guidelines which had to be followed by the private players while they were indulged in the activities related to power sector. Moving on, in the year 1995, the state of Orissa for the first-time initiated reforms which should be made to the power sector and it was termed as Orissa Reform Model,²⁸ and it had helped in proper functioning of the power sector and SEBs were also functioning smoothly without suffering any losses. After, the Orissa Model many states took the initiative which lead to unbundling of SEBs and introduction of private players. Further, in the year 1998, Electricity Regulatory Commission Act was formed under which Central Electricity Regulatory Commission (CERC)²⁹ was formed for the first time and the act also made necessary that all the States shall have one State Electricity Regulatory Board (SERC).³⁰

However, in the year 2001, the Government of India passed a bill which would replace “all the three existing acts namely, Indian Electricity Act, 1910, Indian Electricity (Supply) Act, 1948 and Electricity Regulatory Commission Act, 1998”. The bill sort for comments from all the concerned states and it stated that National Electricity Policy would be introduced so that the power sector develops at a rapid pace, so all the hurdles were removed from the 2001 bill and therefore the Electricity Act, 2003 came into being. So, to

²⁶ Indian Electricity Act, 1910, No. 09, Acts of Parliament, 1910 (India).

²⁷ Indian Electricity (Supply) Act, 1948, No. 54, Acts of Parliament, 1948 (India).

²⁸ Sumit Kumar, *World Bank Orissa Model- Indian Power Sector*, INDIAN POWER SECTOR.COM (12 Mar 2017, 07:46 pm), <http://indianpowersector.com/home/2011/04/world-bank-orissa-model>

²⁹ Electricity Act, 2003, sec. 72

³⁰ Electricity Act, 2003, sec. 86

improve the power sector reforms in India, certain policies were formulated from time to time to attract the private financial investments in the sector.

Now, moving on to the pre-and post-reforms made in the power sector due to the new economic policy and certain other initiatives taken by the government from time to time.³¹

So, in order to compare the pre-and post-reforms certain factors such as consumption of electricity by different means, T&D losses, electricity generated from different sources and total installed capacity need to be kept in mind for reaching a desirable result. Firstly, the most important factor is the consumption of electricity by different means such as railways, industrial, agricultural and domestic. So, in the present scenario it shows that the consumption of electricity by industries has declined, whereas on the hand the consumption by the agriculture sector has shown a certain amount of increase in the consumption level.

Secondly, moving on to the second factor which is transmission and distribution losses which helps in determining the efficiency in the power sector.³² As, according to the international standards the T&D losses are nine percent, whereas in India it becomes a big challenge for SEBs and also during the period of reform these losses have increased immensely. Also, there have been many steps which have been taken by the government to reduce the losses, as it is one the most serious issue which leads to the hampering of the reforms in the power sector. Thirdly, electricity generated from different sources such as thermal, hydro, nuclear, railway etc., and it can be seen that the government in the early stages was more depended on thermal source due to its low generation period and easy availability of coal. Also, the electricity generated from private sector has improved marginally despite the priority which was given to the private sector during the early reform period.

So, the main objective of the earlier power sector reforms was to create more power generation strength and reduction of transmission and distribution losses as far as possible. Further, the participation of private players in the power sector has to be reviewed constantly after the 1992 and it is generally believed that the private sector will play an

³¹ Sanjay Tupe, *The Performance of Indian Power Sector for Pre-and Post -Reforms Period* (1980)

³² M S Bhalla, *Transmission and Distribution Losses in India in Proceedings of the National Conference on Regulation in Infrastructure Services: progress and way forward* (2000) (05 Mar 2017, 07:25 PM), http://www.teriin.org/index.php?option=com_publication&task=details&sid=355

important role in the coming years. Further, power sector has been changing since 1992, due to certain restructuring which has taken place in the power sector. Also, with the formation of CERC there have been certain issues which have been taken up such as elimination of theft of power, mandatory auditing of working of private players from time to time to keep a check on the working of the industries engaged in the power sector. There have been numerous changes over the past few years in the power sector and we can expect certain more changes in the near future due to the rapid growth in technology and advancement which has been the key factor for the reforms which have taken place over last several years.

1.3 OPERATIONAL AND REGULATORY FRAMEWORK

The Electricity Act, 2003 is an umbrella legislation that covers regulation for all stages from electricity generation to distribution including tariff determination with several enabling provisions. The statute aims to regulate “generation, transmission, distribution, trading and use of electricity”. The object of the Act also ensures development of electricity industry and promotion of competition in the Electricity Market. The Act also covers provisions for protection of interest of consumers and to regulate supply of electricity to all areas, also monitoring rationalization of electricity tariff and ensuring transparent policies regarding subsidies and other functions relating to “promotion of efficient and environmentally benign policies”.

The Act also has imbibed in provisions for constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal.

a) General: The Government of India (GoI) is responsible for formulation of “National Electricity Policy and Tariff Policy, in consultation with the State Governments for developing the power system based on optimal utilization of resources such as coal, natural gas, nuclear, hydro, and renewable sources of energy.³³ The Central Electricity Authority (CEA) shall prepare a National Electricity Plan in accordance with the National Electricity Policy and notify such Plan every 5 years.³⁴ GoI shall, after consultation with the State Governments, prepare a national policy, permitting stand-alone systems (including those based on renewable sources of energy) for rural areas.³⁵ GoI shall also formulate a national policy, in consultation with the State Governments and the State Commissions (SERCs), for rural electrification and for bulk purchase of power and management” of local distribution in rural areas through Panchayati Raj Institutions, co-operative societies, and NGOs.³⁶

b) Generation: Any “generating company may establish, operate, and maintain a generating station, without obtaining a license under this Act, provided it complies with the technical

³³ Electricity Act, 2003, sec 3(1)

³⁴ Electricity Act, 2003, sec 3(4)

³⁵ Electricity Act, 2003, sec 4

³⁶ Electricity Act, 2003, sec 5

standards regarding connectivity with the grid.³⁷ A person may construct, operate, and maintain a captive generating plant and dedicated transmission lines. Such persons shall have right to open access to the transmission facilities”, for carrying electricity from the captive plant to the destination of their own use.³⁸

c) Distribution and transmission of electricity: The State Electricity Regulatory Commission (SERC) shall introduce open access in “such phases and subject to such conditions (including the cross subsidies and other operational constraints) as may be specified within one year of the appointed date by it.³⁹ SERC shall specify extent of open access in successive phases and determine the wheeling charges. It is responsible for deciding the surcharge in addition to the wheeling charges to meet” current level of cross-subsidy (e.g. the industrial consumer cross-subsidizes the domestic ones). It also specifies the manner in which such surcharge and cross-subsidies is progressively reduced and eliminated Such surcharge shall not be levied in case of electricity being carried from captive power plant to the destination of own use.

d) Determination of Tariff: SERC shall be guided in “specifying the terms and conditions for determination of tariff by the following.⁴⁰ It is also responsible for promotion of co-generation and generation of electricity from renewable sources of energy. It is also responsible for regulation of the National Electricity Policy and tariff policy”. The tariff principles and methodologies are specified by the Central Electricity Regulatory Commission (CERC) under regulations.

[A] **Central Electricity Regulatory Commission**

CERC is a statutory body functioning under sec - 76 of the Electricity Act 2003

“As entrusted by the Electricity Act, 2003 the Commission has the responsibility to discharge the following functions”:

Mandatory Functions: -

³⁷ Electricity Act, 2003, sec 7

³⁸ Electricity Act, 2003, sec 9 (1&2)

³⁹ Electricity Act, 2003, sec 42 (1 & 2)

⁴⁰ Electricity Act, 2003, sec 61

- a) “Regulation of the tariff of generating companies which are owned or controlled by the Central Government and in cases where the generating companies have entered into or have a scheme for generation and sale of electricity in more than one state”;
- b) Regulation of and determination of tariff for inter-State transmission of electricity;
- c) Issuance of licenses to persons engaged as transmission licensee and electricity trader for inter-State operations;
- d) Improving access to information for stakeholders;
- e) Adjudication of disputes wherein the parties are Generation companies or transmission licensee with respect to disputes in relation to determination of tariff and also referring the matter for arbitration;
- f) Leaving fees as for any purpose mentioned under the Act;
- g) Specification of Grid Code in pursuance to Grid Standards and further specification and enforcement of the standards in regard to the quality, continuity and reliability of service by the licensees;
- h) Fixing of the trading margin in the inter-State trading of electricity, when, necessary;
- i) Discharging any other function under the Act.

Advisory Functions: -

- a) Formulation of National Electricity Policy and Tariff Policy;
- b) Promotion of competition, efficiency and economy in the activities of the electricity industry;
- c) “Promotion of investment in electricity industry”;
- d) any other matter referred to the Central Commission by the Central Government.

[B] **State Electricity Regulatory Commission**

The SERCs, under the provisions of Sec.86 of the Electricity Act, 2003, shall discharge the following functions: -

- a) Determination of tariff for generation, supply, transmission and wheeling of electricity within the State. However, in cases where open access is permitted to certain category of consumers, the commission is to determine the wheeling charges and surcharges only for such consumers;
- b) Regulation of purchase and procurement process of Electricity by distribution licensees including the monitoring of price at which such electricity is to be procured from its sources for distribution and supply within the State;
- c) Facilitation of transmission and wheeling of electricity within the state (Intra-state transmission and wheeling);
- d) Issuance of licenses to persons applying for engaging in as transmission or distribution licensees and electricity traders.
- e) Promotion of co-generation, and generation of electricity from renewable sources of energy as by providing suitable measures for connectivity with the grid and further sale of electricity to any person.
- f) Specification for purchase of a certain percentage of the total consumption electricity in the area of distribution, from renewable sources;
- g) Adjudication of disputes wherein the parties are licensees and generating companies and further, reference of such matters for arbitration;
- h) Levying fee as for the purposes of the Act;
- i) Specification of the State Grid Code in pursuance to the Grid Code as specified by the Central Electricity Regulatory Commission and further specification and enforcement of the standards in regard to the quality, continuity and reliability of service by the licensees;
- j) Fixing of the trading margin in the intra-State trading of electricity, when, necessary;
- k) Discharging any other function under the Act.

The State Commission shall advise the State Government on all or any of the following matters, namely: -

- a) promotion of competition, efficiency and economy in activities of the electricity industry.
- b) promotion of investment in electricity industry
- c) reorganization and restructuring of electricity industry in the State;
- d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.

