

UNIVERSITY OF PETROLEUM & ENERGY STUDIES
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**INTROSPECTING THE NEED FOR INDEPENDENCE OF REGULATORS IN THE
ENERGY SECTOR- AN ANALYSIS OF THE NEED**

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**A Dissertation Report submitted in partial fulfillment of the requirements
for LLM (Energy Laws Specialization)**

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APPENDIX-II
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APPENDIX-III

A Declaration by the External Guide

This is to certify that Ms. Divya Sood, a student of LLM (Energy Law Specialization) with SAP Id. 500041925 of University of Petroleum and Energy Studies has successfully completed this dissertation report on “*Introspecting the need for Independence of Regulators in the Energy Sector- An analysis of the need.*” under my supervision.

Further I certify that the work is based on the investigation made, data collected and analyzed by her and it has not been submitted in any other University or Institution for award of any degree. In my opinion it is fully adequate, in scope and utility, as a dissertation towards partial fulfillment for the degree of LLM.

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A Declaration by the Internal Guide

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INTROSPECTING THE NEED FOR INDEPENDENCE OF REGULATORS IN THE ENERGY SECTOR- MY ANALYSIS OF THE NEED¹

2. INTRODUCTION

This Dissertation is set in the backdrop of the emergence of a plethora of regulatory authorities in the field of economic regulation in India. Unlike other sector specific regulators, Electricity Regulators are so called the most independent Regulators in the Country. The Parliament enacted the Electricity Act in 2003 to remove the complete control of the State Governments and that the sector is uniformly controlled as per the statute with major objectives and mandate to promote competition, efficiency and economy in the power sector and to regulate tariffs of power generation, transmission and distribution with the view to protect the interest of consumers and other stakeholders.

As per the legislative framework, the duty of the Electricity Regulators was to “eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade carried on by other participants, in markets in India while ensuring to bridge the demand supply gap in the power sector”. This mandate is extraordinarily wide and supersedes with the power of Government to regulate the Sector.

This dissertation deals with the above interface. It analyzes the genesis of regulatory jurisprudence and objectives set in the Indian context and compares and contrasts it with the Actual independence that is exercised by the Regulators, its impact on the industry and whether they are truly independent when it comes to Regulating.

¹ *The author is a professional in Power Sector have chosen “**Introspecting the need for independence of Regulators in the Energy Sector- An analysis of the need**” as a topic for my project in the capacity of a post graduation student pursuing LLM (Energy Law Specialization), SAP ID 500041925, from the University of Petroleum and Energy Studies after having Completed Bachelor in Business Administration and LLB (Hons.). The author can be contacted on divyasood6@gmail.com.

The dissertation has both an exploratory and normative aim. It takes into account experiences of various States and closely analyzes the framework of the Electricity Act as juxtaposed with other sector specific regulators. I would also focus on how the objective of the Act was uniquely situated to ensure a robust level of consumer welfare which is presently not being fulfilled. That is mainly because the legislature at the time of drafting left loopholes within the Act which allows Government interference and distancing of the Commission from the consumers by way of creating a Consumer Grievance Redressal Forum against whose decision a consumer can appeal to Ombudsman whose decision then may be appealed against in the High Court and how the Government still holds a dominant position.

Normatively, the paper utilizes the methodological tool of law-and-economics and suggests that the enforcement of statute is a sophisticated task in specialized field and to efficiently enhance legal certainty/predictability, the realm of electricity law enforcement ought to be left in the hands of the Regulators only. But another interesting question then comes forth. Whether the Regulators as specified by the Act are the Actual Regulators or are the Courts or the Specialized Courts the Regulators. And if the Regulator is the Actual Regulator then why is there a need to regulate the Regulator. Thus, it is argued, is in the best interest of both consumers and business entities.

Structurally, the paper is divided into several parts. The paper, in Section II, starts with the introduction of the work. Section III deals with the concept of a Regulator and who actually is a Regulator. It deals with the emergence of the idea of regulation in India and its development leading to formation of Regulators as an instance of regulation. It shall also reflect the need of a Regulator. Section IV builds upon Section II and Section III and provides a synoptic perspective on sector specific regulators i.e. Regulators in the Energy Sector and their independent status to regulate. This Section shall cover the DGH, the PNGRB and the CERC and the SERCs. Section V analyzes the Power Sector its evolution and the present scenario. Also it would put light on the Governance, market and economy in the present scenario and the road ahead. Section VI will talk about the Regulatory Framework in the power Sector. It puts forth descriptive and normative justifications behind granting complete

independence. It also puts forth that there is a need for dissemination of correct and authentic knowledge on the subject of electricity regulation to all the stakeholders. Section VII shall put forth whether the Government has handcuffed the Regulator and the so called statutory independence is just eyewash for the public. However, this Section shall also put forth how Government is influencing the Regulators and their decision making because there are inherent flaws in the Statute. Moreover, it is brought to light that the amendment bill 2014 further reflects curtailment of independence. It also discusses how Government policies though not binding on the Regulator binds the Regulator. Section VIII defines a Regulator, how it can improve the system given the autonomy and whether the statutory Regulators are real Regulators or the Courts are. Section IX shall be a comparative analysis of functioning of various countries and their present scenario in the power sector. This Section will also cover the impact of the Regulators and an analysis whether the objective of the Act is being fulfilled and why is there a need for Courts or Adjudication despite having Regulators and if there are Courts for final remedy then who actually is the Regulator. Section X shall be suggestions that can be helpful in the development of the sector. Section XI will conclude the Dissertation.

3. **REGULATOR**

i. **Evolution of a Regulator**

It need not be mentioned that days of easy oil and gas are over and exploration and production business is a highly technologically driven one and needs huge investment and continuous knowledge up gradation. Similarly days without continuous quality power are also gone and each segment of the society needs power 24*7*365 days for ach activity that goes on. The oil and gas and the power together make the energy sector of the nation with certain other contributors like the nuclear energy. In order to exploit resources to the fullest and to fulfill the demand and supply gap there needs to be proper systems in a country.

When I talk about Regulation or regulatory practices in a country to regulate a specific sector, I shall start with the evolution of Regulatory practices which date back to 1670s where regulatory practices for products and services which were of public utility and affected public interest were regulated. The whole concept started with the treaties of Sir Mathew Hale in 1670 where ferryboats and wharves were regulated. After that came the two part test for regulatory practices in the case of *Munn v. Illinois*.² The two part test was called the public utility test and was to check whether a particular commodity was a public necessity and whether there was a monopoly for the product or service. The test of necessity was to check when property devoted to public use, the owner in effect grants to the public an interest in that use and must submit to be controlled by the public for common good. The concept of monopoly in the test was that the enterprise which the public itself might undertake or whose owners relies on a public grant or franchisee for the right to conduct such business.

This followed the birth of Regulations for controlling the goods and services which were of public utility. The major principles of the Regulations governed the grant for a franchisee, substitute for competition and regulatory compact. The key elements of the Regulations were reasonable returns on investments, overall reasonableness standards to be maintained, reviewing of service and product quality,

² *Munn v. Illinois*, 94 U.S. 113 (1876), Text available on 94 U.S. 113 (1877).

control over reliability and eminent domain. Due to harsh and strict regulations and the regulatory control with the public, these enterprises started to fail and leave business creating a gap in the demand supply chain.

The alternatives methods that evolved after such market crash were the co-operative movements, then the municipal power where the Government of the territory had all the power and authority over public utility products and services. This continues for long and the State Governments and the National Governments started taking charge of all public utility services.

Now with the society growing at an ever-growing pace and increasing needs of the people with an evolving standard of life style or standards of living the Governments were under high pressure. The entire economy of the nation started depending on the energy sector because that was the major reason for industrial growth and the revolution and the globalization the world was experiencing. The whole geo-politics, development and growth depended on the energy scenario in the country and also oil and gas became the lifelines of a country's economy. Understanding that the delivery of oil and gas and power to the public were important and also that the standard of living of a nation was also majorly based on the same. Competition in the international markets was making the markets unstable and the world was thirsty for energy. Now keeping the further work specific to India and an increase in the demand-supply to fulfill its people's needs, the need for energy products was the highest and was the most important reason for an increasing need for investment in the energy sector. With the increase in demand for such public utility products and services the Government and the Government Companies started creating a monopoly as all energy and power was under Government control but again it could not satisfy the needs of the people. The major reason for such failure was the need for developing the infrastructure as well. Also the Government started realizing that for keeping pace with the development in the world energy sector has to be developed.

ii. History of Regulator

In 1900s when the whole world was developing the energy sector including the power sector was under Government control. However the Government could not keep pace with the growing needs of the people. Moreover the economic scenario of the country after the British left India was also not too stable. Thus the paying capacity of the consumers was another challenge before the Government because of which it provided major subsidies. But the whole idea of providing subsidies, and keeping control of the sector with itself when it could not invest in infrastructure was failing. In late 1900s the era of liberalization, privatization came in. the private investors were invited to invest in the energy sector, the power sector. This started showing positive graph when it came to infrastructure development. But will opening the sectors for private players there was huge competition also which needed to be regulated. The Government initially was regulating the private players entering the sector but then this became another hurdle to the growth as energy became a political instrument. Also to keep the already existing Government companies running the Government control needed to be reduced and the companies be given autonomy. Also it was realized that if the companies are asking for a higher tariff, it was because they are using it on the development of infrastructure which was much needed for continuous development. Thus, the concept of energy regulators in the country was coming up which was intended to be free from Government interference and will actually work for the betterment of the Sector.

iii. Need for a Regulator

India is the fifth largest consumer of primary energy and the third largest consumer of oil in the Asia-Pacific region after China and Japan. Due to high economic growth, and an increasing gap in the demand and supply, there is a huge need for enhancing supply of energy resources mainly Petroleum and Gas and power and regulating them. With the burgeoning domestic demand for energy, and resulting increase in household energy consumption, demand for automobiles and industrial usage of petroleum fuels, the demand for refined petroleum products and power has

increased steadily over the past few decades and the present situation shows a picture that the trend is likely to continue.

As measured by GDP at a factor cost, the oil and gas sector in India contributes to 2.44% to the total output generated in the country. The sector gives employment to 1360000 people in the nation across the value chain.³ Further the sector plays an important role in the international market as it contributes 33% and 20% of the country's total imports and exports, respectively. Oil and Gas account for 39% and 9% of the primary commercial energy supply in the nation, coal taking the lead.

In the paper I shall be focusing on the need for a Regulator, whether the Regulator should be independent, upstream sector downstream sector Regulators which are completely under the administrative control of the Government, and how though the electricity Regulators are said to be independent. Further the paper will cover whether the electricity regulator is actually independent as given in the statute, held by a number of Courts in a catena of judgments or whether it is eyewash for the public at large. This dissertation attempts to examine the role played by various actors in the Indian political system and legal system in shaping the power sector in India and the role of Statutes and policies in the Indian power sector. I shall mainly focus on the role of the statutes focusing on the power sector to reflect the actual State of affairs prevailing in India. By the end of the dissertation we will realize that Policy framework with a broader approach is the need of the minute and also complete independence of the regulators is mandatory to achieve the targets India has a vision of.

³ The Energy and Resources Institute, *TERI Energy Data Directory and Yearbook (TEDDY)*, (Teri New Delhi, 2013),

4. GOVERNANCE IN ENERGY SECTOR

Governance of energy at the Central level or the Central Government level is distributed between a number of Ministries which are the Ministry of Petroleum and Natural Gas, the Ministry of Coal, the Ministry of Non-Conventional Energy Sources, the Ministry of Environment and Forests, the Ministry of Atomic Energy, and the Ministry of Power. Further within the Ministry of Power, the Central Electricity Authority (CEA, the technical wing) works closely with individual State electricity boards (SEBs), now the utilities in power generation, transmission, and distribution of electricity after the process of unbundling. Also at the State level, there are a number of departments, agencies and authorities which work on various sub-sectors of energy. However, it is an irony that there is no say or role to play for the Ministry of Panchayati Raj functioning at the village level in rural electrification. The responsibility for comprehensive rural electrification (including quality of power and collection) is scattered in an uncoordinated fashion between different Ministries creating a big time chaos and confusion due to absence of consultation amongst each other and having a very strong impact on each other.

Being a concurrent subject under the Constitution, the States share powers with the Centre only on power, not on the other energy sources.⁴ However they do share powers on environmental regulation⁵. This distribution of powers makes co-ordination

⁴ Electricity is a concurrent subject at Entry 38 in List III of the seventh Schedule of the Constitution of India. The Ministry of Power started functioning independently with effect from 2nd July, 1992. Earlier it was known as the Ministry of Energy sources. The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry is concerned with perspective planning, policy formulation, processing of projects for investment decision, monitoring of the implementation of power projects, training and manpower development and the administration and enactment of legislation in regard to thermal, hydro power generation, transmission and distribution. The Ministry of Power is responsible for the Administration of the Electricity Act, 2003, the Energy Conservation Act, 2001 and to undertake such amendments to these Acts, as may be necessary from time to time, in conformity with the Government's policy objectives.

⁵ Powers over environment are assigned to different tiers of Indian Government. The division of environmental policy-making and allocation of environmental functions amongst the Central, State and local Governments is regulated by the Indian Constitution. The environmental subjects over which State legislatures can legislate are public health and sanitation; agriculture; communication; preservation, protection and improvement of stock and

between the different energy sources, over the country and between States difficult. The subsequent discussion shall throw some light on how it has an adverse impact and the way in which this distribution of powers is organized at the centre.

Illustration:

Environmental clearance is required for all types of power projects including nuclear, hydro and thermal under the Environmental Protection Act 1986 (EIA notification in 1994) from Ministry of Environment and Forests, Government of India⁶ which is now required under the Environment Protection Act, 1986(EIA notification in 2006) from the MOEF, GOI⁷. Site clearance is required for pithead thermal power stations and hydropower projects. Public hearing is required for all power projects. There is a prescribed application form and procedure to be followed for obtaining clearance. If forest land is involved in any power projects, clearance has to be obtained from MoEF under the Forest Conservation Act. In 1997 through a notification, MoEF has delegated some powers to the State Governments for Environmental Clearance of Power projects up to certain capacity. The Supreme Court through an Empowered Committee also plays a role in clearances.

Substantial extra costs have to be incurred at times to meet environmental standards. These costs are a given for the Electricity Regulator but there is no monitoring to ensure that the desired pollution or ecological standards that the costs

prevention of animal diseases; water; land; etc. Under List III or Concurrent List, Parliament and State legislatures have overlapping, concurrent and shared jurisdiction over 52 subjects ranging from forests, protection of wild animals, and mines and mineral development to population control and family planning minor ports, factories and electricity. The State legislatures have full powers to legislate with respect to subjects specified in the Concurrent List. But this power is subject to an important limitation, namely that the provisions of the State law should not conflict with any of the provisions of the Union law on that subject.

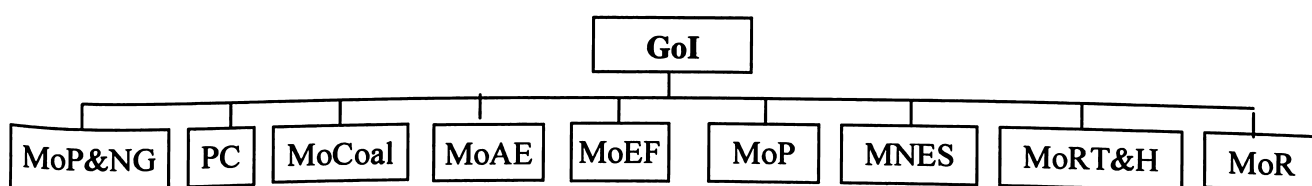
6 Environmental Impact Assessment of development projects, 1994 issued vide Notification No. S.O.60 (E) dated 27.01.1994, under clause (a) of sub-rule (3) of Rule 5 of Environmental (Protection) Rules, 1986.

7 Environmental Impact Assessment of development projects, 2006 issued vide Notification No S.O. 1533 dated 14th September, 2006 under clause (a) of sub-rule (3) of Rule 5 of Environmental (Protection) Rules, 1986.

were supposed to achieve were in fact achieved. The lists of clearances that are required for setting up any power plant in India are listed. (Refer Annexure 1)

When the utilities comes to the Electricity Regulatory Commissions for approval of projects and finances, if other clearances are not given the approval from the ERCs is withheld. However there are no provisions in which the ERCs are in correspondence with the Ministry of Environment or institutions responsible to give approvals causing unnecessary delays in the projects to start. Everybody has an attitude to shift the responsibility which is ultimately a cause of bane in the whole system and the development of the nation as a whole.

The Energy Sector at the central level has been crafted in a very organized manner. The following chart shows the organization structure of the Central Government in the energy sector. There is the Planning Commission and also it has specific departments to match those Ministries. The close protection of their turf by each Ministry makes for ineffective coordination. However if they adopted a broad approach and were of help and assistance to each other it would have been one of the most effective systems as all the departments though separate are in some way or the other related to each other and have huge impact and implications on each other. Moreover this is the only reason the Action plans and objectives targeted are not achieved within the timeframes. It is now envisaged that the Planning Commission will play this coordinating role for infrastructure but results are yet to be seen.



At the State Government level there is only electricity since other energy forms are under the Centre while electricity is a concurrent subject. The State Electricity Ministries control the Government owned enterprises that own and operate most of the generation, transmission and distribution in the State.

Finally, all Orders of regulatory bodies and sector appellate tribunals are subject to appeal and the judiciary (High Court and Supreme Court) are the Courts of Appeal. It is a sad reality that the judiciary hears these cases as well as all others and has no special benches for these sectors.

i. Status of present structure of Oil and Gas

With the increasing need of energy came the demand for Oil and Gas. The oil and gas sector is one of the six core industries in India. It is of strategic importance and plays a pivotal role in influencing decisions across other important spheres of the economy in the nation. The sector is mainly divided into two sub sectors i.e. the upstream and the downstream. The upstream sector includes all Activities from the exploration to production of oil and gas and is governed by the Ministry of Petroleum and Natural Gas. The downstream sector covers transit, marketing, distribution and sale of oil and gas to the end consumers.

The New Exploration Licensing Policy (NELP) was envisioned in 1997–98, to cater to the ever-growing gap between demand and supply of oil and gas in the country. With India's economic growth closely linked to energy demand, the need for oil and gas is projected to grow further, rendering the sector a fertile ground for investment. However the sector is highly technologically challenging and also follows high risks high returns. But investors will take the risk if the procedures, system is transparent and they just have to take a business risk. To encourage such investment and inviting private players in the sector the Government took a lot of initiatives but were these effective is the question.

To cater to the increasing demand, the Government of India has adopted several policies; including allowing 100 per cent foreign direct investment (FDI) in many segments of the sector, such as natural gas, petroleum products, and refineries, amongst others. The Government's participation has made the oil and gas sector in the country a better target of investment. Today, it wishes to attract both domestic and foreign investment, as attested by the presence of Reliance Industries Ltd (RIL) and Cairn India.

ii. **Market Size**

Backed by new oil fields, domestic oil output is anticipated to grow to 1 MBPD by FY16. With India developing gas-fired power stations, consumption is up more than 160 per cent since 1995. Gas consumption is likely to expand at a CAGR of 21 per cent during FY08–17.

Domestic production accounts for more than three-quarters of the country's total gas consumption. India increasingly relies on imported LNG; the country was the fifth-largest LNG importer in 2013, accounting for 5.5 per cent of global imports. India's LNG imports are forecasted to increase at a CAGR of 33 per cent during 2012–17.⁸

State-owned ONGC dominates the upstream segment (exploration and production), accounting for approximately 60 per cent of the country's total oil output (FY13).

IOCL operates 11,214 km network of crude, gas and product pipelines, with a capacity of 1.6 MBPD of oil and 10 million metric standard cubic meters per day (MMSCMD) of gas. This is around 30 per cent of the nation's total pipeline network. IOCL is the largest company, operating 10 out of 22 Indian refineries, with a combined capacity of 1.3 MBPD.⁹

Now after having seen the present market scenario and the oil and gas industry as a sector influencing the economy I shall now discuss the Regulators in the upstream and the downstream sector which are the DGH and the PNGRB.

iii. **Upstream: Directorate General of Hydrocarbon**

The Directorate General of Hydrocarbon (DGH) was created by a resolution of the ministry of petroleum & natural gas in 1993, against the backdrop of the opening up of the exploration and production (E& P) sector. The Government had noted

⁸ Oil and Gas India in Business, Ministry of External Affairs, *Investment and Technology Promotion*, [Accessed August 8, 2015]

⁹ Oil and Gas in Business, *Supra*.

recommendations of several committees for setting up an 'independent regulatory body.

Subsequently, in 2001, the Naresh Narad Committee¹⁰ was formed as it became necessary to examine the need for setting up of a Regulator in the upstream sector which would be the upstream hydrocarbon regulatory authority. Though, the Committee clearly recognized the need to distance regulation from Government, and give the Regulator autonomy and independence, however it was not unanimous on DGH's role. Later, the possibility of authorizing common jurisdiction with the downstream regulator (Petroleum & Natural Gas Regulatory Board) was also discussed. At present, there is no statutory upstream regulator.

All upstream Activities done by companies are regulated by the Directorate General of Hydrocarbons. The Directorate General of Hydrocarbons (DGH) was established in 1993. Ministry of Petroleum and Natural gas has complete administrative control through a resolution passed by the Government of India. The major objectives for setting up of the DGH were to promote sound management of the oil and natural gas resources having a balanced regard for environment, safety, technological and economic aspects of the petroleum Activity. The vision with which DGH was created was,

“To be an upstream advisory & technical regulatory body of international repute, creating value for society through proliferation & dissemination of E&P knowledge optimal hydrocarbon resources management & environment friendly practices”

Since its inception, the DGH has been assisting the Government in both contractual and technical matters. After introduction of the New Exploration Licensing Policy and with the signing of a large number of production-sharing contracts under seven NELP rounds, and many blocks reaching the development and production stage, the nature of work has also diversified. The DGH now has to advise and decide on a

¹⁰ In August 2011 oil ministry accepted an Ashok Chawla Committee's recommendation to make functioning of DGH more transparent, Ashok Chawla Committee , Naresh Narad Committee formed in 2001.

wide variety of issues including commercial, audit and legal ones. However, the institution lacks senior functionaries at the decision-making level, particularly in the non-technical disciplines. Because of this, many commercial aspects may have escaped close scrutiny. Therefore appointing a board than appointing a single member as DGH will be beneficial for the upstream sector as a whole. Also appointment is made by the Government and from amongst officers employed in Public Sector Undertakings, it is a normal human tendency to have a bias towards the Government Organizations than private investors and having more influence of the Government from the appointment at the post of the Regulator to extension of tenure and various other personal, professional and political reasons. The institution would benefit from the presence of several experienced functionaries from diverse backgrounds and such political pressures which may arise in case of single member will be reduced. If a proper Board is appointed such issues as given in illustration II will settle down which slows down the development of the sector.

ILLUSTRATION II :Oil Ministry looks for new DGH

NEW DELHI: Ten months after a bureaucrat was appointed as DGH, the Oil Ministry has begun looking for a technocrat to head the upstream oil regulatory body¹¹. The Oil Ministry has advertised for an engineer or geoscientist with 25 years of experience in upstream oil and gas sector to replace Shree Rajiv Nayan Choubey as the Director General of the Directorate General of Hydrocarbons (DGH). The Government had in June last year appointed Shree Choubey, a 1981 batch IAS officer of Tamil Nadu cadre.

Such issues will take a back seat if a board is made and the DGH is given autonomy and independence. This would bring in more objectivity and transparency in decision-making, and put to rest any allegations of arbitrariness. It is always preferable to have a multi-member regulator, and the institution of the DGH, which is a de-facto upstream regulator, would also benefit from having different viewpoints having a wide approach and fulfilling the vision of appointment of DGH.

¹¹ NEWS, Oil Ministry looks for new DGH, | PTI April 19, 2013

iv. **Downstream Sector: Petroleum and Natural Gas Regulatory Board**

Now we come to the downstream Regulator which is the Petroleum and Natural Gas Regulatory Board.

The Petroleum and Natural Gas Regulatory Board (PNGRB) was established in 2007 as the downstream sector regulator, tasked with regulating the refining, processing, storage, transportation, distribution, marketing and sales of petroleum products and natural gas. It does not, however, have the power to authorize refinery infrastructure construction, which is controlled by MoPNG, and also has no role in market pricing, or pricing policy. The key practical function of the Board relates to

Its role as court of arbitration in disputes within the downstream sector;

Its powers to release tenders for, and grant of authorization to lay, build, operate and expand cities natural gas distribution networks.

PNGRB has powers to investigate and litigate against downstream operators for monopolistic behavior; register entities to market and retail petroleum products, and monitor these entities for cases of adulteration; authorize operators to lay product pipelines, and determine whether pipelines are private- or common-carrier (based on specific criteria); and regulate access to pipelines and pipeline transportation rates. PNGRB also monitors prices through the downstream value-chain, including the adherence to maximum prices set by the Government of India; and determines and enforces technical standards and specifications relating to downstream Activities. The establishment of PNGRB is clearly a necessary step in the evolution of India's downstream sector still in the process to mature providing investors with greater legal certainty and more transparent regulatory oversight and arbitration. However, the GoI has established a Regulator which is toothless as it has no authority over the two key areas of product pricing and refinery investment which are the major segments of downstream.