[C] **Central Electricity Authority**

CEA is a statutory body functioning under sec – 70⁴¹ of the Electricity Act 2003 and functions are mentioned in sec 76.⁴² The Act provides for numerous functions for Authority to perform as herein under:

- a) Advising the Central Government on matters pertaining to National Electricity Policy and formulation of plans for development of the electricity system and co-coordinating the activities of the planning agencies for the best utilization of resources for sub-serving the interests of the economy of the country and further, providing reliable and affordable electricity to all consumers;
- b) Specification of technical standards for the construction of electrical plants and lines and its connectivity to the grid;
- c) Specification of the safety conditions for construction, operation and maintenance of electrical plants and lines and Grid Standards for Operation and maintenance of transmission lines.
- d) Specification of the conditions and requirements for installation of meters for the transmission and supply of electricity;
- e) Promotion and assistance for timely completion of certain schemes and projects for developing, improving and strengthening the electricity system;

⁴¹ Electricity Act, 2003, sec. 70

⁴² Electricity Act, 2003, sec. 76

- f) Promotion of measures for enhancing skills of persons involved in the electricity industry;
- g) Advising the Central Government wherein its advice is sought or making recommendation to the Government in areas and matters wherein the authority is of the view that such recommendation would help in improvement of the generation, transmission, distribution, trading and utilization of electricity;
- h) Collecting and recording the data with respect to the generation, transmission, distribution, trading, and utilization of electricity and further carrying out studies relating to cost, competitiveness and ancillary matters;
- i) Making available information to public from time to time as to be provided under the Act, and further providing for publication of reports and investigations;
- j) Promotion of research in matters relating to or affecting the generation, transmission, distribution and trading of electricity;
- k) Carrying out, or causing to be carry out, investigations for any purposes relating to generation/ transmission or distribution of electricity;
- l) Advising any State Government or licensees or generating companies on matters that would enable them for better operation and maintenance of the electricity system which are under the ownership or control of such State Government, licensees or generating companies.
- m) Advising the appropriate government (Central/State) and the Appropriate Commission(Central/State) on all technical matters which relate to generation, transmission and distribution of electricity; and
- n) Discharging any other such functions under this Act

CHAPTER II: TARIFF REGULATORY REGIME

Generally, “tariff setting is primary instrument of economic regulation” and it provides nature of demand and supply. Also, “considerable portion of the reform effort is expended on rationalizing tariffs, often disproportionality so”.⁴³ Under the Indian Electricity Act, 2003 there has been proper mechanism which has been provided for determination of tariff⁴⁴ and it also states the process of competitive bidding under which the distribution companies bid and the process is completely fair and transparent.⁴⁵ Moreover, there has been a tariff policy for the same, and the electricity act empowers the central government to formulate the tariff policy.⁴⁶ Also, the central government is empowered to review the said tariff policy from time to time and can make the necessary changes as per the requirement.⁴⁷

Further, the act states that the CERC and SERC shall be guided by the tariff policy in determination of tariff and framing of regulations under section 61 of the act. Also, it states that the regulatory commissions shall be guided by the principles and methodologies enumerated by central commission for determination of tariff.⁴⁸ However, the tariff policy evolved in consultation with Central Electricity Authority and State Electricity Boards in taking the advice of Central Electricity Regulatory Commission.

Furthermore, certain objectives of the National Tariff Policy were, firstly, ensure availability of electricity to all at competitive prices. This has been the most essential objective of the tariff policy, that electricity should be available to each household at minimized rates. Secondly, it looks into financial viability of the sector and to attract more investments from private players and this is possible only if certain number of subsidies or benefits are provided to the private players who are engaged in the power industry. Thirdly, it sees that proper mechanism of transparency is maintained and that there is minimum risk

⁴³ Sanjeev S Ahluwalia., *Tariff Reform in India; A review of directions and issues in Transition to a Liberalized Environment*, TERI (1999).

⁴⁴ Electricity Act, 2003, sec.61

⁴⁵ Electricity Act, 2003, sec. 63

⁴⁶ Electricity Act, 2003, sec. 3(1)

⁴⁷ Electricity Act, 2003, sec. 3(3)

⁴⁸ *Id.*

relating to regulatory norms. Lastly, it tries to promote competition and also improve the quality of supply.⁴⁹

Moreover, recently only there has been amendment made to the National Tariff Policy⁵⁰ and certain new things have been enumerated in it, like the policy envisages 24*7 electricity supply by the year 2022. Secondly, electricity will be provided to remote village through the help of micro grids. Further, procurement of power from waste to energy plants has been made compulsory. Also, the new amendment includes certain aspects relating to renewable energy, such as Renewable Purchase Obligation, it means an obligation imposed by law on certain entities to either buy electricity generated by specified green sources.⁵¹ So, it can be seen that the new amendments which have been added makes a strong pitch for promotion of clean energy and the new policy also states that the CERC and SERC shall be guided by the tariff policy while they are discharging their functions under Section 61 of the Electricity Act.

Moreover, the procedure for determination of tariff has been stated under Section 62 of the Electricity Act⁵² and the appropriate commission shall determine the tariff in accordance with these provisions. Also, it is stated that the commission shall not show any preference to any consumer of electricity and shall decide it independently. But, again in certain cases tariff differentiation can be made in the following situations, i.e. depending on consumers load factor, power factor, voltage and total consumption; time of supply; geographical position of any area and the nature and purpose of supply. Also, it stated that no amendment should be made to the tariff or any part of the tariff more frequently than once in any financial year.

Further, now I will discuss the calculation of Tariff Proceedings through a case study. For instance, Karnataka Electricity Commission has specified certain regulations which contains the procedure for tariff proceedings. So, every licensee who is interested for the same shall provide the commission full details of the calculation of ERC (expected revenue

⁴⁹ National Tariff Policy, MINISTRY OF POWER, GOVERNMENT OF INDIA ,2006 (10 Mar 2016, 8:42pm), <http://www.powermin.gov.in>

⁵⁰ National Tariff Policy Amendment, 2016

⁵¹ To promote renewable energy, it is proposed to increase solar RPO to 8% by the year 2022.

⁵² Electricity Act, 2003, sec.62

from charges) not later than three months before the commencement of any financial year. The next step would be that the commission would scrutinize the forms which have been filled by the concerned licensee and the commission can further seek for any further clarifications on the same from the licensee. The ERC shall contain particulars related to, statement of current tariffs; statement of amendments proposed; analysis of the effect of the proposed tariff changes. Now, the next step would be publishing of all the details by the licensee. So, once the concerned authority has approved the tariff mechanism, it will ask the licensee to publish it in two national newspapers and invite comments from the general public within a period of 15 days. So, after the comments have been received and if the commission feels that certain changes are required, it will direct the licensee to make the same done within the time specified and finally the commission shall pass the tariff order within 120 days of filing of the ERC.

As per the case study discussed above, this procedure is followed only in the state of Karnataka and it varies from state to state, but the principles which have been laid down under Section 61⁵³, 62 and 63⁵⁴ cannot be ignored, and the appropriate authority or commission has to keep in mind these statutory provisions while framing rules for deciding the appropriate tariff. So, the calculation of tariff determination is of utmost importance in the power sector, as it is the sole purposes on which the distribution companies will be charging for supply of electricity from the consumers and it should be the duty of the

⁵³Electricity Act,2003, sec.61. "Section 61 states about Tariff Regulations. The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely: -

- (a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
- (b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;
- (c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;
- (d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
- (e) the principles rewarding efficiency in performance;
- (f) multi- year tariff principles;
- (g) that the tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner specified by the Appropriate Commission;
- (h) the promotion of co-generation and generation of electricity from renewable sources of energy;
- (i) the National Electricity Policy and tariff policy;

Provided that the terms and conditions for determination of tariff under the Electricity (Supply) Act, 1948, the Electricity Regulatory Commission Act, 1998 and the enactments specified in the Schedule as they stood immediately before the appointed date, shall continue to apply for a period of one year or until the terms and conditions for tariff are specified under this section, whichever is earlier".

⁵⁴Electricity Act,2003, sec.63. "states about Determination of Tariff by bidding process, "Notwithstanding anything contained in section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government."

commission of the appropriate authority that the tariff is determined in accordance with the provisions of law because the ultimate suffer would be the consumers, as all the burden would be shifted on them, if the concerned authorities do not look into the tariff determination as per the settled legal position under the electricity act.

2.1 Scenario for Evolution of Compensatory Tariff

The term compensatory has not been defined anywhere under the electricity act or for that matter under any legislation pertaining to power sector. The term compensatory tariff recently came into light in the case of Adani and Tata where the companies had approached the concerned tribunal and the tribunal made an order of providing compensatory tariff to the companies⁵⁵. In general parlance, the term compensatory tariff could be understood, as to compensate for the losses which the companies have suffered during the course of generation, transmission and distribution of electricity. So, in the case of Adani also, the company had entered into an agreement with a company of Indonesia for procuring coal from them, but after sometime the import prices rose due to change in law in Indonesia, as a result of which Adani had to pay more cost for the import of coal from Indonesia.⁵⁶ As, a result of which Adani approached the CERC for obtaining certain relief for the same, as the act was beyond their control and they termed it as force majeure. After, hearing the parties at length, CERC ordered that compensatory tariff should be paid to the concerned companies as they were suffering with huge losses and adequate amount of compensation needs to be paid by the concerned SEBs of Gujarat, Rajasthan, Haryana etc.

Basically, the concept of compensatory tariff never came into light before the issue was raised by the distribution companies of Adani and Tata, and very rightly the CERC ordered in their favor where it allowed that the compensation should be provided to the companies as they have been suffering huge losses because of change in law in Indonesia and also that the act was beyond the control of the companies.

The main issue was that various Distribution Companies through competitive bidding procured power using these bid documents and winning bidders included Adani and Tata Power. As, a result of which long-term PPA were executed between these power producers and the Distribution Companies. Also, the bidders premised their bids on the basis of mix of domestic and Indonesian coal in their power plants. However, after a certain period of

⁵⁵ Debopriya Mondal, *Major Relief for Tata and Adani in Compensatory Tariff Case*, ENERGY WORLD (12 Mar 2017, 8:54pm), <http://energy.economictimes.indiatimes.com/news/power/major-relief-for-tata-power-adani-in-compensatory-tariff-case/55856283>.

⁵⁶ Kriti Prashar, *Challenges faced by Power Purchase Agreements*, MANUPATRA, 10 Mar 2017, 9:00pm), <http://www.manupatrafast.com/articles/PopOpenArticle.aspx?ID=1babe18-e33d-419e-85fe b7e20a5a557e&txtsearch=Subject:%20Power%20And%20Energy>

time, the Indonesian government changed their domestic coal policy, as a result of which the earlier coal prices were replaced by the new ones, which caused great amount of problem for the companies engaged in the generation of power, as the main source i.e. the coal import had increased which caused great inconvenience was generating power at the earlier rate. As, a result of this the discoms approached the CERC for increase in the tariff structure, as they won't be able to provide the power at the earlier price which was mentioned in the tariff policy due to certain increase in the level of coal. But, the CERC held that there was as such no provision under the PPA, which allowed the discoms to be compensated the pass over costs or any unexpected rise in any change in price at international level. On, the other hand, looking at the amount of losses the companies were facing due to change in the coal prices, the CERC allowed the plea of the generating companies and compensatory tariff was provided to them. As, a result of this an appeal was made to the APTEL by the discoms to further adjudicate upon the matter.

The APTEL passed the order in this matter in which it prevented the Central Electricity Regulatory Commission (CERC) to use its discretionary powers related to the issue of compensatory tariff and also related to the sanctity of the PPA⁵⁷. Further, in the judgment passed by the tribunal, it has been very clearly stated that what actually should be the role of regulatory commissions in the electricity the sector or for that matter in any other sector where a mechanism of such sort has been framed. Moreover, in the said judgment an observation was made that the sole objective of the electricity act is not only to protect the consumers, but also to provide electricity at reasonable rates, so that the sector is self-sufficient and that there is no demand for any sort of subsidies by the distribution companies, but again there has to be constant check on the power sector by the concerned authorities, so that they work in accordance with the regulations which are set under the act or in accordance with the rules framed by the commission from time to time.