Appointment of Regulators plays an important role. The Petroleum and Natural Gas Regulatory Board is appointed by Government like the DGH and are working as per the Government rules. At the same time in case of PNGRB, the Regulator is barred

from Government or commercial employment for two years post serving as a Regulator. This seems rather onerous and might discourage suitable candidates.

Sad but true is the fact that the Board concentrates on transportation and marketing but does not have tariff-setting powers. The Regulator has powers to license the marketing of notified petroleum and gas products, establishing & operating LNG terminals, to lay, build, operate and expand as common carrier, declare designated pipelines as common carrier, regulate access & transportation rates to the common carrier, while funding is to be independent and not part of the Government budget.

For notified products the Regulator is to ensure adequate availability, ensure price information at retail level, prevent profiteering, secure equitable distribution and maintain an information data bank. Government can give directives to the Regulator and is required to consult the Regulator before doing so but only 'where possible'.

As far as enforcement powers are concerned the Regulatory Board can use the CBI for conducting investigations, a useful provision not in the legislation for other independent regulatory bodies like the DGH or the ERCs. It can impose civil penalty of Rs 1 Crore & Rs 10 lakh per day and for profiteering impose a penalty up to 5 times of unfair gains made or Rs 10 Crore whichever is higher.¹² The Chairman of the

¹² Regulation 28. Civil penalty for contravention of directions given by the Board :-

In case any complaint is filed before the Board by any person or if the Board is satisfied that any person has contravened a direction issued by the Board under this Act to provide access to, or to adhere to the transportation rate in respect of a common carrier, or to display maximum retail price at retail outlets, or violates the terms and conditions subject to which registration or authorisation has been granted under section 15 or section 19 or the retail service obligations or marketing service obligations, or does not furnish information, document, return of report required by the Board, it may, after giving such person an opportunity of being heard in the matter, by order in writing, direct that, without prejudice to any other penalty to which he may be liable under this Act, such person shall pay, by way of civil penalty an amount which shall not exceed one Crore rupees for each contravention and in case of a continuing failure with additional penalty which may extend to ten lakh rupees for every day during which the failure continues after contravention of the first such direction : Provided that in the case of a complaint on restrictive trade practice, the amount of civil penalty may extend to five times the unfair gains made by the entity or ten Crore rupees, whichever is higher.

Regulation 29: Orders passed by Board deemed to be decrees :- Every order made by the Board under this Act shall, on a certificate issued by an officer of the Board, shall be executable in the same manner as if it were a decree

Regulatory Board is to be selected by a Search Committee comprising only of Secretaries to Government and Government is to decide on termination of the Regulators. This always poses a threat to the Regulator to take a non arbitrary decision in the interest of the sector. The Regulator does not in the present Draft oil and gas regulatory legislation have powers to regulate trading, markets, bulk use, grid code, ownership of pipelines, determine gas tariffs, etc despite having the infrastructure, required experience and knowhow and also the implications of such legislations and policies.

of a civil court : Provided that where an appeal lies against an order of the Board and no appeal is preferred then the order of the Board shall be deemed to be a final decree under this section on the expiry of the period allowed for preferring an appeal against such order before the Appellate Tribunal.

5. **POWER SECTOR**

Electricity is a concurrent subject. It is present as Entry 38, List III of the Seventh Schedule to the Constitution of India. Both the Parliament and the State Legislation have the power to legislate over this subject. However, Central legislation in any case shall prevail over the State Legislation. There is only one exception to the aforementioned rule i.e. when State enacts legislation with Presidential Assent (Under Article 254), then the State Legislation will prevail.

i. **Evolution of Power Sector**

The evolution of the Electricity Sector in the Country is prior independence and post independence.

Prior to the enactment of the Electricity Act 2003, there were a series of legislations governing the electricity sector. The governance of electricity sector started in the early 1900s with the passage of Indian Electricity Act, 1910. The Central laws in the electricity sector were the Indian Electricity Act, 1910, the Electricity Supply Act 1948 and the Electricity Regulatory Commissions Act, 1998. Then there were various State Reform Acts which were enacted by the States of Orissa, Haryana, Andhra Pradesh, Karnataka, Uttar Pradesh, Rajasthan, Madhya Pradesh, Delhi, Uttaranchal and Gujarat. Various State Notifications were there establishing the State Regulatory Commissions under the ERC Act. The States which notified the State Regulatory Commissions were Maharashtra, West Bengal, Tamil Nadu, Himachal Pradesh, Uttar Pradesh and Punjab.

Now seeing the development of laws in the power sector we first review the Indian Electricity Act, 1910. The major focus of the Act was on licensing of supply of energy which was then in its infancy. Even though the Act envisaged growth of the electricity industry in the country through private licenses it marked the licenses to supply in a particular area only. During the early 1900s which was the pre independence era power was not regulated. Moreover the transmission of power was not considered a separate or independent Activity but was a part of the supply business. Due to poor transmission and supply infrastructure the status of demand and supply was poor as a result of which supply was confined only to urban areas. Thus

the Act also created a legal framework for laying down of wires and other works relating to the supply of electricity. The Government Companies at that time had complete authority to lay lines and do other works on land owned by private owners under the authority of it being the telegraph authority. The charges of electricity were then determined and capped by the State Government.

With the change in the demand of electricity there was a need for evolving the present governance and legal structure for the power sector development and growth. Then came the Electricity Supply Act 1948 which mandated the creation of State electricity boards. These State Electricity Boards then had the responsibility to arrange for power to supply it within the State. With this Act came the Central Electricity Authority whose major function was to set and check the technical standards for transmission and supply of electricity. The responsibility of determination of tariff for electricity was the duty of the State Electricity Boards but they did not have any functional or professional independence to determine tariffs and were interfered with by the State Governments. Over a span of time the performance of the State Electricity Boards started to deteriorate on account of various factors like governance issues, no independence, unnecessary Government interference, no professionalism, no transparency, increase in the cross subsidies and lack of responsibility for the deterioration of the system or the need for development which could not be catered to.

With the need of development in the system was the need to develop the legal framework. Thus, came the Industrial Policy of 1951 which reserved the generation and supply of electricity to Public Sector. With this policy was another setback to the system wherein the States began to take over the private licensees functions and the assets and the investments of the private licensees were transferred and vested in the State Electricity Boards. Another amendment that was enacted was the Electricity Supply Amendment Act in the year 1976 which stated that the Government generating companies only were recognized under the Act and Private generating companies were not allowed. Moreover these Government generating companies were allowed operations without a license. Also it was made clear that the price, terms and conditions for sale of power by the generating company were to be determined by the appropriate Government. Further there was another amendment enacted in the year

1991 in the Electricity Supply Act, 1948 which changed the provisions for generating companies and again private sector generation was allowed. All these amendments created a huge chaos in the sector.

In the year 1995 the transmission and supply companies were under huge debts and were on the verge of bankruptcy. The companies went to international financial institutions for loans. However, the World Bank laid down major criteria for these companies to qualify for taking loans. The Companies had to unbundle themselves from the Government and become independent Corporations registered under the Companies Act 1956 for generation, transmission and distribution of electricity. This involved transfer of assets and staff into successor companies. There had to be an independent Regulator.

All of the above led to the enactment and enforcement of the State Reform Acts in many States post 1995. Beginning with Orissa, number of States enacted power sector reforms Act. Independent Regulatory Commissions were established under the State Acts and the regulatory powers earlier exercised by the State Governments and the State Electricity Boards were then vested with the State Electricity Regulatory Commissions. Thus, came the need for the enactment of Electricity Regulatory Commissions Act in 1998. The Act specified the constitution of a Central Electricity Regulatory Commission and the State Electricity Regulatory Commission. The Act was further leading to the recognition of transmission as a separate or distinct Activity than distribution. Transmission was made a licensed activity and the Central and the State Transmission Utilities were formed. There were proper allocation of functions to the Regional Load Dispatch Centre and the State Load Dispatch Centers.

With the policies encouraging private sector participation in generation, transmission and distribution and the objective of distancing regulatory responsibilities from the Government to the Regulatory Commissions there was a need for harmonizing and rationalizing the provisions of the three statutes, i.e. the Indian Electricity Act, 1910 and the Electricity Supply Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The need for a self contained comprehensive

legislation where one statute does not contradict with the other and there is no confusion as to what provisions supersedes the other provisions arose. Accordingly, it became necessary to enact a separate legislation which would take care of the chaos in the power sector and was self sufficient for the regulation of the Power Sector. Also it was mandatory to provide for newer concepts which came up with the development in the sector and also as a result of need for trade and commerce. It needed to take care of issues like open access, power trading, promoting competition, encouraging investment in the sector to meet the demands of the population and increasing development and industrialization. It was also important to give the States there independence and make them responsible for development of the power sector in their territory. Thus the Electricity Act was enacted in the year 2003 to satisfy all the above mentioned requirements.

ii. **Electricity Act, 2003**

The Electricity Act, 2003 was enacted with the objective of achieving a qualitative and quantitative transformation of the electricity sector through a new paradigm. The Electricity Act became effective on 10th June 2003 consolidating the Central Electricity laws repealing the Indian Electricity Act, 1910, Electricity Supply Act, 1948 and the Electricity Regulatory Commissions Act 1998. State Acts continue to apply except where they were inconsistent with the provisions of the Electricity Act, 2003. However, transitional period for continuation of the repealed laws and the State Acts in some aspects was for one year.

The Act was enacted with the objective to consolidate the laws relating to generation, transmission distribution of electricity, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumer and supply of electricity to all areas rationalizing electricity tariffs, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution and functioning of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal of Electricity and for matters connected therewith and incidental thereto. It was realized that the growth of economy calls for a

matching rate of growth in the infrastructure facilities. The growth rate of demand for power in developing countries is generally higher than the Gross Domestic Product. There was a need for the growth in power sector to enable the shift where the power sector being funded mainly through budgetary support and external borrowings to a State would function on commercial lines and the sector itself can generate enough profits to fund its own expansion.

iii. Present Scenario of the Power Sector

Power is one of the most critical components of infrastructure crucial for the economic growth of the country and welfare of its people. The existence and development of adequate infrastructure is essential for sustained growth of the Indian economy and development of the nation as a whole.

India's power sector is one of the most diversified in the world. Sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste. With the increase in the population, standard of living, per capita income the demand for electricity has increased rapidly in the country and is expected to rise further in the years to come. In order to meet the increasing demand for electricity in the country, massive addition to the installed generating capacity is required. India has the fifth largest power generation capacity in the world.¹³ India's installed capacity stood at 272.5 gigawatts (GW), as of FY15. Thermal power, the largest component, was 189.3 GW, followed by hydro 41.6 GW, renewable energy 35.8 GW and nuclear 5.8 GW. India's total power generation capacity has increased at a Compound Annual Growth Rate (CAGR) of 9.4 per cent over FY09–15.

India is the third largest producer of electricity in the world. In FY15, India generated 1,048.7 terawatt-hours (TWh) of electricity. Over FY10–15, electricity production expanded at a CAGR of 6.3 per cent. As per the 12th Five Year Plan, India

¹³ Oil and Gas in Business, Supra.

is targeting a total of 88.5 GW of power capacity addition by 2017, of which, 72.3 GW constitutes thermal power, 10.8 GW hydro and 5.3 GW nuclear¹⁴.

Renewable energy is fast emerging as a major source of power in India. Wind energy is the largest source of renewable energy in India. It accounts for an estimated 60 per cent of total installed capacity (21.1GW). There are plans to double the wind power generation capacity to 20GW by 2022. India has also raised the solar power generation capacity addition target by five times to 100 GW by 2022¹⁵.

The Government of India is continuously supporting growth in the power sector. It has de-licensed the electrical machinery industry and also allowed 100 per cent Foreign Direct Investment (FDI) in the sector.

With many bilateral nuclear agreements in place, India is expected to become a major hub for manufacturing nuclear reactors and associated components. However at present India looks forward to enter into contracts with Russia to import nuclear reactors. Foreign participation in the development and financing of generation and transmission assets, engineering services, equipment supply and technology collaboration in nuclear and clean coal technologies is also expected to increase. However the generation of power from nuclear sources does not come within the ambit of the energy regulators or the State Government.

iv. Market Size

Indian power sector is undergoing continuous changes which are significant and has redefined the industry outlook. Sustained economic growth continues to drive electricity demand in India. The Government of India's focus on attaining "24*7 Power for All" has accelerated capacity addition in the country. At the same time, the competitive intensity is increasing at both the market and supply sides (fuel, logistics, finances, and manpower).

The Planning Commission's 12th Five-Year Plan estimates total domestic energy production to reach 669.6 million tones of oil equivalent (MTOE) by 2016–17

¹⁴ Oil and Gas in Business, *Supra*

¹⁵ Discoms Problems and Rescue Plans, *InfraLive*, 15.10.2015, Pg.26.

and 844 MTOE by 2021–22. By 2030–35, energy demand in India is projected to be the highest among all countries according to the 2014 energy outlook report by British oil giant, BP.

As of July 2015, total thermal installed capacity stood at 191.6 gigawatt (GW), while hydro and renewable energy installed capacity totaled 41.9 GW and 36.5 GW, respectively. At 5.8 GW, nuclear energy capacity remained broadly constant compared with the previous year. Indian solar installations are forecasted to be approximately 2,200 megawatt (MW) in 2015, according to Mercom Capital Group, a global clean energy communications and consulting firm.

India's wind energy market is expected to attract investments totaling Rs 1,00,000 Crore (US\$ 15.7 billion) by 2020, and wind power capacity is estimated to almost double by 2020 from over 23,000 MW in June 2015, with an addition of about 4,000 MW per annum in the next five years.

v. **Economy**

Over the last one year, India has made an impressive progress in adding to the size of its overall power generation capacity. In the month of September, power minister Piyush Goyal presented the achievements of the power sector where he cited an increase of 8.4% in power generation in the last year¹⁶. However due to various factors India's average plant load factor (PLF) has dropped to a 15-year low of 65.1% which is now worrying the Government and Regulators are requested to relax their PLF norms. More importantly, it ought to push officials in the policymaking circle towards undertaking long-pending structural reforms in the sector.

By expediting, although not through radical reforms, the clearance of supply-side bottlenecks, power generation is one front in which the Government has indeed done well. The assurance of coal linkages in particular has brought life back to power generation units that were idle without fuel. Moreover, additional facilities have been added to the nation's total power capacity over the last one year. But it needs to be noted at the same time, that it cannot be said of the scant attention that the Government

¹⁶ Discoms Problems and Rescue Plans, Supra.

has directed towards distribution channels. A paradoxical situation where State electricity boards (SEBs) lack the means to buy power from power generation units, leading to surplus power in the hands of power generators and a record low PLF, sums up the poor State of power distribution. In short, the inability of successive Governments to implement crucial pricing reforms and follow regulatory principles has remained the perennial Achilles' heel of the Indian power sector.

For long, SEBs were tasked with the role of procurement of power from power generators, and its distribution to consumers. Being Government owned utilities and under complete control of State Governments, they have served as tools of populism year after year. While free power to farmers has been the one example often in the limelight, the beneficiaries of subsidized power are a far larger group distributed across interest groups. Power theft is another major factor adding to the huge losses incurred by SEBs. The Governments do not take the Regulators seriously.

The result has been the balance sheets of State Electricity Boards have been severely dented by debt as SEBs borrowed heavily to compensate for the lack of revenues from consumers. Here the regulators are left helpless as these are Government owned companies and do not have autonomy. The total debt burden of SEBs has continued to increase at a rapid pace over the years, with several studies pointing out that the debt burden is posing a threat to the financial sector and further could even pose a systemic threat to the banking sector. The problem can be attributed to the fact that the can of pricing reform and the procedure when it comes to implement has been kicked down the road continuously owing to populist pressures.

The ad hoc solutions to the piling debt burden on SEBs have been periodic bailouts of SEBs sponsored, to different degrees, by both the central and the State Governments. These include a plan costing Rs.35, 000 Crore in 2001, and another bailout costing a much higher bill of Rs.1.9 trillion in 2012. The present Government obviously has the choice to opt for a similar bailout that provides more temporary breathing space to SEBs. It would also ensure that the power sector continues to be mired in debt and production inefficiencies. However if the Regulatory framework is

implemented properly and without any populist pressures it can still start changing the economic condition of these SEBs now the State owned distribution companies.

The other way out is to open power distribution to private capital and free market competition. This can only happen through pricing reforms that allow distribution companies the freedom to charge market prices. The business of bailing out distribution companies is not only a cumbersome one, but one that—by allowing inefficient public firms to remain on life support system forever obviously hinders progress towards enacting essential structural reforms. These can be overcome only by completely de-socializing the power distribution sector.

Clearly, given the country's tryst with shortages and even total blackouts, power distribution reforms cannot come a moment sooner. The exclusive focus on increasing power generation capacity because generation is not influenced by the political issues and populist approach will not benefit consumers at the end of the value chain unless distribution is sorted out. Overcoming this barrier will require taking radical steps which go against the grain of populism that has dominated power policy till date. This we shall discuss in the Section wherein the gas policy notified by the Government is analyzed and the independence of the Regulator comes into question. Whether the Government at the centre will take such steps to ensure regulatory independence with the ERCs and will give autonomy to the Distribution companies which are State owned remains to be seen.

vi. **The Road Ahead**

The Indian power sector has come a long way since the laying down of the basic framework in 1910 right up to the Electricity Act of 2003, which brought about necessary changes to an evolving sector. The Act introduced and brought provision on open access, power trading, regional/national electricity market, independent system operator, delicensing of generation, performance based regulation, anti-theft etc. To govern the sector better and handle its requirement, the Electricity Amendment Bill, 2014, is under consideration. However there has been no consideration on independence of the Regulatory framework. In spite of providing the Regulators with more autonomy and removing Government influence by way of removing

Governments say from the procedure for appointment, rules of service, it has further reduced the tenure of the Regulator from five years to three years and there is an option for reappointment for three further years. The union cabinet approved amendments to the overarching Electricity Act, 2003, through the Electricity Amendment Bill, 2014, on 11 December 2014. The proposed amendment will have a profound impact on the Indian power sector. It touches upon different aspects of the sector, right from segregation of carriage and content to renewable energy and open access to tariff rationalization and so on. It has seen a mixed response: being hailed as historic by some and, at the same time, inviting the ire of a few State Governments. The bill is the segregation of distribution and supply functions, which will provide the consumer with more choices. However it has to be realized that many State Governments have not attained a level of efficiency in operating transmission and distribution as different businesses and Government interference is a major reason that the regulators have also not been able to achieve the objective of the Act and provide for power to all consumer base and distribution companies are still under huge debts.

The Bill also aims to infuse healthy competition in each distribution area, and deals with aspects pertaining to promotion of renewable energy, open access, smart grid, and ancillary services and so on. Some of the amendments are seen as much-needed and addresses the major caveats and limitations of the Act. These proposed amendments necessitate significant reorganization of the distribution and supply businesses of existing licensees, propose significant measures for renewable energy promotion, including obligations for thermal power developers to establish renewable generation capacity and provide measures for tariff rationalization and enhancement in grid safety and security. The key intent behind the amendments is to allow competition and better customer service without significantly increasing tariff.

Key implications of amendments to the Act:

- Separation of carriage from content
- Boost for renewable power generation-renewable generation obligation (RGO)

- More powers to ERCs but with political pressure always on the service of Members and Chairman.
- Provision for open access, removal of cross-subsidy if procured from renewable energy sources
- Tariff rationalization.
- Separation of distribution and supply business to promote competition in supply segment

Some of the perceived issues in the carriage and content separation as proposed in the amendment are:

- Transfer of supply or distribution functions to a new entity and ambiguity in provisions on ownership of the transferee can lead to State Government's discretion during the transfer
- To execute this change, a transfer scheme is to be made by the State Governments for segregation of content and carriage businesses. However, it needs to effectively address hand-picking of consumers by the supply licensee, clearly defining the area of a supply licensee, defining the entities' functions and responsibilities, ownership, treatment of existing power procurement commitments, tariff and subsidies, transfer of resources, technical and financial loss allocation, etc.
- No clear provision by State Governments for consultation with existing licensee in preparation and notification of transfer scheme
- Ambiguity over 'incumbent' supply licensee
- Cherry-picking of high-value consumers by supply licensee
- Uncertainty related to business continuity of existing distribution licensees and recovery of their investments

- Impact on the financial health of State-owned utilities; it is perceived that infusing more supply licensees may exacerbate the already ailing State utilities
- Proposed amendment silent on detailed methodology and the process to be followed to determine ceiling tariff. Measures for renewable energy promotion including obligations for thermal power developers to establish renewable generation capacity
- Implementation remains a concern for imposing penalty for not adhering to RPO or RGO Cross-subsidy surcharge will not be levied for open access based on renewable energy sources
- As renewable energy targets get more ambitious what remains to be seen is if RE power procured via open access match up to cost of conventional power

The Government's immediate goal is to generate two trillion units (kilowatt hours) of energy by 2019. This means doubling the current production capacity to provide 24*7 electricity supply for residential, industrial, commercial and agriculture use¹⁷.

The Government had revised the National Solar Mission with the electricity production target of 100,000 MW by 2022. The Government has also sought to restart the stalled hydro power projects and increase the wind energy production target to 60 GW by 2022 from the current 20 GW.

¹⁷ Parliamentary Standing Committee on energy in its report tabled in the Lok Sabha on August 10, 2015.

6. ELECTRICITY REGULATOR

i. Present Governance Scenario

India has separate Ministries for different types of Energy ranging from atomic to oil and gas to power. Though the power sector comes under the ministry of power the resources which generate power are under different ministries. Power generation from all sources from non-conventional sources like gas and coal to conventional resources which include geothermal, hydroelectric, solar and wind are governed by the Ministry of power. However nuclear power is not within the ambit of the same and has altogether a different governing regime. At present Power is the only part of the energy sector in India to have independent regulatory mechanisms which derive their power from the statute governing it (covering licensing, trading, tariffs, transmission and distribution) there are Regulators separately for the Centre and the States maybe because power is a concurrent subject in the Indian Constitution and also development of the power sector was considered essential for the development of the nation as a whole. There is a Central Electricity Regulatory Commission commonly known as CERC, and there are individual State Commissions commonly known as SERCs, though smaller States and union territories are permitted to have joint Commissions and therefore are regulated by Joint electricity Regulatory Commissions commonly known as JERCs.

The CERC regulates the Central Government owned sector and interstate issues and the SERCs is responsible for matters within a State.

The Electricity Act 2003 (Section 66) attempts to provide for some coordination between the Central and State Commissions which was not there in the Electricity Regulatory Commissions Act 1998. Moreover to ensure such co-ordination there are two institutional mechanisms also specified within the Statute. One is a coordination forum consisting of the Chairperson and Members of appropriate Commissions, Chairman CEA, and representatives of generating companies and transmission licensees engaged in interstate transmission of electricity and the second, a Forum of regulators consisting of the chairpersons of the CERC and the SERCs. This is in addition to the voluntary Forum of Indian Regulators FOIR. FOIR consists

of all present and former Regulators, presently only in electricity, that was formed in 1998 and has been functioning ever since.

Another method that provides coordination and consistency in approach is that the Act gives the Central Commission and the State Commissions the responsibility of laying down regulations and rules on the specified matters. These are Section 178 and 181 under which these Commissions can legislate under their legislative powers. Some areas where they can legislate are grid code; rates, charges and terms and conditions in respect of intervening transmission facilities; payment of transmission charges and a surcharge for providing non-discriminatory open access; reduction and elimination of surcharge and cross-subsidies; proportion of revenues from other business to be utilized for reducing transmission and wheeling charges; duties of electricity traders; standards of performance of licensee or class of licensees; details to be furnished by licensee or generating company for determining tariff in respect of generation, transmission and distribution.

On the other hand, there is no statutory provision for coordination beyond electricity even with regard to the major fuels used in generating thermal power in India, namely, coal and gas. Usage for power generation is at present the single most important usage of coal and gas. However, these fall under different Ministries at the Centre. Power prices are regulated, with end prices to consumers being capped by the SERCs and any increase in fuel prices will not affect end consumer prices of power. The coal and gas companies concerned, with final decision by their controlling Ministries, determine the prices of coal and gas which is entirely State-owned in the case of coal and largely so for gas. Price coordination between the Power Ministry and the others is poor and largely ineffective thus effecting the functioning of the Regulators. The Power Regulators have absolutely no role in the fixation of fuel charges though the majority of the regulated cost comprises of fuel charges importantly. It can be rightly said they have no opportunity to examine the validity in increase in fuel price which impacts which impacts the generation and in turn impacts the distribution companies.

Environmental clearances add substantially to power project costs for generation and transmission. Delays in clearances lead to time and cost overruns. There is little or no coordination between the different sectors. Nor is the Power Regulator required to enforce orders of Government departmental environmental Regulators on matters such as pollution standards or fly ash utilization. Thus even though the Regulator is striving hard to meet the objectives such delays leave them helpless. The companies who do not work to get approvals from Government departmental environmental regulators also then give these reasons for delays which were due to their own casual approach or conduct and at times take pass trying to receive these approvals to no end results.