Further, the judgment will help the concerned authorities to frame certain guidelines related to the competitive bidding regime in which certain rewards and risks can be covered and the distribution company can be saved from the hardships. But, again on the hand, when

⁵⁷ APTEL set asides CERC Compensatory Tariff Order, BUSINESS STANDARD, (10 Mar 2017, 09.35 PM) http://www.business-standard.com/article/pti-stories/aptel-sets-aside-cerc-compensatory-tariff-order-116040700923_1.html

any distribution company is bidding to produce or distribute electricity, it is presumed that there are certain risks which are always there and the company is expected to be aware of the same and the company cannot take or the tribunals should not always entertain the defense of *Force Majeure*. As, in the present case which is being discussed, the main issue or the conflict was change in price of coal, which was being imported from Indonesia by the distribution companies. Further, due to change in the domestic law or internal policies of Indonesia, the distribution companies had to suffer, as the prices which they being asked to pay under the new law was much more than the previous one, and also, they had already set the tariff for the consumers, and it was not possible for the companies to produce electricity without the imported coal, as a result they approached the commission to seek redressal. The current scenario or the main objective of the government is to provide electricity to the consumer at the cheapest, but on the other hand it completely ignores the prices which are set or for that matter quoted by the companies who are bidding, whether such prices are actually sustainable in practicality or not should also be seen by the government. Further, as everyone knows that the distribution companies or for that matter any organization which is doing business, the sole purpose is to derive maximum profit from that and similarly by quoting less price during the bidding the companies played a smart move and they even got compensated for the same. But, after this incident the government addressed this issue where it mentioned that fuel costs need to be passed to the power purchase only and that cost may be stated by the bidders at the time of their bids.⁵⁸

So, the government has to keep in mind that, though competitive bidding will guarantee low tariff, but it won't guarantee the completion of the pending projects or supply of power for a long period of time.

⁵⁸ *Committee Report for CERC on Compensatory Tariff*, CENTRAL ELECTRICITY REGULATORY COMMISSION, (2013) (10 Mar 2017, 09:20 PM), http://www.cercind.gov.in/2013/Reports/COMREP_CGPL.pdf

2.2 Concern of Stakeholders

As, with the passage of time India has witnessed great economic growth over last few years due to increase in the amount of investments across industries after liberalization. Further, high level of economic activities has put certain amount of strain due to large scale investments in the core areas of the economy. Also, the Power sector is at a critical juncture in the present scenario with higher capacity addition required to sustain the economic growth.

Moreover, India witnessed remarkable progress in the telecommunication space with full privatization in place and also in other infrastructure segments like roads, ports and electricity lacked similar progress due to a variety of bottlenecks. On the other hand, the Electricity Act, 2003 laid the foundation for the framework for rapid development of the Power sector in India, which has further attracted significant amount of investments, certain obstacles continue to remain even after so many years of the enactment of this legislation.⁵⁹

In general parlance, the term stakeholders mean any person or group of person who have invested certain amount of money in any project or business idea. In the power sector, the amount of money involved is quite high and again the amount of risk which is involved is of great concern. In such a scenario, if something goes wrong or certain act which is beyond the control of the concerned authority or management, then the main question which arises that who shall be liable or who will pay back the stakeholders, who have invested their hard-earned money in the business, whereas on the other hand, the company takes the defense of things beyond their control, then in such scenarios the ultimate sufferer would be the investors only or the consumers who would be affected due to the shutting down of the company. For, instance, the case which has been discussed above also, the distributing companies were importing the coal from Indonesia for producing electricity, but after some time due change in certain policies in the state of Indonesia, the prices of coal increased, as a result of which importing of coal from Indonesia increased.

⁵⁹ *Changing Rules of Indian Power Sector: Empowering the Economy*, PRICEWATERHOUSECOOPERS, (07 Mar 2017, 05:40 PM), <https://www.pwc.in/assets/pdfs/publications/2015/changing-rules-of-indian-power-sector-empowering-the-economy.pdf>

Now, the distribution companies were taking the defense of change in domestic law in the state of Indonesia, and also the defense of force majeure and they were seeking compensation from the state electricity boards for the excess money which they have paid due to change in coal prices. Similarly, the SEBs were stating that they are not bound to pay any sort of compensation to the distribution companies and they suggested that the companies could import lesser coal from Indonesia and they can blend it with Indian coal, and the production of electricity could be made at the earlier prices or the rates which were already set at the starting. But, the distribution companies did not agree to the scheme or suggestion made by the SEBs and again insisted that they should be paid compensation as they are running into huge losses. As, a result of all this tension, the stakeholders main concern was that the distribution companies should be a going concern and it should not be shut down.

2.3 Problems with the Current Tariff Regime

Generally, Tariff can be defined as or can be understood as a price structure which the consumer has to pay for the amount of consumption of electricity. For example, Mr. X wants to travel by flight from Delhi to Dehradun, so he would buy a ticket for the same and the cost which will be spent on buying the ticket can be termed as tariff. Further, there are two types of tariff i.e. fixed tariff and variable tariff. Fixed tariff can be defined as financing costs which are there such as interest, depreciation etc., and on the other hand variable tariff can be termed as any cost which related to operation and management, such as fuel, tax, surcharge etc.

Furthermore, after the formation of the electricity sector, which was part of the economic liberalization and also the creation of Central and State Regulatory Commissions has helped in making the sector more transparent and accountable. Also, the concerned authorities have made a platform for the public, thorough which all the necessary information relating to determination of tariff or any other regulatory process for that matter will be provided and anyone can question the validity of any order made by the concerned authority or the appropriate commission. So, basically it can be seen that, now all the concerned person whether they are stakeholders or for that matter even consumers have equal involvement in the tariff determination process. The regulatory bodies i.e. Central and State Regulatory Commissions have to strictly follow the procedure which has been enumerated under the said act and even a slight deviation from it can cause certain amount of penalty to the concerned authorities.

[A] History of Tariff in India

Earlier, prior to the year 1992, Single part tariff structure was followed for the determination of tariff and such tariff was calculated in which both fixed and variable cost was included. But, since 1992, the State Electricity Boards for their respective states had been given the responsibility of fixing the tariff on the basis of single or two cost plus

approach. On the other hand, for central units and Independent Power Producers (IPP), two-part cost with performance based incentive was set up.⁶⁰

The committee had stated that if fixed cost would be paid to the generating stations, then there would be no motivation for generating more efficiently and effectively, so by the end of 1992 the Government of India adopted the two-part tariff formula. But, presently, after the enactment of the Indian Electricity Act, 2003 the technique which is followed is Availability Based Tariff (ABT) with performance based incentives and also introducing the concept of competitive bidding for determination of tariff.

[B] **Legal Provisions Relating to Tariff**

Tariff is determined in accordance with the provisions enumerated in the Electricity Act, 2003 and also by the Tariff Policy which was notified by the Government of India and also recently there have certain amendments which have been made in the Tariff policy. So, in case of generating station is within a particular state then, the concerned State Electricity Regulatory Commission will determine the tariff, whereas if the generating station involves two or more states then the appropriate commission for the determination of tariff would be the Central Electricity Regulatory Commission.

Further, a proper mechanism has been stated under the Electricity Act for the determination of tariff. As Section 61⁶¹ of the Electricity Act defines certain terms and conditions for the tariff determination and also lay down certain guidelines which need to be kept in mind by the appropriate commission. The following are some of the guidelines which have been stated under the act:

- The principles and methodologies which have been listed by the Central Government need to be followed;
- Certain factors such as promotion of competition, transparency and optimum utilization of the resources need to be kept in mind while framing or determine the tariff and

⁶⁰ K.P. Rao Committee Report on Policy for Captive and Co-generation Plants, (04 Mar 2017, 11:20 AM), <http://powermin.nic.in/en/content/policy-captive-and-co-generation-plants>

⁶¹ Electricity Act, 2003, sec. 61

- Multiyear tariff principle

Furthermore, Section 62 of the Electricity Act states about the procedure which has to be followed by the appropriate commission for the determination of tariff. Also, the appropriate commission has been laid down with certain powers where they can lay down certain rules and regulations for determination of tariff, but those rules and regulations should in no way override the provision itself, otherwise the whole objective of the statutory provision would be defeated. Further, the appropriate commission shall not be allowed to show any sort of preference towards any particular class of consumers, but in certain circumstances tariff determination can be made, such as:

- Consumer's load factor;
- The time at which supply has to be made and
- Geographical position

[C] **Tariff Policy**

As, stated earlier, that Government of India in the year, 2006 notified the Tariff Policy⁶² for the betterment in the regulatory procedure for the determination of tariff. Certain key objectives of the Tariff Policy are to:

- To ensure that electricity is available to consumer at all times and at competitive rates;
- Ensuring that the sector attracts more and more amount of investments;
- To promote transparency and competition in the sector at all times and
- To ensure that the quality of supply doesn't gets affected by any means.
- Ensure availability of electricity to consumers are reasonable and competitive rates

⁶² National Tariff Policy, 2006 and recently certain amendments have been made in the policy (National Tariff (Amendment) Policy, 2016.

[D] **Tariff Proceedings**

Now, by way of case study I will discussing the tariff proceedings which take place in the state of Karnataka and these proceedings⁶³ differ for all states by following the guidelines which have been framed in the parent act i.e. Electricity Act, 2003. So, the State of Karnataka had enacted Tariff regulations which contained the procedure which shall be followed for the tariff proceedings.

The first and the foremost step is that the licensee shall provide all the necessary details to the Commission and the calculations made so that Expected Revenue from Charges can be calculated. The next step would be to provide the information regarding the investments which the licensee is planning to make and it should be duly signed and verified. Also, the Commission can ask the licensee to provide with certain other details which it may feel are necessary and the licensee is bound to submit the said details within the stipulated time period. Further, the ERC which shall be submitted by the licensee shall contain the following details:

- A statement in which the current tariff is mentioned and also the amendments which shall be made in the existing charges;
- A statement of the proposed amendments by the licensee;
- The cost at which service would be provided to each class of consumers;
- A statement related to any kind of subsidies which are being offered by the State Government to any particular class of consumers;
- To submit a report which shall show the analysis of the proposed tariff; and
- A statement related to any cross subsidy which should be provided.

After all these requirements are fulfilled by the appropriate authority shall ask the licensee to summarize the details and publish it in such format as the commission deems fit. The licensee following the instructions, shall publish the relevant details in two national daily newspapers. Further, the advertisement given by the licensee shall invite the interested persons to file their objections or if any other information is sought by any concerned

⁶³ *A Consumer's Guide to Electricity Tariff Determination*, KARNATAKA GOVERNMENT, (05 Feb 2017, 07.17 PM) <http://www.karnataka.gov.in/kerc/Consumer%20Advocacy/Electricity-Tariff-Determination.pdf>

person. A time limit has to be set within which the queries by the public can be entertained and the views from the public are welcomed so that the consumers are made aware on the basis or circumstances which are kept in mind while the appropriate commission determines the tariff.

So, after all this process is done and the appropriate commission is satisfied with the same, it shall issue Tariff order within a specified period from the date of filling of Expected Revenue from Charges. The above discussed is the basic method on how tariff proceedings go on and what all has to be kept in mind, the main objective of creating a detailed and lengthy process is to promote competition and to further enhance transparency.

Now after discussing in detail the procedure which is followed in the determination of tariff, will move towards the recent developments and certain amendments which have been proposed in the tariff structure under the Indian Electricity Act, 2003 read with National Tariff Policy.⁶⁴ Further, there are different structures of tariff which are followed in the power sector for the distribution of electricity. They are:

- Simple Tariff: In such type of tariff system there is fixed rate which is set for the consummation made and also there is no discrimination on the basis of class of consumers who would be consuming electricity.
- Single Part Tariff: In such type of tariff structure, different consumers are charged at different rates.
- Two Part Tariff: In such type of tariff structure, a combination of fixed charges and variable charges is recoverable from the consumer in order to recover the cost of the electricity
- Three Part Tariff: This type of tariff consists of fixed charges, semi fixed charges and variable charges.

Further, it is proposed that the technique of Single Part Tariff with minimum charge should be followed, as it will help the consumers to understand the tariff structure more easily as compared to the present one as there is no technicality which will be involved in the single part tariff system. Also, the single part tariff can be designed in such a way

⁶⁴ National Tariff Policy, 2006.

which will even help the licensees to recover the fixed costs and this will boost the distribution companies to provide efficient services to the consumers as certain incentives are being provided to them under the single part tariff structure. Further, the grievance of the consumers shall be entertained regarding the supply of electricity and fixed charges which they have to pay for the same.⁶⁵

But, again on the other hand single part tariff structure if implemented will lead to inefficient use of electricity because of the minimum charge, there won't be any conservation of energy. Further, it may also discourage the distribution companies if their fixed cost which they have invested is not recovered. So, it won't be appropriate to make any change in the tariff structure because the Indian Power Sector is still evolving gradually and if any alteration is made to the tariff technique it might hamper the growth of the sector. As, it is evident from the discussion above also, the calculation of the tariff for electricity is done in accordance with legislation which has been enacted and there are specific provisions in the act which state about the methods of calculation, procedure which has to be followed etc., so it won't be appropriate to alter the current tariff structure.

Now, moving on to the National Tariff Policy which has been recently amended⁶⁶ and certain new reforms have been added by the way of amendment. The important objectives of the National Tariff Policy, 2006 were, firstly, ensure availability of electricity to all at competitive prices. This has been the most essential objective of the tariff policy, that electricity should be available to each household at minimized rates. Secondly, it looks into financial viability of the sector and to attract more investments from private players and this is possible only if certain number of subsidies or benefits are provided to the private players who are engaged in the power industry. Thirdly, it sees that proper mechanism of transparency is maintained and that there is minimum risk relating to regulatory norms. Lastly, it tries to promote competition and also improve the quality of supply.

⁶⁵ Tariff Order for the Financial Year 2016-17 directs the licensees to submit a proposal for Rate Schedule.

⁶⁶ National Tariff Policy (Amendment) 2016

Moreover, recently only there has been amendment made to the National Tariff Policy (Amendment), 2016⁶⁷ and certain new things have been enumerated in it, like the policy envisages 24*7 electricity supply by the year 2022. Secondly, electricity will be provided to remote village through the help of micro grids. Further, procurement of power from waste to energy plants has been made compulsory. Also, the new amendment includes certain aspects relating to renewable energy, such as Renewable Purchase Obligation, it means an obligation imposed by law on certain entities to either buy electricity generated by specified green sources.

So, it can be seen that the new amendments which have been added makes a strong pitch for promotion of clean energy because power sector industry is one of the key players in the economic development and with the pace and progress it may have an adverse impact on the environment. As, the new amendment states mostly about generation of electricity from renewable sources of energy, but time will only tell that whether this move has benefited any one or whether it has made things more complicated. Again, some of the generation companies or distribution companies may think that it will affect them or will be costlier to produce electricity from the renewable sources as compared to the non-renewable sources of energy. In the case of *West Bengal Electricity Regulatory Commission & others vs. Calcutta Electricity Supply Company*⁶⁸, the brief facts of the case are as follows, that West Bengal electricity commission determined tariff for the particular year, but the company preferred an appeal to the HC, as it was aggrieved by the said tariff order, HC allowed the appeal of the company and itself only redetermined the tariff. The commission preferred appeal to the SC, and it was held that the HC was in error while deciding the tariff as it was the duty of the commission to decide the tariff in accordance with the statutory provisions.

In the end, it can be concluded, that the power sector is still an emerging sector in India, and that all the players whether private or public sector undertakings should properly follow all the procedures, policies and other guidelines which are being formulated by

⁶⁷ *Id.*

⁶⁸ *West Bengal Electricity Regulatory Commission & others vs. Calcutta Electricity Supply Company*, (2002) 8 SCC 715

the appropriate commission from time to time, so that the progress of this sector doesn't hamper.

2.4 Increase in Tariff and Consumer Interest

The very fact is that if anything goes wrong in any sector or industry (not specifically being Power Sector), the ultimate sufferer would be the consumer only. For instance, a company “X” was generating electricity and for the purpose of generation it was importing coal from some other country, but now due to certain internal policies of that particular prices the import of coal became expensive, as a result of which the company which was generating electricity started suffering huge loses and to cover these loses they increased the tariff or revised the tariff which they were earlier charging from the consumers. Now, the whole burden has been shifted on to the consumer, i.e. to pay more tariff for the same amount of electricity which is being consumed. Also, there are certain instances, where the consumer is being over-charged or where the electricity meter is not installed properly or there is no electricity supply even after the payment of the pending electricity bill, in such situations the only remedy which the consumer is left with is to approach to consumer forum for the deficiency in the services, whether of the State Electricity Boards or in that case any other person who is acting on its behalf.

Also, in the present case study of Adani and Tata similar sort of thing has happened where the company through bidding won the bid for generation of electricity and further to distribute it to State Electricity Boards of Gujarat and Haryana. But, after sometime both the companies approached the Central Electricity Regulatory Commission for seeking relief on the basis of change in law in the foreign country from where they were importing coal and also stating that the act being one which was beyond the control of the parties. So, in such a scenario, if the CERC did not order for adequate amount of compensation to be paid by the concerned SEBs, then all the burden for the same would have been shifted upon the consumers, as a result for which the consumer would have been the ultimate sufferer. The very basic and foremost objective of the Indian Electricity Act, 2003 is to protect the interest of the consumers and to promote competition in the power sector.⁶⁹ But, if the tribunal would have not ordered that compensatory tariff should be provided to the companies, then the companies would have recovered all such costs from the consumers

⁶⁹ *Competition in Distribution by PTC India*, PTC INDIA, (11 Feb 2017, 06.35 PM), <http://www.ptcindia.com/common/Ptchronicle-March2014.pdf>

by increasing the tariff for supplying of electricity. Also, electricity being an essential commodity in the present world, the consumer would have left with no other option, but to pay the tariff which was being charged by the concerned companies. There have been numerous case laws in which it has been seen that the SEBs have not been functioning in accordance with the laws framed under the electricity law and also there has been complaints of deficiency in service by the said authorities.

In case of *Ruby Mushroom Pvt. Ltd vs. PSEB*⁷⁰, a complaint was filed by the Petitioner regarding the installation of faulty meter by the said authorities and also that the meter was running fast and the actual consumption was way less as it was shown in the meter. So, the main issue which arose in the present case was whether there was deficiency in service on part of the electricity board for not supplying electricity to the complainant. The State Commission held that the SEB was deficient in providing services and it has left no stone unturned to harass the complainant, so the commission ordered for the replacement of the faulty meter with immediate effect. Also, in another case of *Shankar Sah vs. Electrical Executive Engineer*⁷¹, the court held that the petitioner was irregular in making payment of his bills and electricity connection was restored on number of occasions by paying the bills in installments, and it stated that the concerned authority acted accordingly and no interference or plea under the consumer protection act could be entertained.

Moreover, in *Maharashtra State Electricity Board vs. K.L. Raman*⁷², the petitioner was not provided electricity connection on time due to certain errors in the application form, so the court held that it was not deficiency in service and the consumer court has no jurisdiction to entertain the same, but ordered the board to provide the petitioner with electricity without any further delay. Also, in case of *Haryana State Electricity Board vs. Dev Raj Vinayak*⁷³, the main issue which was involved was that whether the disconnection of electricity by board on the ground of benami connections constituted deficiency in services? The commission held that the complainant had obtained three different connections to avoid payment of the line rent as he tried to split the connection into three connections. The

⁷⁰ Ruby Mushroom Pvt. Ltd vs. PSEB, (2005) CPJ 252 (NC)

⁷¹ Shankar Sah vs. Electrical Executive Engineer (2005) CPJ 178 (NC)

⁷² Maharashtra State Electricity Board vs. K.L. Raman ,1995 (1) CPR 334 NC

⁷³ Haryana State Electricity Board vs. Dev Raj Vinayak, (1995) CPJ 124 (NC)

Commission held that the connection was obtained by dubious means and the disconnection made by the concerned state electricity board was justifiable.

In case of *The Assistant Executive Engineer, Chennai vs. A.G. Swaminathan*⁷⁴, the main issue which was raised was whether cancellation of connection and non-refund of charges result in deficiency of services? The Commission ordered that the amount which was due to the complainant should be refunded back with immediate effect.

So, as discussed above there have been numerous instances of such kind where the State Electricity Board has acted vigorously and has taken action against the offenders who indulged in such illegal activities. Also, if the commission feels that the tariff has been increased by the SEBs, then it would require proper justification for the same because tariff is decided by the appropriate commission after following a lengthy process, and no one i.e. SEBs or the generation or distribution companies are allowed to alter the same without the prior approval from the concerned authority.

As, stated earlier also that increase in tariff will have a direct impact on the consumer as, he is the one who will have to bear the extra cost for the same amount of electricity consumption. It has been stated that the tariff policy should not be amended more than once in a financial year that also in special circumstances and by obtaining prior approval from the concerned authorities or appropriate commission. So, the tariff when it is being decided by the process of competitive bidding there should be certain other conditions which should be set by the concerned authorities that any change in the production in the future will not allow the companies which are engaging in the generation and distribution of electricity to take the plea of change in price of fuel or increase in the cost of importing of raw materials. If these measures are taken by the tariff committee while the tariff is being decided or formulated, it will help in resolving all such problems where the consumer is burdened and the companies into such business would be aware of the risks which are involved in such sort of business.

⁷⁴ *The Assistant Executive Engineer, Chennai vs. A.G. Swaminathan* , 2002 (3) CPR 224 (NC)

[A] *Legal Structure of Grievance under the Indian Electricity Act*

“Electricity legislations in India seem to have encompassed consumer safety and protection from the very beginning. With every new legislation, this intent has been consolidated, culminating in provisions for a relatively elaborate mechanism in the prevailing Electricity Act, 2003. The preamble of the Act clearly mentions protection of consumer interest as a key goal”.⁷⁵ Further, the Act clearly states the provision for grievance redressal at two levels. Firstly, forum will be constituted at the distribution companies level. Secondly, an Ombudsman will be appointed at the State level. Moreover, as per provision under the Electricity Act, Section 42(5)⁷⁶, distribution companies need to “establish a forum for redressal of grievances of the consumers in accordance with the guidelines as may be specified by the State Commission.” Further, for “consumers whose grievance is not redressed at this level are offered another avenue at the state level”, known as “Ombudsman to be appointed or designated by the State Commission” “However, under Section 42(6)⁷⁷, that will ‘settle’ the grievance within a definite time and in certain manner, as specified by the relevant SERC”.⁷⁸

In furtherance, the basic objective of the consumer protection is to provide adequate services to the consumer by laying down certain standards or procedures. Again, it is stated that the “licensees are liable to pay compensation to the affected persons within 90 days’ period, as determined by the SERC after providing ‘a reasonable opportunity of being heard’ to the licensees”. “The licensees are also required to furnish a performance and compliance report to the concerned SERC, at least once a year. Beyond these guiding

⁷⁵ “An Act to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalisation of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal and for matters connected therewith or incidental thereto (GoI, 2003)”.