Similarly railway freight is an important cost element in coal prices and has been rising, thus affecting power costs. However the Power Regulator has no say in such freight increases. On the other hand, railways pay a higher cost for power as compared to other consumers. Railways have had little recourse except to set up their own captive generation. Similar is the case with gas. Again the Power Regulator cannot scrutinize the price of gas though it is an important element in power costs and tariffs. Prices for Gas are lower for the public versus the private sector. Government has a gas utilization policy that sets use priorities. The Petroleum and Natural Gas Regulatory Board has no role either in such price determination or in utilization. These are done privately by the Ministry. The availability of gas is another issue. In India the gas plants are ready for commissioning but due to non availability of domestic gas and imported gas at astronomical rates results in shooting up of tariffs. This further leads to higher cost of generation at which the Distribution Companies do not buy and enter into Power Purchase Agreements resulting in power plants lying idle in wait for gas to be available at lower prices.

There is a similar issue in hydropower when the project is linked to using water for irrigation. A share of the capital and running costs must rightly be charged to water and be reflected in the tariffs of its users. However this happens to a very limited extent and substantial unpaid amounts remain in the books of the irrigation department. Power is charged the full costs and the power consumer pays for much of what should have been charged to water.

All the above experiences show that at present the whole energy sector including power sector though said to have an independent regulator is under substantial Government ownership, control and management. This needs a drastic change if the targets set by different ministries in different portfolios intend to reach their set objectives. Mostly all ministries have Action plans and roadmaps to be achieved by 2025 but with such ownership, control and management and no autonomy with the Regulator it still remains a distant dream. However providing the Regulators with the autonomy, appointment of professionals having specialized knowledge and experience in the specific sector and no Government interference in the appointment and rules of service of the Regulator can go a long way as regulators will be able to make decisions for the benefit of the sector without any fear of the Government and biases.

Moreover giving the power sector regulator a say in the tariffs of fuel or other areas related to power or the authority to get environmental Regulations and directions enforced when it comes to making a new plant or laying down of transmission lines can speed up the whole process. Also when the private players will be confident that the Regulators are not influenced by the Government there can be expected to be a large private sector investment in each of the different energy types. Trading in energy has begun and markets will become important in coming years. Rural electrification is an important political issue and holds opportunities for investment and challenges for coordination and regulation.

ii. **Authority / Regulator at the Central Level**

i. **Central Electricity Authority (CEA)¹⁸**

ii. **Central Electricity Regulatory Commission (CERC)¹⁹**

¹⁸ Central Electricity Authority (CEA) is a statutory organization originally constituted under Section 3(1) of the repealed Electricity (Supply) Act, 1948, since substituted by Section 70 of the Electricity Act, 2003. It was established as a part-time body in 1951 and made a full-time body in 1975. The functions and duties of CEA are delineated under Section 73 of the Electricity Act, 2003.

¹⁹ CERC is a statutory body functioning under sec - 76 of the Electricity Act 2003 (CERC was initially constituted under the Electricity Regulatory Commissions Act, 1998 on 24th July, 1998)

In all the technical and economical matters the Central Government is guided by the (Central Electricity Authority) CEA. While the authority (CEA) is a statutory authority constituted under the Electricity Supply Act 1948 hereinafter repealed by the Electricity Act, 2003, where similar provisions exists, the office of the CEA is an “attached office” of the Ministry of Power. The CEA is responsible for the technical coordination and supervision of programmes and is also entrusted with a number of statutory functions. So it is clear from the Act that though the authority is a statutory authority it is completely linked with the Government functionality and thus has no autonomy.

When it comes to heading this statutory body, it is headed by the Chairman who is the ex-officio Secretary of the Government of India and comprises six full time members of the CEA of the rank of ex-officio Additional Secretary to the Government of India, who are designated as Member (thermal), Member (hydro), Member (Economics and Commercial), Member (Power systems), Member (Planning) and Member (grid operation and distribution). The qualification nowhere mentions specialization in power sector and also all are Government appointees. Thus, it can be said that the statutory authority though derives its powers from the statute are still not autonomous and might have a large component of Government interference. The CEA has been empowered by the statute to perform such functions and duties as the Central Government may prescribe or direct, and in particular to

[Advise the Central Government on the matters relating to the national electricity policy, formulation of short-term and perspective plans for the development of the electricity system and co-ordinate the Activities of the planning agencies for the optimal utilization of resources to sub serve the interests of the national economy and to provide reliable and affordable electricity for all consumers;

- a) specify the technical standards for construction of electrical plants, electric lines and connectivity to the grid;
- b) specify the safety requirements for construction, operation and maintenance of electrical plants and electric lines;

- c) specify the Grid Standards for operation and maintenance of transmission lines;
- d) specify the conditions for installation of meters for transmission and supply of electricity;
- e) promote and assist in the timely completion of schemes and projects for improving and augmenting the electricity system;
- f) promote measures for advancing the skill of persons engaged in the electricity industry;
- g) advise the Central Government on any matter on which its advice is sought or make recommendation to that Government on any matter if, in the opinion of the Authority, the recommendation would help in improving the generation, transmission, trading, distribution and utilization of electricity;
- h) collect and record the data concerning the generation, transmission, trading, distribution and utilization of electricity and carry out studies relating to cost, efficiency, competitiveness and such like matters;
- i) make public from time to time the information secured under this Act, and provide for the publication of reports and investigations;
- j) promote research in matters affecting the generation, transmission, distribution and trading of electricity;
- k) carry out, or cause to be carried out , any investigation for the purposes of generating or transmitting or distributing electricity;
- l) advise any State Government, licensees or the generating companies on such matters which shall enable them to operate and maintain the electricity system under their ownership or control in an improved manner and where necessary, in co-ordination with any other Government, licensee or the generating company owning or having the control of another electricity system;

- m) advise the Appropriate Government and the Appropriate Commission on all technical matters relating to generation, transmission and distribution of electricity; and
- n) Discharge such other functions as may be provided under this Act.]

The Section starts with functions and duties as the Central Government may prescribe and the functions include advising the Central Government. The Section before giving the powers to advise binds it to the directions of the Central Government. How is the authority supposed to exercise its authority in a non arbitrary manner when it is at each step to be directed by the Central Government?

CERC is a statutory body constituted under the provisions of the erstwhile Electricity Regulatory Commissions Act, 1998 and continued under the Electricity Act 2003 which has since repealed inter alia the ERC Act, 1998. The main functions of CERC are to regulate the tariff of generating companies owned or controlled by the Central Government, to regulate the tariff of generating companies other than those owned by the Central Government, if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State, to regulate inter-State transmission of energy including tariff for transmission utilities, to grant license for interstate transmission and trading and to advise the Central Government in formulation of the National Electricity Policy and the National Tariff Policy.

State electricity Regulatory Commissions (SERC)²⁰

SERCs are statutory bodies responsible for regulating the power sector within the territorial boundaries of the State. The concept of SERC as a statutory body responsible for determination of tariff and grant of licence at intrastate level was

²⁰ The State Electricity Regulatory Commission has been envisaged in the Electricity Regulatory Commissions Act, 1998. As per Section 17(1) of the Act, the State Government may, if it deems fit, establish an Electricity Regulatory Commission for the State. "State Commission" under sub-Section 64 of Section 2 of the Electricity Act 2003 means the State Electricity Regulatory Commission constituted under sub-section (1) of section 82 and includes a Joint Commission constituted under sub-section (1) of section 83;

envisaged in the erstwhile Regulatory Commissions Act 1998 and has been continued in the Electricity Act 2003 which has since repealed inter alia the ERC Act, 1998.

The major responsibilities of the SERCs are to determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale bulk or retail sale within the State periphery, to issue licenses for intra State transmission, distribution and trading, to promote cogeneration and generation of electricity from renewal sources of energy etc. The SERCs came up after the formation of the CERC. The CERCs regulates electricity tariffs and transmission up to the boundaries of the States.

iii. **Objective and Impact**

After having going through the Statute and having handled cases in the Uttarakhand Electricity Regulatory Commission it is my strong view that public opinion has to recognize its value. However it will only happen once the public sees the results in terms of improved quality, availability and in due course reduced tariff, no tariff shocks, and reduction in cross subsidy. Ultimately it is only the independence of the regulators that can guarantee strong public opinion. However, presently the independence of the Regulators is just an eye wash for the general public. While legislation will help, it is most important that the financial and human resources for Regulatory Commissions are kept out of the scope of Government approvals. It has been observed that many Regulatory Commissions are coming up with approach papers on tariff.²¹ Clearly, these approach papers will enunciate alternatives. These could be different from the existing practices. The floating of these alternatives might cause some uncertainty but that kind of uncertainty is due to the transition to independent regulation, and is hence unavoidable. It will get resolved as soon as the Commissions announce the principles and the terms and conditions on which they will

²¹ Central Electricity Regulatory Commission, Uttarakhand Electricity Regulatory Commission, Chhattisgarh Electricity Regulatory Commission, Punjab Electricity Regulatory Commission are some of the Commissions who have already published their concept papers.

regulate tariffs. This process which should have been done in the last one decade is now starting and is taking time given the need of transparency.

The process now involves the submission of petitions providing adequate opportunity to the petitioners to file rejoinders and responses. The process also demands that the information used in the final orders are available to all parties which include the public at large also in case of tariff petitions before the final hearing is scheduled or held. If the Commissions hold legalistic proceedings, they are unavoidable, given the nature of process which is subject to appeal. Now, another question that comes up is if the matter can go in an Appeal then who is the Regulator and if there is a Regulator why do we need Courts. However we shall deal with this in the coming Section of the Dissertation. But the better part is that the Regulatory Commissions are now trying to be as flexible as possible while ensuring that the required legal procedures are duly followed. SERCs have lately started realizing that they have legislative, executive and adjudicatory powers.

Among all reforms in the power sector, perhaps the most crucial is of rationalization of the tariff structure. The best instrument for the purpose is establishing independent and autonomous Regulators in each State and the irony is that Regulators have been established long back in almost all States. It is necessary to underline that if the Electricity Regulatory Commissions fail to come up to the expectations, it will be a big setback to power sector reforms. Unfortunately the experience of ERCs so far is a mixed one.

It is noted that the Act lays down that the SERCs are to be guided, inter alia, by the principles and methodologies specified by the Central Commission for determination of tariff applicable to generating companies and transmission licensees²².

²² Section 61(a) (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;

7. GOVERNMENT OR REGULATOR

The Independence of the Regulators as given by the Statute as held in various cases can only be concluded after analyzing a number of criterions. To start with I shall refer to Part II of the Electricity Act, 2003 which talks about National Electricity Policy and Plan²³ and Section 61²⁴, Section 79²⁵ and Section 86²⁶ which are the main Sections for regulation of tariff. The first criterion I am discussing is:

²³ In compliance with section 3 of the Electricity Act 2003 the Central Government hereby notifies the National Electricity Policy Dated the 12th, February, 2005 vide Resolution No. 23/40/2004-R&R (Vol.II).

²⁴ Section 61(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) multiyear 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.

²⁵ Section 79(Functions of Central Commission): -- (1) The Central Commission shall discharge the following functions, namely:-(a) to regulate the tariff of generating companies owned or controlled by the Central Government; (b) to regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State; (c) to regulate the inter-State transmission of electricity for generation and sale of electricity in more than one State; (d) to determine tariff for inter-State transmission of electricity; (e) to issue licenses to persons to function as transmission licensee and electricity trader with respect to their inter-State operations; (f) to adjudicate upon disputes involving generating companies or transmission licensee in regard to matters connected with clauses (a) to (d) above and to refer any dispute for arbitration; (g) to levy fees for the purposes of this Act; (h) to specify Grid Code having regard to Grid Standards; (i) to specify and enforce the standards with respect to quality, continuity and reliability of service by licensees; (j) to fix the trading margin in the inter-State trading of electricity, if considered, necessary; (k) to discharge such other functions as may be assigned under this Act. 79(2) The Central Commission shall advise the

i. Acts or Policy?

“Whether policies and policy guidelines which are notified by the Government bind the Electricity Commissions? Whether the term “shall be guided” used in Section 61, Section 79 and Section 86 as stated above means appropriate Commission has to mandatorily follow Tariff Policy and National Electricity Policy ignoring Regulations

Central Government on all or any of the following matters, namely :- (i) formulation of National electricity Policy and tariff policy; (ii) promotion of competition, efficiency and economy in activities of the electricity industry; (iii) Promotion of investment in electricity industry; (IV) any other matter referred to the Central Commission by that Government. (3) The Central Commission shall ensure transparency while exercising its powers and discharging its functions. (4) In discharge of its functions, the Central Commission shall be guided by the National Electricity Policy, National Electricity Plan and tariff policy published under section 3.

26 Section 86. (Functions of State Commission): --- (1) The State Commission shall discharge the following functions, namely: - (a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers; (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State; (c) facilitate intra-State transmission and wheeling of electricity;(d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;(e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee; (f) adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration; (g) levy fee for the purposes of this Act; (h) specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79; (i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees; (j) fix the trading margin in the intra-State trading of electricity, if considered, necessary; and (k) discharge such other functions as may be assigned to it under this Act.