⁷⁶ Electricity Act, 2003, sec. 42(5) states that “Every distribution licensee shall, within six months from the appointed date or date of grant of licence, whichever is earlier, establish a forum for redressal of grievances of the consumers in accordance with the guidelines as may be specified by the State Commission.”

⁷⁷ Electricity Act, 2003, sec. 42(6) states that, “Any consumer, who is aggrieved by non-redressal of his grievances under sub-section (5), may make a representation for the redressal of his grievance to an authority to be known as Ombudsman to be appointed or designated by the State Commission”.

⁷⁸ Electricity Act, 2003, sec. 42(7) states that, “The Ombudsman shall settle the grievance of the consumer within such time and in such manner as may be specified by the State Commission”.

principles, the central legislation does not provide any further course of action for institutionalization of grievance redressal and consumer protection”.

“On a positive note, considering the political economy of states differ widely across India, this provides an opportunity to the SERCs to set the rules and regulations tailored to the local context.” On the other hand, it leaves the SERCs with some degree of ambiguity, vulnerability to rent-seeking and opportunity for man oeuvres to accommodate interests, agencies and institutions. Consequently, the resulting structures and processes vary across states. “While some SERCs have been proactive and responsive to consumer demands and interests, others seem to maintain a soft corner for state owned utilities or are submissive to state governments. All the five states covered in this study have established consumer grievance redressal mechanisms for electricity consumers.” Both the Consumer Grievance Redressal Forum (CGRF) and Ombudsman are institutionalized as quasi-judicial bodies.

CHAPTER III: INTRODUCTION TO THE CASE OF TATA AND ADANI IN RELATION TO COMPENSATORY TARIFF

The concept of compensatory tariff evolved for the very first time in the Indian Power history, as there is particular definition of the term. But, in general parlance it can be understood as, compensation which is paid to the generation and distribution companies due to certain circumstances which are beyond their control. The two companies Adani and TATA through competitive bidding won the bids for the generation of electricity and entered into a long-term Power Purchasing Agreement with the States of Gujarat and Haryana.⁷⁹ On the other hand, these two companies entered into an agreement with a supplier in Indonesia for purchase of coal. So, basically these two companies were importing coal from Indonesia for generation of electricity. But, in the year 2010, there were certain changes in the internal or domestic laws of Indonesia, certain policies were reformulated, which resulted in increase in cost of import of coal from Indonesia.

Now, the companies approached the Central Electricity Regulatory Commission for seeking its assistance and demanding that the concerned SEBs should provide them with adequate amount of compensation for the losses which they have suffered due change in the Indonesian Regulations. The concept of compensatory tariff came into light from this instance, CERC stated that compensatory tariff should be provided to both the companies, firstly due to change in law and secondly, due the force majeure clause which was there in agreement. The CERC stated that the act was beyond the control of the companies, and they even after suffering so many losses it has been providing adequate support to all the consumers and industries. Further, the Commission stated that the power plant in Mundra takes care of almost two percent of India's Power needs, so adequate amount of compensation should be provided for the losses suffered by the two power companies. So, as a result of this, the Commission decided that around fifty- two paise per unit would be compensated to TATA Power and around forty-one paise per unit would be compensated to Adani Power.

⁷⁹ *Compensatory Tariff Orders: A Fine Balancing Act by CERC*, CARE RESEARCH, (24 Feb 2017, 08.37 PM), <http://www.careratings.com/upload/NewsFiles/SplAnalysis/CARE%20Research-%20Power%20Sector%20-%20Compensatory%20Tariff%20Orders%20-%20A%20Fine%20Balancing%20Act%20by%20CERC.pdf>

After the order was passed by the CERC, the two states i.e. Gujarat and Haryana who were procuring electricity from these two Companies approached the SC and got the stay order for payment of the compensation. In the meanwhile, the procuring stated referred the matter to APTEL, where again the tariff was upheld, but the case was sent back to CERC to adjudicate the matter properly. There were certain observations which were made by the appellate tribunal, and one of them being that Central Electricity Regulatory Commission is a regulatory body and not an adjudicatory body, so it should have not gone into the calculation of compensatory tariff which had to be paid to the generation companies. Also, it stated that the compensatory tariff should be paid only on the basis of change in law clause and the force majeure clause. On the other hand, APTEL passed the order in this matter in which it prevented the Central Electricity Regulatory Commission (CERC) to use its discretionary powers related to the issue of compensatory tariff and also related to the sanctity of the PPA.

Further, in the judgment passed by the tribunal, it has been very clearly stated that what actually should be the role of regulatory commissions in the electricity the sector or for that matter in any other sector where a mechanism of such sort has been framed. Moreover, in the said judgment an observation was made that the sole objective of the electricity act is not only to protect the consumers, but also to provide electricity at reasonable rates, so that the sector is self-sufficient⁸⁰ and that there is no demand for any sort of subsidies by the distribution companies, but again there has to be constant check on the power sector by the concerned authorities, so that they work in accordance with the regulations which are set under the act or in accordance with the rules framed by the commission from time to time.⁸¹

But, recently only Central Electricity Regulatory Commission came out with its order related to the issues of compensatory tariff which needs to be issued to the two generating companies i.e. Adani and Tata.⁸² In a major relief for the two privately owned generating companies, the CERC ruled in favor of the two companies by providing compensatory

⁸⁰National Tariff Policy, MINISTRY OF POWER, GOVERNMENT OF INDIA ,2006 (10 Mar 2016, 8:42pm), <http://www.powermin.gov.in>

⁸¹Gabriel Di Bella, *Strengthening the Electricity Sector to Improve Efficiency and Support Economic Activity-IMF Working Paper*.(10 March,2017 10.20pm)<https://www.imf.org/external/pubs/ft/wp/2016/wp1685.pdf>

⁸² Adani Power v. Uttar Haryana Bijili Vitran Nigam Limited & Ors. , order of CERC dt. 9th December, 2016 under section 79 of 2003 Act.

tariff due to higher coal cost for the power plants which were set up in Mundra. But, unfortunately the implementation of said order is subject to appeal which still pending in the Supreme Court and the faith of these generation power companies is still not sure even after the appropriate authority has delivered its detailed judgment in which it has completely stated that on what grounds the compensation should be awarded to these companies in the form of compensatory tariff.⁸³ Also, the tariff order which has been passed by the Central Electricity Regulatory Commission eliminates fuel risk and also directs the reduction of tariffs for distribution companies by laying certain important parameters. Further, the order also suggests that the profits which the generating companies have made from the projects set up by them in Indonesia will be adjusted against the losses which it generated due to change in the domestic law of Indonesia and circumstances which were beyond their control. Now, in the next chapter I will be elaborating on these two points i.e. Change in law and Force Majeure clause, because these were the two clauses in the agreement whose defense both the companies took and approached the Commission seeking for appropriate relief.

⁸³ Apurva Vishwanath, *Supreme Court refuses to stay CERC proceedings ON Compensatory Tariff for Power Firms*, LIVE MINT (13 March, 2016 10.35 pm) <http://www.livemint.com/Industry/hOHKSMVGOv2lmKCev1VVFK/SC-refuses-to-stay-CERC-proceedings-on-compensatory-tariff-f.html>.

3.1 Power Purchase Agreement of Adani and Tata with the State of Gujarat and Haryana

A Power Purchase Agreement which is generally known as PPA, is an agreement to buy electricity generated from the power plant. The parties involved are the producer and the purchaser, as for instance Adani is producing electricity through its power plant and State of Gujarat has entered into an agreement that they will be purchasing the electricity at a particular rate and for a particular period of time. It is very important that these contracts are very well drafted, are precise and clear, as they are long term agreements, so it is better to avoid any sort of ambiguity. There are certain essential elements in the PPA, which one cannot ignore. Firstly, the length of the agreement, usually the PPA is a long-term agreement between parties ranging between 20 to 25 years. Further, there can be provision relating to extension of time of the PPA, where both the parties mutually agree that they will further be bound by the agreement for a period of five more years.⁸⁴ Also, the agreement can be terminated by giving an advance notice to the opposite party, but certain terms and conditions which may be mentioned in the agreement must be adhered by the parties.

Secondly, the parties agree to the sale and purchase terms and conditions in which everything relating to quality of the supply, price at which electricity would be provided and the transmission sources which are available. All these things need to be very precisely mentioned in the PPA and it has to be made sure that there is no ambiguity, uncertainty or absurdity is left in the agreement, so that in case of any dispute which arises in the future, it can be resolved amicably.⁸⁵ Thirdly, all the PPAs include certain clauses relating to default of the parties. It is again one of the major clauses in any agreement, as it will help in assessing the liability of the parties and also in certain situations liquidated damages are already mentioned in the agreement itself.

⁸⁴Committee Report for CERC, for determination of compensatory tariff-I the matter of Coastal Gujrat Power Limited(2013) www.cercind.gov.in/2013/Reports/COMREP_CGPL.pdf.

⁸⁵ *Power Purchase Agreements and Energy Purchase Agreements*,WORLD BANK GROUP.(5th March,2017 10.30 pm) <https://ppp.worldbank.org/public-private-partnership/sector/energy/energy-power-agreements/power-purchase-agreements>.

So, the power purchase agreement which was entered between the generating companies i.e. Adani and Tata and the Distribution companies i.e. State Electricity Boards of Gujarat and Haryana, which agreed to purchase electricity from the two companies at a particular price and for a particular period.⁸⁶ Also, the Appellate Tribunal in its judgment while delivering the judgment made certain observation and one of them being that there was as such no clause in the PPA which allowed the generating companies to be compensated for any loss which they suffer in the future. So, on hand it can be seen that the generating companies are being compensated, but again the distribution companies would recover the cost ultimately from the consumers, so in any case the burden would be shifted on the consumers and no amount of pressure would be there on the generating companies as they are being compensated and the distribution companies are shifting or will ultimately shift the liability on the consumers only.

The PPA which was entered between the generating companies of Adani and Tata and state of Gujarat and Haryana⁸⁷ for supplying of electricity at a specified price for a specified period. But, the agreement entered between the parties did not go well, as the generating companies suffered loss due to increase in price of coal which they were importing from Indonesia, as a result of which they approached the competent authority that is the central electricity regulatory commission seeking for compensation for the losses in the form of compensatory tariff which they wanted the State Electricity Boards should pay them. Eventually, the central electricity regulatory commission came to the rescue and ordered in favor of the generating companies, allowing the losses which have been suffered by the companies to recover them in accordance with the guidelines which were formulated by the commission. But, unfortunately the whole burden of the same would be ultimately shifted on the consumers as the State Electricity Board would be charging more tariff as compared to the earlier tariff which was being paid by the consumer.