86(2) The State Commission shall advise the State Government on all or any of the following matters, namely :-.(i) promotion of competition, efficiency and economy in activities of the electricity industry; (ii) promotion of investment in electricity industry;(iii) reorganization and restructuring of electricity industry in the State; (iv) matters concerning generation, transmission , distribution and trading of electricity or any other matter referred to the State Commission by that Government. 86(3) The State Commission shall ensure transparency while exercising its powers and discharging its functions. 86(4) In discharge of its functions, the State Commission shall be guided by the National Electricity Policy, National Electricity Plan and tariff policy published under section 3.

framed by it? A Tariff Policy framed under Section 3 of the Electricity Act, 2003 can override Regulations framed under Section 61 read with Section 178/181 of the Electricity Act, 2003? We shall discuss this by analyzing a number of case studies.

I. In Appeal No. 57 of 2015 the Hon'ble ATE held that,

“The facts of the instant case are totally different. Here it cannot be urged that the State Commission lacked inherent jurisdiction. The submission of the Appellant is that MNRE guidelines divested the State Commission of the said jurisdiction. We have already noted that MNRE guidelines are not made under the Electricity Act. They cannot divest the State Commission of the inherent jurisdiction vested in it in law. In any case, no guidelines can travel beyond the statute.”

In other judgments similar view has been taken by APTEL. The relevant extract of the judgments are quoted hereunder

II. The Full Bench judgment of this Tribunal in appeal R.V.K. Energy Private Limited & Ors. v. The Central Power Distribution Co. Ltd.²⁷

III. SIEL Limited v. Punjab Electricity Regulatory Commission & Ors.²⁸

IV. M/s. Vishal Ferro Alloys Ltd. & Ors. v. Orissa Electricity Regulatory Commission²⁹

V. M/s. Tata Steel Limited v. Orissa Electricity Regulatory Commission.³⁰

“This judgment it is conclusively held that the methodology specified in the National Tariff Policy for calculation of ‘cost to supply’ is binding on the State Commission and is required to be followed. Counsel submitted that considering the object of the cross-subsidy surcharge, the need to promote competition and the provisions of the National Tariff Policy in this regard, the Tribunal has given a mandatory direction to all the Regulatory Commissions to determine

²⁷ 2007 ELR (APTEL) 1222

²⁸ 2007 ELR (APTEL) 931

²⁹ Appeal No.57, 67 of 2011, Order dated. 02.09.2011.

³⁰ 2011 ELR (APTEL) 1022

the cross-subsidy surcharge accordingly and a specific finding is recorded in this judgment that the formula specified in the National Tariff Policy is consistent with the purpose and object of the said Act and needs to be followed by all Regulatory Commissions in the country.”

VI. Hon'ble Supreme Court of India has also taken a strong view on the independence of the Regulators. The Apex Court's decision in LML vs. State of U.P. and Others³¹ has also clearly stated that independence was the main objective of the Act. The relevant observation made by the Hon'ble Supreme Court is reproduced hereunder:

“58. Having carefully considered the provisions of the Act as also the arguments advanced in this regard, we are of the opinion that under the 1998 Act, it is the Commission concerned and in the instant case the State Commission of West Bengal, which is the sole authority to determine the tariff, of course, as per the procedure in the said Act.” The Regulations referred to earlier show that generating companies and utilities have to first approach the Commission for approval of their tariff whether for generation, transmission, distribution or supply and also for terms and conditions of supply. They can charge from their customers only such tariff which has been approved by the Commission. Charging of a tariff which has not been approved by the Commission is an offence which is punishable under Section 45 of the Act. The provisions of the Act and Regulations show that the Commission has the exclusive power to determine the tariff. The tariff approved by the Commission is final and binding and it is not permitted for the licensees, utility or anyone else to charge a different tariff.”

VII. The next judgment was rendered by the Tribunal in SIEL Limited Vs. Punjab State Commission³². The view was quite similar to the

³¹ (2008) 3 SCC 128

³² Appeal No. 4 Of 2005.

judgments already discussed above. The relevant extract from the judgment is reproduced hereunder,

“The Appropriate Commission while determining tariff under Section 61 of the Act is required to be guided by the factor and parameters enshrined therein. One of the factors on the basis of which tariff is to be determined is the consumer interest. Sub-clause (d) of Section 61 requires the Commission to safeguard the interest of the consumers and ensure that the recovery of the cost of electricity is affected in a reasonable manner. This was also one of the requirements under Section 2(2) of the Act of 1998.

The aforesaid provisions of the Act of 2003 and the Act of 1998 are not hedged in with the limitation that in case the State Government or any other authority has allocated an unwarranted cost to the generator or a licensee, it cannot be interfered with, even when such a cost may be imprudent and unjust and not in the interest of the consumers. Otherwise the cost loaded by the State Government on the Board will have to be allowed by the Commission for the purposes of tariff and the ARR of the Board. In case such a limitation is read into the aforesaid provisions, the purpose of the Act including Section 63 will be frustrated. Since the Commission has the power to determine the tariff and the ARR of a utility, it has all the incidental and ancillary powers to effectuate the purpose for which the power is vested in it. Consequently the directions or orders of the Regulatory Commission made for the purpose of determination of tariff and ARR in consonance with the provisions of the Act are binding on all the concerned parties including the State and the Board.

There is nothing in Section 61 and 62 of the Act of 2003 to show that orders relating to tariff will not bind the State Government. The State is not above law and it is bound to respect the mandate of the legislature. Otherwise tariff determination will not be in consonance with the

various factors and parameters specified in Section 61. The Commission is an independent statutory body and its directions being in terms of the Act are definitely binding on the Board whose de jure owner is the State. The ultimate end effect shall be on de jure owner viz. the State of Punjab.”

In this judgment also, the Tribunal analyzed this issue and held that State Commission is an independent authority and its finding is binding on the State Government and not vice versa.

VIII. Another important judgment in which Hon'ble APTEL has taken a firm view on the Commissions independence was in Appeal No 41, 42 and 43 of 2010. The relevant portion of the judgment is reproduced hereunder,

“

1. *Whether the policy directions issued by the State Government on 25.09.2009 for mere consideration are binding on the State Commission while discharging its statutory finding on the determination of tariff under Section 62 of the Electricity Act, 2003 read with the Regulations framed there under?*
2. *Whether any credence can be given to ARR, formulated, without adhering to the statutory provisions of the Electricity Act, 2003, National Electricity Policy, National Tariff Policy as also the orders and directions issued by this Tribunal from time to time?*
3. *Whether the State Commission is bound to follow the directions of the State Government in relation to the allocation of the power purchase costs to various categories of consumers while determining tariff which is contrary to the provisions of the Electricity Act, 2003 and the Regulations made there under?*
4. *Whether the State Commission's power to determine the tariff independently in terms of the legislative mandate can at all be curtailed*

by the State Government in exercise of the power under Section 108 of the Electricity Act, 2003? ...

The questions were analyzed and the Hon'ble APTEL took a firm view on the same and held that,

“

28. It cannot be debated that the determination of tariff is one of the core functions of the State Commission which is to be done in an independent manner. These functions have to be discharged by the State Commission by following the provisions of the Electricity Act, 2003 and the Regulations made there under. It is settled law that the State Commission alone has the powers to determine the tariff. In this context, a reference may be made to the Statement of Objects and Reasons of Electricity Act, 2003 for the purpose of appreciating the legislative scheme. The same is as follows:

“1.3 Over a period of time, however, the performance of the State Electricity Boards has deteriorated substantially on account of various factors. For instance, powers to fix tariffs vest with such Electricity Boards, they have generally been unable to take decisions on tariff in a professional and independent manner and tariff determination in practice has been done by the State Governments. Cross subsidies have reached unsustainable levels. To address this issue and to provide for distancing of Government from determination of tariffs, the Electricity Regulatory Commission Act was enacted in 1998. It created the Central Electricity Regulatory Commission and has an enabling provision through which State Governments can create a State Electricity Regulatory Commission....”

“ 3 With the policy of encouraging private sector participation in generation, transmission and distribution and the objective of distancing the Regulatory Commission, the need for harmonizing and rationalizing the provisions in the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commission Act, 1998, in a new self contained comprehensive legislation arose.

62. (1) *The State Commission is independent statutory body. Therefore the policy directions issued by the State Government are not binding on the State Commission, as those directions cannot curtail the power of the State Government in the matter of determination of tariff. The State Government may give any such policy direction in order to cater to the popular demand made by the public but while determining tariff the State Commission may take those directions or suggestions for consideration but it is for the State Commission which has statutory duty to perform either to accept the suggestion or reject those directions taking note of the various circumstances. It is purely discretionary on the part of the State Commission on acceptability of the directions issued by the State Government in the matter of determination of tariff.*

(2) *From the perusal of the impugned order it is evident that the State Commission has fully accepted and acted upon the State Government's policy directions in the light of the legal expert's opinion holding that the State Government's directions are binding. Therefore, the finding given by the State Commission that the directions of the State Government under Section 108 of the Act are binding on the State Commission is wrong.*

.....

(7) *Thus, the entire impugned order determining the tariff for the Appellant category was purely based upon the policy directions purported to have been issued under Section 108 of the Act and not on independent consideration. Therefore, the conclusion arrived at by the State Commission in the matter of determination of tariff has no legal basis.*

63. *In view of our above findings, we deem it fit to set aside the entire tariff order and to remand the matter to the State Commission with a direction to re-determine the tariff on the basis of the existing Regulations and regulatory principles and the judicial pronouncement including those laid down by this Tribunal from time to time, without being influenced by any directions issued by the State Government. The State Commission may also consider the submissions of the Appellants regarding*

cost of supply, cross subsidy and increase in tariff with respect to the previous year. Accordingly ordered."

Therefore it is clear from the view taken by the Appellate Authority and the Hon'ble Supreme Court in a catena of judgments that the main object and reason of the reform legislation was to distance the role of the Government in fixation of tariff and to allow tariff determination by an independent regulatory authority which will follow a transparent process. This is at the very core of the reform legislation.

On analyzing the various judgments and having considered the Courts view it is quite clear that the Electricity Act aim at providing complete independence to the Regulatory Commissions in its function of tariff determination. It would be appropriate for me to refer to the Sections of the Electricity Act, 2003 again and explain the provisions used in the judgments as they can be interpreted. Section 3³³ of the Act provides for notification of the National Electricity Policy and Tariff Policy. These policies are to be notified by the Central Government in consultation with the State Governments and the Central Electricity Authority. Further the tariff policy also talks about guiding and is not binding the Commissions. Moreover it is notified after consultation from all stakeholders³⁴. This provision of the Sections and also the whole

³³ Section 3. (National Electricity Policy and Plan) --- (1) The Central Government shall, from time to time, prepare the National Electricity Policy and tariff policy, in consultation with the State Governments and the Authority for development of the power system based on optimal utilisation of resources such as coal, natural gas, nuclear substances or materials, hydro and renewable sources of energy. (2) The Central Government shall publish National Electricity Policy and tariff policy from time to time. (3) The Central Government may, from time to time, in consultation with the State Governments and the Authority, review or revise, the National Electricity Policy and tariff policy referred to in sub-section (1). (4) The Authority shall prepare a National Electricity Plan in accordance with the National Electricity Policy and notify such plan once in five years: Provided that the Authority while preparing the National Electricity Plan shall publish the draft National Electricity Plan and invite suggestions and objections thereon from licensees, generating companies and the public within such time as may be prescribed: Provided further that the Authority shall - (a) notify the plan after obtaining the approval of the Central Government; (b) revise the plan incorporating therein the directions, if any, given by the Central Government while granting approval under clause (a). (5) The Authority may review or revise the National Electricity Plan in accordance with the National Electricity Policy.

³⁴ 2.2 The Act also requires that the Central Electricity Regulatory Commission (CERC) and State Electricity Regulatory Commissions (SERCs) shall be guided by the tariff policy in discharging their functions including

statute when read makes it amply clear that the State Government does not have the jurisdiction to issue any policy direction in the matters of tariff. The State Government has a right to be consulted or give their views during preparation of the tariff policy, by the Central Government. The next Section is Section 61³⁵ of the Electricity Act, 2003. As per this Section, the Appropriate Commission has been vested with the jurisdiction to frame Tariff Regulations specifying the terms and conditions for determination of tariff. While framing such Regulations, the Appropriate Commission is to be guided by various factors as specified in Section 61 of the Electricity Act, 2003 including National Electricity Policy and Tariff Policy. Therefore, the guidance available to the State Commission on tariff matters is from the Electricity Policy and the National Tariff Policy and not from the directions of the State Government. As such, the State Government cannot issue a policy direction on tariff matters. If such a policy direction has been issued, it is not binding upon the State Commission especially when it is inconsistent with the National Electricity Policy/ Tariff Policy.

Section 61 provides that the State Commission shall be guided by the principles and methodology specified by the Central Commission for determination of tariff applicable to Generating Companies and Transmission Licensees. Section 65³⁶ of the Electricity Act, 2003 also provides that no direction of the State Government

framing the regulations under Section 61 of the Act. 2.3 Section 61 of the Act provides that Regulatory Commission shall be guided by the principles and methodologies specified by the Central Commission for determination of tariff applicable to generating companies and transmission licensees. "3.0 EVOLUTION OF THE POLICY: The Tariff Policy has been evolved in consultation with the State Governments and the Central Electricity Authority (CEA) and keeping in view the advice of the Central Electricity Regulatory Commission and suggestions of various stakeholders."

³⁵ Footnote 24 Supra

³⁶ Section 65: (Provision of subsidy by State Government): If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall, notwithstanding any direction which may be given under section 108, pay, in advance and in such manner as may be specified, the amount to compensate the person affected by the grant of subsidy in the manner the State Commission may direct, as a condition for the licence or any other person concerned to implement the subsidy provided for by the State Government: Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in this section and the tariff fixed by State Commission shall be applicable from the date of issue of orders by the Commission in this regard.

regarding grant of subsidy to any consumer or class of consumers in tariff determination by the State Commission shall be operative if the amount on account of subsidy, as decided by the State Commission is not paid to the utility in advance and the tariff fixed by the State Commission shall be applicable from the date of the issue of the orders of the State Commission in this regard.

It is clear from the above Sections that there is a statutory policy that occupies a field, i.e. Electricity Tariff. There is no scope for the State Government to issue policy directions on tariff matters. The Parliament has allocated such powers to the Central Government which is to issue the policy. While preparing these statutory policies under Section 3 of the Act, the legislature has provided for consultation with the State Governments. Thus the State Government's power to issue independent policy directions on tariff matters clearly stands exhausted. All that the State Government can do is to give its views/suggestions/objections on the tariff matters during the consultation process with the Central Government and also when the State Regulatory Commissions determine tariff.

In the aforesaid legislative scheme, the scope and object of the Electricity Act 2003 and the purported directions issued by the State Government there under or the Central Government is quite restricted and not at all binding. Section 108³⁷ of the Act is a general Section without any non-obstante clause and so it cannot be permitted to override a special provision relating to the tariff as contained in Section 62 of the Act, 2003. In the legislative scheme relating to tariff, the role of State Government is only envisaged on the issue of subsidy as provided under Section 65 of the Act. The law clearly provides that if the State Government wishes to give to any category of consumers a tariff lower from that which is determined by the State Commission, the State Government can do so subject to the payment of subsidy in advance. In other words, the law provides that the State Government's obligation to pay subsidy cannot be decided by a policy direction under Section 108 of the Act, 2003 and of course as

³⁷ Section 108 (Directions by State Government): (1) In the discharge of its functions, the State Commission shall be guided by such directions in matters of policy involving public interest as the State Government may give to it in writing. (2) If any question arises as to whether any such direction relates to a matter of policy involving public interest, the decision of the State Government thereon shall be final.

stated earlier the State Government, as a major stake-holder, may have a right to make suggestions/objections/comments in tariff matters and the State Commission may consider those suggestions of the State Government as a stake-holder and take an independent view in the matter without simply obeying the directions issued by the State Government under Section 108 of the Electricity Act.

ii. **Gas Policy**

Now we shall go through the gas policy notified by the Ministry of Power, Government of India, on 27.03.2015 to provide for a scheme for utilization of Gas based power generating capacity lying idle in the country. The country as of now has 27123 MW of gas generating capacity out of which only plants with capacity of 9845 is operational and that too achieving only 32.2% PLF which is much lower than that required to recover annual fixed cost by the generator due to low gas availability. There is no availability of gas for 14305 MW capacity gas generating stations. These gas plants are called stranded gas stations.

The Government has come up with a policy for stranded gas based power plants and also gas based power plants receiving domestic gas. The Government has proposed to spend Rs. 3500 Crore in the Financial Year 2015-16 and Rs. 4000 Crore in the Financial Year 2016-17. In the F.Y 2015-16, the gas power plants receiving domestic gas will be given a subsidy of Rs. 500 Crore while stranded power plants will be given a subsidy of 3000 Crore. In the F.Y. 2016-17 the gas plants receiving domestic gas will be given a subsidy of 500 Crore again and the stranded will be give Rs. 4000 Crore.

Moreover empowerment pool management Committee has been constituted to execute the policy. The Committee shall work under the chairmanship of Special Secretary/Additional Secretary, Ministry of Power, Joint Secretary, Department of Revenue, Joint Secretary, Ministry of Petroleum and Natural Gas (in-charge of gas allocation), Joint Secretary and F.A. Member (thermal), Director (Marketing), Central Electricity Authority and Director (Marketing) Gail and GSPCL. The Committee has to ensure the implementation of the policy and that all gas power plants start operating within the next two years.

The major requirements of the policy are to provide the generating plants a waiver on a lot of taxes and duties they would have to pay in the normal course of business. The requirements in the policy are also termed as sacrifices for the stakeholders. So I shall list the sacrifices, the so called requirements:

- Waiver on the Customs duty of imported LNG by Government of India
- Exemption from value added taxes to be paid on e-bid RLNG consumed in power generation.
- Waiver of Central Sales Tax, Octroi and Entry Tax on e-bidding. Also entry tax levied by States shall be exempted.
- Waiver of sales tax on regasification and transportation of e-bid RLNG.
- Reduction in pipeline tariff charges by 50% by GAIL/ transporters which are RGTIL and GSPCL.
- Reduction in marketing margin by 75% on sale by GAIL/GSPCL on the e-bid RLNG.
- The gas power plant owners/developers have to forego their return on equity.
- They will be given exemption from transmission charges and transmission losses at CTU and STU for stranded gas based power projects on lines of solar power generation from the e-bid RLNG.
- Support from Power Systems Development Fund support to Distribution Companies.
- Further provisions for relief and support from banks and financial institutions.

The policy clearly States that the indicative target price which is the net purchase price for Distribution companies will be Rs. 5.50/Unit for stranded gas power plants and Rs.4.19/unit for plants receiving domestic gas.

Further the empowered pool management committee may review the PLF and indicative target price depending upon the response during the reverse e-bidding, while ensuring support from Power system development fund.

The condition further to be adhered by the stranded gas power plants operators is that the lead banker will ensure that all receipts of money will be utilized for payments towards variable cost of generation and operation and maintenance expenses as per CERC/ concerned State Regulatory Commission's guideline in force and debt servicing after capping the fixed cost and ensuring that no payments are made towards any Return on Equity to the Sponsors of the project. The gas plant operators which are purchasing domestic gas also need to adhere to conditions where the lead banker/EPMC will ensure that the receipt of money would be utilized only for payments towards the variable cost of generation.

Now that the gas policy has been talked about we see how the role of the Regulator comes in and whether the policy infringes the Regulators role. Also while analyzing the same we will keep the Judgments referred to which specifically stress es on Regulators independence in tariff matters as we have already discussed.

The gas policy introduced by the Government to improve the condition of gas power plants is not very well thought of. The whole policy is inconsistent with the provisions of the Electricity Act, 2003. The tariff Regulations enacted under the Electricity Act, 2003 are based on cost plus basis. Moreover determination of transmission tariff and specifying provisions for Return on Equity are the functions of the Regulatory Commissions. Section 65³⁸ of the Act which relates to subsidies is State specific. Section 65 of the Act clearly lays down the underlying principle and intent. There is no specific provision for Central Government Subsidy. Also the Government in the present case is not paying for the waiver of transmission charges or transmission losses. The policy only talks about forgoing the transmission charges and losses. This will impact the State Owned Transmission Companies and the Distribution Companies which shall be borne by the two utilities. The Government has not thought about the after effects and how in the cost plus tariff regime recovery will

³⁸ Footnote 36 Supra

be made. Return on equity allowed to a company are either passed through or absorbed in cost plus regime. However, the cost plus regime on which the tariff is determined for the power sector utilities is done away with. Moreover, return on equity will not be recovered by the Company. All of this poses serious threat to attracting investors or clearly would demoralize investors.

That is why I started with saying that the policy is not well thought of. We can say that the effect of the policy to revive or make operational these power plants is huge on the power sector. Moreover, because I am only analyzing the power sector in the present dissertation, I can well imagine how it impacts the whole energy sector.

Also we have talked about the policy being in contradiction with the provisions of the Act; we can also see that the Central Electricity Regulatory Commission³⁹ and the State Electricity Regulatory Commission⁴⁰ have already amended their Tariff Regulations for providing a tariff for the gas based power plants. This is clearly pseudo independence. I shall say that the Regulators are only independent in word but not in action because even after so many judicial pronouncements clearly stating that the Regulators are not bound by policy directions but only by the statute and any policy which is outside the purview of the Statute or contradictory is ultra-vires.

iii. Lacunae in the Statute

Other areas where the word independent with a Regulator is an irony is when it comes to the procedure of appointment of a Regulator, its functioning as an independent Regulator and how it is governed. The Electricity Act has time and again given provisions for Regulators independence but how tragic is it when we refer to Section 76⁴¹, Section 77⁴² and Section 78⁴³ for appointment of Central Electricity

³⁹ 1st amendment Dated: 5th of November, 2015 vide Notification, No. L-1/144/2013/CERC.

⁴⁰ Draft Addendum Notification No.RG/UERC/2015 in Draft UERC (Terms and Conditions for Determination of Tariff) Regulations, 2015.

⁴¹ Section 76. (Constitution of Central Commission): (1) There shall be a Commission to be known as the Central Electricity Regulatory Commission to exercise the powers conferred on, and discharge the functions assigned to it under this Act. (2) The Central Electricity Regulatory Commission, established under section 3 of the Electricity Regulatory Commissions Act, 1998 and functioning as such immediately before the appointed date, shall be deemed

to be the Central Commission for the purposes of this Act and the Chairperson, Members, Secretary, and other officers and employees thereof shall be deemed to have been appointed under this Act and they shall continue to hold office on the same terms and conditions on which they were appointed under the Electricity Regulatory Commissions Act, 1998: Provided that the Chairperson and other Members of the Central Commission appointed, before the commencement of this Act, under the Electricity Regulatory Commissions Act, 1998, may, on the recommendations of the Selection Committee constituted under sub-section (1) of section 78, be allowed, to opt for the terms and conditions under this Act by the Central Government. (3) The Central Commission shall be a body corporate by the name aforesaid, having perpetual succession and a common seal with power to acquire, hold and dispose of property, both movable and immovable, and to contract and shall, by the said name, sue or be sued.

(4) The head office of the Central Commission shall be at such place as the Central Government may, by notification, specify. (5) The Central Commission shall consist of the following Members, namely:- (a) a Chairperson and three other Members; (b) the Chairperson of the Authority who shall be the Member, ex-officio. (6) The Chairperson and Members of the Central Commission shall be appointed by the Central Government on the recommendation of the Selection Committee referred to in section 78.

⁴² Section 77. (Qualifications for appointment of Members of Central Commission): (1) The Chairperson and the Members of the Central Commission shall be persons having adequate knowledge of, or experience in, or shown capacity in, dealing with, problems relating to engineering, law, economics, commerce, finance or, management and shall be appointed in the following manner, namely:- (a) one person having qualifications and experience in the field of engineering with specialization in generation, transmission or distribution of electricity; (b) one person having qualifications and experience in the field of finance; (c) two persons having qualifications and experience in the field of economics, commerce, law or management: Provided that not more than one Member shall be appointed under the same category under clause (c). 77(2) Notwithstanding anything contained in sub-section (1), the Central Government may appoint any person as the Chairperson from amongst persons who is, or has been, a Judge of the Supreme Court or the Chief Justice of a High Court: Provided that no appointment under this sub-section shall be made except after consultation with the Chief Justice of India. 77(3) The Chairperson or any other Member of the Central Commission shall not hold any other office. 77(4) The Chairperson shall be the Chief Executive of the Central Commission.