⁸⁶ Hitendra Rao, *Adani and Tata Power: Power Consumers in Haryana may get further burdened*, HINDUSTAN TIMES (5 March, 2017 12.44 am) <http://www.hindustantimes.com/india/adani-and-tata-power-power-consumers-in-hry-may-get-further-burdened/story-5FOMR5azb5qm0r5wx15rRP.html>.

⁸⁷ *Haryana to pay more for power purchase from Adani and Tata*, INDIAN POWER SECTOR.COM (4 March, 2017 3.44 pm) <http://indianpowersector.com/2014/02/haryana-to-pay-more-for-power-purchase-from-adani-tata/>.

Moreover, there was as such no clause which mentioned that if in future there would be any increase in the import of coal or for that matter any other factor which would lead to increase in the generation of the electricity, the companies would be provided with compensation in the form of compensatory tariff. The sanctity of the PPA should not be affected in anyway, as it is the only source which lays down the terms and conditions which shall govern the parties who have entered into the agreement. In the present case, there have been certain averments which have been made in the PPA and also there was a committee which was set up for the same to deal with the issue of compensatory tariff. The committee suggested that the generation companies should blend⁸⁸ the Indonesian coal with the domestic coal for generation of electricity and they can import less coal, as compared to normal quantity which they were importing before the prices were raised up by the Indonesian government due certain change in polices and domestic law in the year 2010. But, the companies did not agree to the proposal which was made by the committee and they continued to import coal in the normal quantity, as a result of which the companies suffered huge losses, but did not compensated on the quality of supply and it also did not let the consumers suffer on any part, whether household, industrial or commercial, all were provided adequate amount of electricity all this while, even when the generating companies were running in losses.

Again, it can be seen that the step taken by the commission for granting the compensatory tariff to the generating companies is a positive way ahead because the efforts which have been made by the generating companies to supply the electricity to all the consumers have been immense and the consumers, it can be said that can take a little bit of burden by paying more tariff for the same consumption of electricity.

⁸⁸ Radhika Sankaran, *Alternative Remedy for Imported Coal Price Escalation*, LAKSMI KUMARAN & SRIDHARAN (4 March, 2017 3.44 pm), <http://www.lakshmisri.com/News-and-Publications/Publications/Articles/Corporate/alternative-remedy-for-imported-coal-price-escalation>.

3.2 Discussion of Specific Clauses under the Power Purchase Agreement

The two most important and basic clauses which are there under any PPA are the Change in Law clause and the Force Majeure clause, and evidently the two generating companies i.e. Adani and Tata have taken specific plea under these two clauses only. So, before going into detail, let's briefly understand the basic concept of these two clauses. The first one is regarding the change in law, in such circumstances it has to be seen that what has been the effect on the PPA which has been entered between the parties due to the alteration or change in law which has taken place. Whether, due to the change in law clause, it would defeat the very purpose of the PPA, which was entered between the parties, or there is any possible solution for the same or any other alternative option or technique which the parties can undertake for the fulfillment of the agreement entered between them. On the other hand, force majeure in general parlance means any act which is beyond the control of the parties who have entered into the agreement. It means anything which prohibits one of the parties from fulfilling the conditions which have been mentioned in the contract.

Similarly, the generating companies i.e. Adani and Tata, approached the Central Electricity Commission on the basis of these two clauses for seeking some sort of assistance from the regulatory authority. The appropriate authority or the commission for that matter very rightly entertained the plea of the generating companies and allowed compensatory tariff at a certain price per unit which it ordered will be paid by the State Electricity Board of Haryana and Gujarat, as they were only purchasing electricity from these two generating companies. In the case of *Dhanrajmal Gobindram vs. Shamji Kalidas & Co.*⁸⁹, it was held that the term force majeure should be given the widest amplitude with the intention of saving the parties due to non-performance and similarly in the present case, the appellate tribunal relied on this case and upheld the clause of force majeure as a ground due to escalation in the prices of coal which was being imported from Indonesia.⁹⁰

Now, moving on to the two clauses i.e. change in law and force majeure on the basis of which the generating companies approached the CERC.

⁸⁹ *Dhanrajmal Gobindram vs. Shamji Kalidas & Co*, AIR 1961 SC 1285

⁹⁰ *Id.* at 87

[A] Change in Law

There was a specific clause in the PPA entered between the generating companies i.e. Adani and Tata and the coal export company of Indonesia related to change in law. The whole thing of change in law was applicable when, in the year 2010 the Government of Indonesia changed certain domestic laws and implemented certain policies. This change resulted in increase of coal export which was being made to India for the generation of electricity to these generating companies.⁹¹

So, due to the change in domestic laws in Indonesia, the prices of coal became higher as a result of which the generating companies suffered huge losses, as they were paying double the prices of coal import as compared to the earlier prices under the PPA. So, the companies approached the central electricity regulatory commission seeking for compensation in the form of compensatory tariff. The companies claimed that due to change in law in the foreign country has affected the prices of coal import and the tariff which was set before was in accordance with the PPA in which the cost of coal was much lower as compared to the present one. They stated that the tariff should be increased as there is change in law as a result of which the coal prices have gone up and they are suffering heavy losses due the same. The commission acknowledged this fact and allowed that compensatory tariff in the form of compensation should be provided to these generating companies.

But, again when the matter went before the appellate commission, they clearly stated that the central electricity commission has only regulatory powers and not judicial powers. So, the compensation in the form of compensatory tariff which has been allowed by the commission on the basis of change in law is not appropriate, as there is no were mentioned in the PPA, that due to change in prices of any raw material or for that matter increase in prices of imported coal, the generating companies would be provided compensation.⁹² However, the appellate tribunal stated that compensation should be provided but on some other ground and not on the basis of change in law clause, as a result the matter for sent back to central electricity commission to adjudicate it properly.

⁹¹ Appellate Tribunal had quashed the regulatory proceedings of the CERC under Section 79(1) the Electricity Act, 2003.

⁹² Sankaran, *supra* note 88

[B] **Force Majeure**

In general parlance force majeure means any act which is beyond the control of the contracting parties, as a result of which one of the parties to the contract is not able to fulfil the obligation which he was required under the agreement. In the case of *Dhanrajmal Gobindram vs. Shamji Kalidas & Co*⁹³, it was held that the term force majeure should be given the widest amplitude with the intention of saving the parties due to non-performance and similarly in the present case, the appellate tribunal relied on this case and upheld the clause of force majeure as a ground due to escalation in the prices of coal which was being imported from Indonesia

The second defense which was taken by the generating companies was that of force majeure clause and the electricity commission again on this basis allowed that compensatory tariff should be paid to these companies for the losses they have suffered. The commission stated that the act was purely of force majeure in the present instance as the act was beyond the control of the generating companies, as the coal prices increased due to external factors, due to change in policies and law made by the government of Indonesia in which these companies had no say at all. So, the commission stated that adequate amount of compensation, per unit price was decided by the commission which had to be paid to the companies in the form of compensation. On the other hand, the appellate tribunal also to a slight effect appreciated the fact that compensation can be paid to these companies on the basis of force majeure clause, so it directed the commission to adjudicate the matter once again and make proper calculations for the compensation which needs to be paid to these companies.⁹⁴

So, as discussed above, it can be seen that these two very clauses very the most important one in the PPA, which helped these companies to seek compensation or any form of redressal from the concerned commission.

⁹³ *Dhanrajmal Gobindram vs. Shamji Kalidas & Co.*, AIR 1961 SC 1285

⁹⁴ *Id.* at 87

3.3 Judgment Delivered by Central Electricity Regulatory Commission

Now, starting from the beginning, in brief the facts of the case are as follows, that Tata power had emerged as the highest bidder for the Mundra Power Project by quoting 2.26Kwh for supply for 3800Mw to various distribution companies.⁹⁵ The basic purpose of the project was that it would be envisaged on international coal for which the company purchased certain stake in the Indonesian mining company.⁹⁶ But, unfortunately due to rise in the prices of coal due to change in the domestic laws and policies of Indonesia, the financial viability of the project seemed at a threat. As a result of which the company approached the central electricity regulatory commission for seeking some sort of relief and the commission calculated the amount of tariff which had to be paid to the company after deducting all the profits it has generated from the mining project in Indonesia and the amount which it has already received from the distribution companies. A formula was derived for calculating the actual prices or compensation which had to be paid to Tata power for the losses it had suffered due to increase in prices of coal and accordingly the commission ordered for the payment to be made by the state electricity boards of the state to whom the electricity was being supplied.

Furthermore, on the other hand the second generating company was Adani power had got the bid in its favor for the supplying of electricity to the states to Haryana and Gujarat and the tariff which was quoted by the company was around Rs. 2.35/Kwh for Gujarat utilities and Rs. 2.94/Kwh for Haryana utilities. The tariff stated by the company included tree components such as capacity charge, energy charge and transmission charge. However, due to unforeseen events such as change in the domestic laws of Indonesia from where the coal was being imported for the generation of electricity, the tariff which had been quoted by the company during the time of bidding, it was becoming difficult to generate electricity at the same price, as a result of which company started suffering huge losses. So, the

⁹⁵ Distribution Companies of Gujarat, Maharastra, Punjab and Haryana

⁹⁶ Bumi Resources - PT Kaltim Prima coal (KPC) and PT Arutmin

company approached the central electricity commission for seeking adequate amount of relief.

The below table⁹⁷ shows the calculation which was done by the commission for paying compensation in the form of compensatory tariff to Tata Power.

**SNAPSHOT OF CERC COMPENSATORY TARIFF ORDER
FOR TATA MUNDRA UMPP PROJECT**

Sr. No.	Tariff Componenets	Unit	
1	Units sola at 80% PLF	MU	26630
2	Fuel charges as per tariff - FOB		
2.a	Quoted Non-Escalable Fuel Energy Charges (QNEFEC)	USD/ kWh	0,007
2.b	Quoted Escalable Fuel Energy Charges (QEFEC)	USD/ kWh	0,006
3	CERC escalation index		196,41
4	QEFEC (2b) after indexation	USD/ kWh	0,011
5	Fuel Energy tariff componenet (2a+4)	USD/ kWh	0,019
6	Fuel Charges Recovered (1*5)	mn USD	494
7	FOB cost of imported coal (say)		63,78
8	Effective import duty		6,33%
9	FOB cost of imported coal+ duty	USD/MT	67,82
10	Imported coal for generation	MT	10,73
11	Imported coal cost (9*10)	mn USD	728
12	Gross compensation(11-6)	mn USD	233
13	Gross compensation per unit (12/1)	USD/ kWh	0,009
14	Exchange rate assumed	INR/USD	60
15	Gross compensation per unit	Rs/kWh	0,53

Source: CERC tariff order, CARE research estimates

Table: 2

⁹⁷ CERC Tariff Order, *supra* note 79

The below table shows⁹⁸ the shares which Tata power has in the profits which are generated from the Mundra project.

**CALCULATION OF SHARE IN MINING PROFITS
FOR TATA MUNDRA UMPP PROJECT**

Sr. No.	Tariff Componenets	Unit	
1	FOB Indonesia coal price as per invoice	USD/MT	63,7
2	Contracted Prices as per FSA	USD/MT	37,7
3	Incremental Revenue to Indonesia company/ton	USD/MT	26,0
4	Less : Royaty @ 13.5%	USD/MT	3,5
5	Revenue net of Royalty	USD/MT	22,5
6	Incremental Tax @45%	USD/MT	10,1
7	Incremental profit to Indonesian mining company	USD/MT	12,4
8	Quantity Supplied	MT	12,0
9	Net Incremental PAT from Indonesian mining company	mn USD	148,5
10	Tata Power share (30%) of incremental PAT (US\$ mn)	mn USD	44,6
11	Exchange Rate	Rs/USD	60,0
12	Per Unit Profit	Rs/kWh	0,10
13	Gross Compensatory tariffs	Rs/kWh	0,53
	Less: Adjustment in coal profits	Rs/kWh	0,10
	Less: Adjustment in haircut 1% in RoE	Rs/kWh	0,02
14	Net Compensatory Tariff	Rs/kWh	0,41

Source: CERC tariff order, CARE research estimates

Table: 3

SENSITIVITY ANALYSIS OF NET COMPENSATORY TARIFF - TATA MUNDRA UMPP PROJECT

Coal Price - FOB (USD)	58,7	59,7	60,7	61,7	62,7	63,7	64,7	65,7	66,7	67,7	68,7
INR/USD											
55	0,435	0,431	0,428	0,424	0,421	0,417	0,414	0,410	0,406	0,403	0,399
56	0,433	0,430	0,426	0,423	0,419	0,415	0,412	0,408	0,405	0,401	0,397
57	0,432	0,428	0,425	0,421	0,417	0,414	0,410	0,406	0,403	0,399	0,395
58	0,431	0,427	0,423	0,420	0,416	0,412	0,408	0,405	0,401	0,397	0,393
59	0,429	0,426	0,422	0,416	0,414	0,410	0,398	0,403	0,399	0,395	0,391
60	0,428	0,424	0,420	0,416	0,413	0,409	0,405	0,401	0,397	0,393	0,389
61	0,427	0,431	0,419	0,415	0,419	0,407	0,403	0,399	0,395	0,391	0,387
62	0,425	0,421	0,417	0,413	0,409	0,405	0,401	0,397	0,393	0,389	0,385
63	0,424	0,420	0,416	0,412	0,408	0,404	0,400	0,396	0,392	0,387	0,383
64	0,423	0,418	0,414	0,410	0,406	0,402	0,398	0,394	0,390	0,386	0,381
65	0,421	0,417	0,413	0,409	0,405	0,400	0,396	0,392	0,388	0,384	0,379

Source: CARE Research

Table:4

⁹⁸ CERC Tariff Order, *supra* note 79

The below table⁹⁹ shows the calculation of compensatory tariff which was done by the commission.

Snapshot of CERC Compensatory tariff order for Adani Power - Gujarat PPA (1000 MW)					
Sr. No.	Tariff components	Unit	Type 1 coal (High GCV)	Type 2 coal (Low GCV)	Blending ratio 53:47 (Low GCV : High GCV)
1	Coal Type	kcal/kg	6322	3000	4556
2	FOB value	USD/MT	78.8	22.0	
3	Ocean Freight	USD/MT	10.3	10.3	
4	Insurance, Finance & Transport	USD/MT	2.7	1.0	
5	CIF	USD/MT	91.8	33.3	
6	Transit Loss up to Mundra @ 0.8%	USD/MT	0.73	0.27	
7	CIF incl. transit loss	USD/MT	92.5	33.6	
8	Exchange Rate	Rs/USD	59.74	59.74	
9	CIF	Rs/MT	5525	2005	
10	Port handling charges	Rs/MT	293.93	293.93	
11	Handling losses of Mundra port	Rs/MT	15	6	
12	Landed price of imported coal		5833	2304	
13	Cost per unit	kg/kWh	0.26	0.29	
14	Coal used	Rs/kWh	1.52	0.67	2.185
15	Cost per unit	Rs/kWh			0.015
16	Secondary Fuel charges	Rs/kWh			2.200
17	Quoted fuel cost	Rs/kWh			1.35
18	Under-recovery (Gross)	Rs/kWh			0.8509
19	Profit from Indonesian Mines				0.0550
20	Sale beyond Normative Availability				0.2421
21	Reduction due to sacrifice in RoE				#
22	Compensatory Tariff				0.5537

Source: CERC tariff order, CARE Research estimates # final figure to be decided mutually

Table: 5

⁹⁹ CERC Tariff Order, *supra* note 79

The below table¹⁰⁰ shows the compensatory tariff calculated for the Haryana utility on the basis of the PPA which was entered between the parties.

SNAPSHOT OF CERC COMPENSATORY TARIFF ORDER FOR ADANI POWER - HARYANA PPA(1424 MW)

Sr. No.	Tariff components	Unit	Imported Coal Stream 1 (22%)	Imported Coal Stream 2 (20%)	Domestic Coal 2 (58%)	Blending ratio 53: 47
1	Coal	kcal/kg	6322	6322	3300	4569
2	FOB Value	USD/MT	78,76	78,76		
3	Ocean Freight	USD/MT	12,6	12,0		
4	Insurance, Finance & Transport	USD/MT	0,3	2,7		
5	Loss of Transit of Coal			0,8		
6	CIF	USD/MT	91,7	94,2		
7	Exchange rate	Rs/ USD	59,7	59,7		
8	CIF	Rs/ MT	5475	5626		
9	Port Handling charges	Rs/ MT	294	294		
10	Port Handling losses	Rs/ MT		15		
11	Landed price of imported/domestic coal	Rs/ MT	5769,3	5934,3	2032,3	3634,8
12	Contracted Capacity	MW				1425
13	PLF	%				80,00
14	Units Sold (Mus)					9986,4
15	Quantity of Coal required (MT)	kg/kWh				5,6
16	Energy Cost at Bus Bar					2,045
17	Transmission Charges	Rs/kWh				0,349
18	Transmission Losses	Rs/kWh				0,100
19	Secondary Fuel Charges	Rs/kWh				0,015
20	Total Energy Charges	Rs/kWh				2,509
21	Quoted Energy charges	Rs/kWh				2,145
22	Under recovery (Gross)	Rs/kWh				0,364
23	Profit from Indonesia mines					0,038
24	Sale beyond Normative Availability					0,236
25	Reduction due to Scarifice in RoE					#
26	Compensatory Tariff					0,090

final figure to be decided mutually

Source: CERC tariff order, CARE research estimates

Table: 6

¹⁰⁰ CERC Tariff Order, *supra* note 79

Now, analyzing the Power Purchasing Agreements (PPAs) of both the generating companies, the commission came to the conclusion that compensation should be paid to the companies in the form of compensatory tariff. While looking at the PPAs, the commission stated that Adani power operated the mundra power project and had an installed capacity of 4620 MW and supplied electricity to Gujarat Urja Vikas Nigam Limited (GUVNL) and Uttar Haryana Bijli Vidyut Nigam Limited. On the other hand, it stated that the Tata power's subsidy company Coastal Gujarat Power Limited (CGPL) operated 4000 MW power plant which supplied power under the PPA to Maharashtra State Electricity Distribution Company Limited, Punjab State Power Corporation Limited and Haryana Power Generation Corporation Limited. So, it stated that in accordance with the terms of the said PPAs, the two companies Adani and Tata had to procure the supply of coal through Fuel Supply Agreements (FSA). As, a result of this Tata power signed an FSA with an Indonesian mining company and simultaneously Tata power acquired stakes in the coal mines in Indonesia and similar fashion Adani power also entered into FSA with its own subsidiary only.

Furthermore, the appeal was made by both the companies to Central Electricity Regulatory Commission in the year 2013, in which they claimed compensation for the losses they had suffered due to an order passed by the Government of Indonesia¹⁰¹. The order passed by the government mandated the coal exporters to buy coal at the rates which were in conscience with the International market prices related to coal. As, a result of these changes made by the Indonesian government resulted in over-pricing of the fuel prices, as it completely over-ruled the FSAs which entered by the generating companies.

So, after analyzing the aspects of the PPAs, the commission passed an order¹⁰², in which it held that the change in law clause on which the companies were relying for compensation applied only to Indian laws and not to any foreign laws, so the application of change in law clause in the present scenario won't be appropriate. Again, on the hand, the commission refused to accept the plea of force majeure clause¹⁰³, on the ground that the facts in the

¹⁰¹ Indonesian Minister of Energy and Mineral Resources (2010)

¹⁰²Appeal No. 100 of 2013, Appeal No. 98 of 2014, Appeal No. 116 of 2014, Appeal No. 134 of 2014 and Appeal No. 135 of 2014.

¹⁰³ An act beyond the control of the parties, which results in impossibility to perform on one of the parties to the contract. eg. Act of God or War.

present case didn't satisfy the application of the relevant clause. But, again in the PPAs, the force majeure event permitted the change in tariffs to which were earlier agreed upon between the parties. The commission stated that the change in or increase in the FSA did not in any way prohibited the execution of PPAs which were entered by the generating companies.

However, the Commission itself revised the tariff in the larger interest of the consumers, producers and distribution companies under Section 79¹⁰⁴ of the Electricity Act, 2003. Also, a committee was formed by the commission to determine the amount of tariff which should be paid to these two companies in form of compensatory tariff. The committee consisted of a reputed bank and also the representatives of both the generating companies. After the final report was prepared, the commission in its final order stated that compensatory tariff should be paid to both these companies.

¹⁰⁴ Electricity Act, 2003, sec. 79

CHAPTER IV: JUDGMENTS BY SUPREME COURT AND APTEL

After, the final orders were passed by the Central Electricity Regulatory Commission, the distribution approached the Supreme Court for staying of the orders which were passed by the commission and subsequently filed an appeal in the Appellate Tribunal. The final order¹⁰⁵ of the APTEL came out which remanded the issue back to the CERC. In its 486, long page judgment, the tribunal stated that Section 79(1)¹⁰⁶ of the Electricity did not give any sort of powers to the commission to award any kind of compensatory tariffs to the generating companies. Also, it stated that tariff has to be decided in accordance with Section 63¹⁰⁷ of the Indian Electricity Act, 2003 and the previous tariff was decided in compliance with the requirements which were necessary for competitive international bidding.

However, on the other hand while the tribunal was reevaluating the issue of change in law clause and force majeure clause, it stated in affirmative that the change in Indonesian law did constitute a force majeure event. So, under such circumstances the commission was empowered to alter the tariffs, but only in a capacity of a regulator and nothing more. So, accordingly the tribunal remanded back the matter to the CERC and asked it to recalculate the necessary revisions which are necessary in the power tariffs. Also, a time limit of three months was given to the commission to decide upon the matter. Finally, recently only the judgment of CERC came out in which is stated that the compensatory tariff would be paid to the two generating companies. In its order, the central regulator stated that the petitioner (the generating companies) were entitled for relief under the force majeure clause under the terms of Article 12.7(b) of the PPA.

So, accordingly it provided the relief to these companies and it calculated the amount on the basis of per unit basis, which needs to be paid to them. But, again the implementation of the decision has not taken place due to the pendency of the matter in the Supreme Court. As, the apex court had earlier stated that without their consent the order won't be enforced, and presently the proceedings of the same are taking place on daily basis in the Apex Court.

¹⁰⁵ The Appellate Tribunal accordingly set aside the interim and final orders of the CERC granting Compensatory Tariff and redirected the appeals to be considered on the basis of force majeure clause.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

So, in the light of events it can be seen that the Appellate Tribunal under certain provisions of the Power Purchase Agreement has recognized that due to change in law and policies in Indonesia there has been escalation of coal prices. Therefore, it redirected the CERC to provide with calculations for the compensatory tariff, but only on the basis of Force Majeure clause and not on the basis of change in law clause.

4.1 APTEL'S JUDGMENT AND OBSERVATIONS MADE

After the final order of the Central Electricity Regulatory Commission came out in the year 2014, the distribution companies preferred an appeal under Section 111¹⁰⁸ of the Electricity Act, 2003. So, in the appeal, the appellate tribunal over-ruled the order which was passed by the CERC and it stated that the central commission does not have any sort of regulatory power to provide compensatory tariff under the provisions which are enumerated in the Indian Electricity Act, 2003.¹⁰⁹ It further stated that the commission had no such power to alter the tariff which was determined under Section 63 of the act by the process of competitive bidding, and the only time it can interfere in the tariff process is when it has been shown that the bidding process was not carried out in accordance with provisions or regulations which are stated under the act.

Moreover, the tribunal stated that any sort of relief which can be claimed by the two generating companies on the basis of price escalation could be on the basis of change in law and force majeure, as mentioned in the PPA. So, in case any relief is sorted by the generating companies under these two clauses the CERC can provide adequate relief to the companies under its adjudicatory power, which is enumerated under Section 79(1) (f) of the Electricity Act, 2003. Moving forward, the tribunal interpreted the term change in law and it found that the clause in the PPA, referred to Indian laws only and did not included change in law of any foreign country. So, in the present scenario the change was made in the Indonesian law due to which the prices of coal escalated and it won't come under the ambit of change in law under the PPAs.

Furthermore, the tribunal looked into the second clause i.e. Force Majeure. The tribunal made more clear with the instance of a decided case the meaning of the term Force Majeure. In the case of *Dhanrajmal Gobindram vs. Shamji Kalidas & Co.*¹¹⁰, it was held that the term force majeure should be given the widest amplitude with the intention of saving the parties due to non-performance and similarly in the present case, the appellate tribunal relied on this case and upheld the clause of force majeure as a ground due to escalation in

¹⁰⁸ Electricity Act, 2003, sec. 111

¹⁰⁹ Electricity Act, 2003, sec 79(1)

¹¹⁰ *Dhanrajmal Gobindram vs. Shamji Kalidas & Co.*, AIR 1961 SC 1285

the prices of coal which was being imported from Indonesia. So, relying on the judgment of the Supreme Court, the tribunal stated that the change in regulations in Indonesia was way beyond the control of Adani Power and Tata Power, and which resulted in hindrance of the performance of these two companies, but still they honored the obligation under the PPA, to provide power supply to the consumers. It was noted by the tribunal that if the generating companies remained in the same position, then the financial viability of the power sector would be affected as a result of which the companies would be shut down.

Moreover, it was noted by the tribunal that if the parties to the PPA are not able to perform the obligation due to circumstances which are beyond their control, it would be covered under the clause of Force Majeure.¹¹¹ The tribunal observed that the change in coal prices did not fall under the natural or non-natural instances which were stated in the said PPA. But, it stated that the increase in coal prices by the government of Indonesia could be well brought within the ambit of the provision force majeure. The change in prices of coal can be seen an event which beyond the control of the parties, so the tribunal stated that such a thing should be seen as a force majeure event. Further, it stated that change in Indonesian regulation was a sudden and drastic event, so the generating companies should be provided adequate relief. So, the Appellate tribunal set aside the interim and final orders of the CERC and redirected the central commission to grant compensatory tariff only on the basis of force majeure clause.

The Appellate Tribunal quashed the regulatory powers of the Central Electricity Regulatory Commission under section 79(1)¹¹² of the act. The CERC under the act has not been empowered with the power to change or alter the tariff which has been determined by a proper procedure enumerated under Section 63¹¹³ of the act. However, the only time interference can be made by the central commission is that when it can be seen that the bidding process which has been enumerated under the act has not been followed or certain other regulations which were essential have been ignored and the only power which they

¹¹¹ *Supra* note 88.

¹¹² *Id.*

¹¹³ *Id.*

have is the rejection of application which can be made by the commission and nothing more.

Now, the question remains, is that the final order of the central commission has also come out, but when will the generating companies be quantified? As, at present also the proceedings of this case are still pending in the Apex Court and proceedings are being done on daily purpose. The concept of compensatory tariff for the first time evolved through this order of the central commission only, as there was no definition anywhere of compensatory tariff. With, the rapid growth and advancement of the power sector, the legislation would need to amend the current Electricity Act, 2003 so that such difficulties do not arise in near future, as it causes problem both the operating companies and the consumers as well.

CONCLUSION

As, we have seen through the different scheme of chapters which have been discussed above, it shows that though the Power Sector is emerging at a rapid pace, but there are still certain gaps which need to be fulfilled by the legislature or by in intervention of the judiciary. Though, the Indian Electricity Act, 2003 was enacted more than a decade ago with the main objective of promoting competition and enhancing transparency in the power sector by maintaining proper check and balances system. The legislation which was formulated, in no doubt has helped the power sector industry to growth efficiently and effectively, but still there are certain loopholes which need to be filled. The concept of open access and license free regime also evolved under the new legislation which resulted in entering of private players in the sector. Further, given the significance of the role of the government in the sector of electricity, it is difficult to recognize the effect of regulators. So, what we get, best case scenario is a divided view. The view that we do get is that direction in the power sector, there has not been successful regulatory functions been performed by the concerned authorities or the appropriate commission for that matter.

However, the present scenario in the power sector if we compare it to last two decades, is possibly the most consolidated one as it makes the laws relating to distribution, transmission, trading and generation more stringent, which helps in the overall growth and development of the power industry. The legislation has been enacted that it looks to enhance and protect the interests of the consumers and supply of electricity in all the areas and also creation of rationalization of electricity tariff and further creating transparent polices concerning tariffs.

Again, the tariff mechanism which has been provided under the legislation helps in determining the tariff properly without creating any sort of absurdity and confusion in the mind of the bidders. Also, the government has acted as a watch dog and has made relevant changes in the tariff polices through the implementation of the National Tariff Policy from time to time. But, again the main problem which lies is the implementation of these policies, such as one of the objective of the policy as stated is electricity for all; twenty-four seven electricity etc., but still there are many places in India which do not have access to electricity. The moot question which arises is why the government or the regulatory

bodies which have been set up, not taking any sort of action for the same. So, for India to compete with other nations and for the growth of the power sector, it is necessary that the policies and other regulations are implemented in accordance with the procedure established by law.

Moreover, there have been certain recent developments in the power sector such as the concept of Compensatory Tariff which came into light in the case of Adani and Tata, in which two key issues which arose were that who shall be liable for the change in law clause and force majeure clause and again in the end the ultimate sufferer would be the consumer. Though, the central commission have allowed the petition of the generating companies and has ordered the payment of the compensatory tariff for the same, but again the question which arises is that on whom the liability would be shifted? The distribution companies have been asked by the central commission to pay the compensation, but again the distribution companies will further shift this burden upon the consumers and ultimately it will be the consumers who will be suffering as they will pay more tariff for the same consumption of electricity.

But, if certain reports are to be believed it is stated that there has been fraudulent inflation of the tariffs by altering the invoices for the coal which was being imported from Indonesia and now that the generating companies are trying to make illegal gains in the form of compensatory tariffs. Now, after the appellate tribunal ordered the payment of compensatory tariff on the basis of force majeure clause, it is feared that any company which is running in losses or is not able to meet the requisite stands will approach the tribunal and will ask for compensation. So, to avoid such a mishap in near future, there needs to be an urgent step such as formulating a standard set of procedures which should be followed or should be there in the PPA, who are entering into such type of agreements, as a result of which consumers can be protected from change in tariffs because in the end the ultimate sufferer is the consumer only.

On the other hand it can be seen that the tribunal observed that the generating companies did not hinder the contractual obligation and provided necessary supply of power to the consumers and other industrial and commercial units. Also, the tribunal stated the application of force majeure clause in the present scenario was in accordance with the PPA

which was entered between the parties, as the rise in prices was a sudden event and accordingly the companies should be compensated.

Therefore, in the end it can be concluded that the power sector in India is still a growing industry and it needs to abide by all the procedures, policies and regulations which are enacted under the said legislation for better results. Further, certain other measures should be taken on how the consumers can be provided more security under the power sector, as we have seen that ultimately it is the consumer only who has to bear all the costs.

BIBLIOGRAPHY

Online Resources:

- sconline.com
- westlawindia.com
- manupatra.com
- jstor.com
- lexisnexis.com

Books:

1. Chatterjee S.K., THE ELECTRICITY LAWS OF INDIA, 2nd Ed., Delhi Law House, Part X.
2. Bharucha Naushir,(2004) GUIDE TO THE ELECTRICITY LAWS, (4th ed., 2004).

Articles:

1. Guha, Paranjoy (2016) *Power Tariff Scam Gets Bigger at Rs. 50,000 Crore*, 51 EPW, Vol. 51, Issue No. 20, 14 May, 2016.
2. Committee Report for CERC(2013), for determination of compensatory tariff-I the matter of Coastal Gujrat Power Limited
3. Zinaman Owen & Miller Mackay(2014), *The Evolving Role of The Power Sector Regulator*, National Renewable Energy Laboratory (NREL), Technical Report NREL/TP-6A20-61570
4. Ahluwalia, S S & Bhatiani, G, (2000) *Tariff setting in the electric power sector: base paper on Indian case study*, TERI Conference on Regulation in Infrastructure Services, In Proceedings of the National Conference on Regulation in infrastructure Services: progress and way forward
5. Power Sector in India, (2002) KPMG India

6. Singh, Vijay Vir & Mitra, Siddhartha, *Regulatory Management and Reform in India*, Background paper for OECD (2008)
7. Chadah, Sapna (2005), *Case Laws on Electricity*
8. Tupe Sanjay (1980), *The Performance of Indian Power Sector for Pre-and Post - Reforms Period*
9. Sita Mishra (2013), *A Comprehensive Study and Analysis of Power Sector Value Chain in India*, (2013) Vol. 8, No. 1, pp. 25-40
10. Sankaran Radhika, *Alternative Remedy for Imported Coal Price Escalation*, LAKSHMI KUMARAN & SRIDHARAN
11. *Committee Report for CERC*, www.cercind.gov.in/2013/Reports/COMREP_CGPL.pdf.
12. *Power Purchase Agreements and Energy Purchase Agreements*, <https://ppp.worldbank.org/public-private-partnership/sector/energy/energy-power-agreements/power-purchase-agreements>.
13. *K.P. Rao Committee Report on Policy for Captive and Co-generation Plants*, <http://powermin.nic.in/en/content/policy-captive-and-co-generation-plants>.
14. Atmanand & Gupta, Amit K. (2009), *Energy and Sustainable Development- An Indian Perspective*, World Academy of Science, Engineering and Technology 54 2009
15. *Emerging Opportunities and Challenges* (2012), INDIAN ENERGY CONGRESS, PRICEWATERHOUSECOOPERS
16. Kodwani Devendra, *Institutional Endowments and Electricity Regulation in India.*, http://regulation.upf.edu/bath-06/10_kodwani.pdf