⁴³ Section 78. (Constitution of Selection Committee to recommend Members): (1) The Central Government shall, for the purposes of selecting the Members of the Appellate Tribunal and the Chairperson and Members of the Central Commission, constitute a Selection Committee consisting of -(a) Member of the Planning Commission in charge of the energy sector: Chairperson; (b) Secretary-in-charge of the Ministry of the Central Government dealing with the Department of the Legal Affairs: Member; (c) Chairperson of the Public Enterprises Selection Board: Member; (d) a person to be nominated by the Central Government in accordance with sub-section (2) Member; (e) a person to be nominated by the Central Government in accordance with sub-section (3): Member; (f) Secretary-in-charge of the Ministry of the Central Government dealing with power :Member.(2) For the purposes of clause (d) of sub-section (1), the Central Government shall nominate from amongst persons holding the post of chairperson or managing director, by whatever name called, of any public financial institution specified in section 4A of the Companies Act,

Regulators and Section 82⁴⁴, Section 83, Section 84⁴⁵, Section 85⁴⁶ for appointment of the State Electricity Regulators. The Central Government and the State Government

1956. (3) For the purposes of clause (e) of sub-section (1), the Central Government shall, by notification, nominate from amongst persons holding the post of director or the head of the institution, by whatever name called, of any research, technical or management institution for this purpose. (4) Secretary-in-charge of the Ministry of the Central Government dealing with Power shall be the Convenor of the Selection Committee. (5) The Central Government shall, within one month from the date of occurrence of any vacancy by reason of death, resignation or removal of a Member of the Appellate Tribunal or the Chairperson or a Member of the Central Commission and six months before the superannuation or end of tenure of the Member of the Appellate Tribunal or Member of the Central Commission, make a reference to the Selection Committee for filling up of the vacancy. (6) The Selection Committee shall finalize the selection of the Chairperson and Members referred to in sub-section (5) within three months from the date on which the reference is made to it. (7) The Selection Committee shall recommend a panel of two names for every vacancy referred to it.

44 Section 82. (Constitution of State Commission): (1) Every State Government shall, within six months from the appointed date, by notification, constitute for the purposes of this Act, a Commission for the State to be known as the (name of the State) Electricity Regulatory Commission: Provided that the State Electricity Regulatory Commission, established by a State Government under section 17 of the Electricity Regulatory Commissions Act, 1998 and the enactments specified in the Schedule, and functioning as such immediately before the appointed date, shall be the State Commission for the purposes of this Act and the Chairperson, Members, Secretary, and other officers and other employees thereof shall continue to hold office, on the same terms and conditions on which they were appointed under those Acts: Provided further that the Chairperson and other Members of the State Commission appointed, before the commencement of this Act under the Electricity Regulatory Commissions Act, 1998 or under the enactments specified in the Schedule, may on the recommendations of the Selection Committee constituted under sub-section (1) of Section 85 be allowed to opt for the terms and conditions under this Act by the concerned State Government. (2) The State Commission shall be a body corporate by the name aforesaid, having perpetual succession and a common seal, with power to acquire, hold and dispose of property, both movable and immovable, and to contract and shall, by the said name, sue or be sued. (3) The head office of the State Commission shall be at such place as the State Government may, by notification, specify. (4) The State Commission shall consist of not more than three Members, including the Chairperson. (5) The Chairperson and Members of the State Commission shall be appointed by the State Government on the recommendation of a Selection Committee referred to in section 85.

45 Section 84: (Qualifications for appointment of Chairperson and Members of State Commission): --- (1) The Chairperson and the Members of the State Commission shall be persons of ability, integrity and standing who have adequate knowledge of, and have shown capacity in, dealing with problems relating to engineering, finance, Commerce, economics, law or management. (2) Notwithstanding anything contained in sub-section (1), the State Government may appoint any person as the Chairperson from amongst persons who is, or has been, a Judge of a

have complete authority over appointment of Regulators. Moreover, the selection Committee that is appointed for selection of a Regulator is also appointed by the Government itself. It is a completely arbitrary appointment when it comes to Regulators exercising their independence. Further the authority of extension of the Regulators tenure and its removal are at the Central or State Government's pleasure.

Also I would like to mention that the terms and conditions for service of the Regulator, the number of employees in a Regulatory Commission, the service conditions of the employees are all at the discretion of the respective Governments. In addition to this, to ensure that the regulators are mere puppets in the hands of the Government there are other powers in the Electricity Act itself which gives the Central Government and the State Government power to frame rules. These powers have been vested with the respective Governments under Section 176⁴⁷ and Section 180⁴⁸ of the Electricity Act itself.

High Court: Provided that no appointment under this sub-section shall be made except after consultation with the Chief Justice of that High Court. (3) The Chairperson or any other Member of the State Commission shall not hold any other office. (4) The Chairperson shall be the Chief Executive of the State Commission.

⁴⁶ Section 85. (Constitution of Selection Committee to select Members of State Commission): --- (1) The State Government shall, for the purposes of selecting the Members of the State Commission, constitute a Selection Committee consisting of (a) a person who has been a Judge of the High Court: Chairperson; (b) the Chief Secretary of the concerned State: Member; (c) the Chairperson of the Authority or the Chairperson of the Central Commission: Member: Provided that nothing contained in this section shall apply to the appointment of a person as the Chairperson who is or has been a Judge of the High Court. (2) The State Government shall, within one month from the date of occurrence of any vacancy by reason of death, resignation or removal of the Chairperson or a Member and six months before the superannuation or end of tenure of the Chairperson or Member, make a reference to the Selection Committee for filling up of the vacancy. (3) The Selection Committee shall finalise the selection of the Chairperson and Members within three months from the date on which the reference is made to it. (4) The Selection Committee shall recommend a panel of two names for every vacancy referred to it. (5) Before recommending any person for appointment as the Chairperson or other Member of the State Commission, the Selection Committee shall satisfy itself that such person does not have any financial or other interest which is likely to affect prejudicially his functions as such Chairperson or Member, as the case may be. (6) No appointment of Chairperson or other Member shall be invalid merely by reason of any vacancy in the Selection Committee.

⁴⁷ Section 176. (Power of Central Government to make rules): --- (1) The Central Government may, by notification, make rules for carrying out the provisions of this Act. (2) In particular and without prejudice to the generality of the

foregoing power, such rules may provide for all or any of the following matters, namely: -(a) the time within which the objection and suggestions on the draft National Electricity Plan to be invited by the Authority under the proviso to sub-section (4) of section 3; (b) the additional requirements 1[relating to the capital adequacy, creditworthiness or code of conduct] under sixth proviso to section 14; (c) the payment of fees for application for grant of licence under subsection (1) of section 15; (d) the constitution and functions of the National Load Despatch Centre under subsection (2) of section 26; (e) the works of licensees affecting the property of owner or occupier under subsection (2) of section 67; (f) such other cases which may be prescribed under clause (c) of subsection (2) of Section 68; (g) allowances and fees payable to others Members for attending the meetings of Authority under sub-section (14) of section 70. (h) other terms and conditions of service of the Chairperson and Members of the Authority under subsection (15) of section 70; (i) the functions and duties of the Central Electricity Authority under section 73; (j) the salary, allowances and other conditions of service of Chairperson and Member of Central Commission under subsection (2) of section 89; (k) the form and manner in which and the authority before whom oath of office and secrecy should be subscribed under sub-section (3) of section 89;(l) the procedure to be prescribed by the Central Commission under the proviso to sub- section (2) of section 90; m) any other matter required to be prescribed under clause (g) of subsection (1) of section 94; (n) the form in which the Central Commission shall prepare its annual statement of accounts under sub-section (1) of section 100; (o) the form in which and time at which the Central Commission shall prepare its annual report under sub-section (1) 101; (p) the form in which and time at which the Central Commission shall prepare its budget under section 106; (q) the form and the manner of verifying such form, and fee for filing appeal under sub-section (2) of section 111; (r) the salary and allowances payable to and the other terms and conditions of service of the Chairperson of the Appellate Tribunal and Members of the Appellate Tribunal under section 115; (s) the salary and allowances and other conditions of service of the officers and employees of the Appellate Tribunal under subsection (3) of section 119; (t) the additional matters in respect of which the Appellate Tribunal may exercise the powers of a civil court under clause (i) of subsection (2) of section 120; (u) the authority to whom the appeal shall be filed under sub-section (1) of section 127; (v) manner of holding inquiry by an adjudicating officer under subsection (1) of section 143; (w) the form in which and the time at which service of notices to any person or to the Central Government for the purpose under subsection (1) of section 161; (x) the powers to be exercised and the functions to be performed by the Inspectors under sub-section (1) of section 162; (y) the manner of delivery of every notice, order or document to be served under sub-section (1) of section 171; (z) any other matter which is required to be, or may be, prescribed.

⁴⁸ Section 180 (Powers of State Governments to make rules): --- (1) The State Government may, by notification, make rules for carrying out the provisions of this Act.(2) In particular and without prejudice to the generality of foregoing power, such rules may provide for all or any of the following matters, namely: -(a) the payment of fees for application for grant of license under subsection (1) of section 15; (b) the works of licensees affecting the property of other persons under sub- section(2) of section 67; (c) such other matters which may be prescribed under clause (c) of sub-section (2) of section 68; (d) the salary, allowances and other terms and conditions of service of the Chairperson and Members of the State Commission under subsection (2) of section 89;(e) the form and manner in which and the authority before whom oath of office and secrecy should be subscribed under sub-section (3) of

After having read the statutes, the policies, the judgments given by various Hon'ble Courts in the country and then working in a Regulatory framework, it is sad to see that no matter how the Regulator wants to exercise its independence for the betterment of the sector, there is Government intervention from one place or the other leaving the whole exercise futile. By the time the Courts in the disputes state that the Regulator has independence to work and the Government cannot bind the Regulator the implications of Government interference have already occurred. This was also seen the case in Delhi where the Delhi Government interfered with the Regulatory framework in their exercise of tariff determination. Till the time the Hon'ble Appellate Tribunal for Electricity held that the Regulators are not bound by the Government directives in tariff matters two years were lost which gave rise to huge financial implications and complications for further tariff determination. Thus it is a necessity that if Regulators are made with the objective to act independently for the betterment of the sector they should also be given such independence. The Government should then refrain from binding the Regulators to act on their directives. Clearly speaking the Government influence should completely be removed from the regulatory setup. The Regulatory set up should be given complete space to work and implement changes beneficial for the sector, the companies investing, the stakeholders, the financial institutions and the consumers at the end of supply chain.

section 89; (f) any other matter required to be prescribed by the State Commission under clause (g) of sub-section (1) of section 94; (g) the manner of applying the Fund under sub-section (3) of section 103; (h) the form in which and time at which the State Commission shall prepare its annual accounts under sub-section (1) of section 104; (i) the form in which and time at which the State Commission shall prepare its annual report under sub-section (1) of section 105; (j) the form in which and time at which the State Commission shall prepare its budget under section 106; (k) manner of service of provisional order of assessment under subsection (2) of section 126; (l) manner of holding inquiry by an adjudicating officer under subsection (1) of section 143; (m) the form in which and the time at which notice to the Electrical Inspector under sub-section (1) of section 161; (n) the manner of delivery of every notice, order or document under sub-section (1) of section 171; and (o) any other matter which is required to be, or may be, prescribed.

8. WHO IS A REGULATOR

i. Can a Regulator alone improve the system

The energy sector/power sector and its regulation is undergoing a profound change. Regulators are as has been in the past tasked with a balancing multitude of objectives in order to ensure optimum utilization of resources, least cost service delivery, reasonable returns on investments, ensuring high quality and reliability, ensuring suitable conditions to perform operations, attracting investments, settlement of disputes, making systems and mechanisms for the whole sector. The key challenge faced by the Regulators today is reconciliation of the new regulatory objectives with the already working system which is now ingrained in the structure. The regulators have a great opportunity to improve the system and make the companies financially stable and remove interdependencies where it is causing implications. However, it is also a very big challenge till there is government influence and interference in the system. The clear objectives that needs to be fulfilled by an energy regulator are

- Manage design and tariff
- Maintain system reliability, meet demand growth and expand oil and gas and electricity access
- Ensure financially healthy utilities
- Facilitate private investments
- Protect interests of the poor
- Support technical safety and reliability of power system
- Reduce health and environmental impacts of new systems
- Meet rapidly growing demand while minimizing environmental impacts and risks
- Support procurement of energy resources.
- Support procurement of renewable energy.
- Facilitate public/consumer participation in the market

- Enhance cyber security and protect privacy
- Manage increased interactions with other sectors.

Now that we realize that development and growth are a matter of choice and because we have opted to go for development and growth in the country and are adopting to the evolving standards of living, sectors which are the backbone for it needs to be regulated. Now to regulate means to keep the stakeholders of the sector stable, create and maintain a balance between different components of the sector and avoiding causes of disputes and settling dispute resolution amicably. Another important part a Regulator needs to do is to check that all stakeholders are strictly following the law and the periphery of law encompasses all including the Government. It becomes the Regulators responsibility to check that with the need of the hour the law evolves with changing times but shifting of lines within the periphery fixed to adjust any illegal or arbitrary activity must be barred. As we all have heard the phrase “Power Corrupts and absolute power corrupts absolutely” the Regulators need to make sure that the principle of Rule of Law is strictly abided with.

ii. **Statutory Regulators or Courts**

Last but not the least, after having discussed what a regulator is, objectives of setting up a regulatory framework, essentials for ensuring regulatory independence and no government interference, the statutes and the regulators appointed under the statutes the main question still remains unanswered. Whether the DGH, PNGRB, the CERC and the SERCs are the regulators or the Appellate Tribunal for Electricity which takes up appeals of all three Regulators or the High Courts of the States or the Supreme Court?

My view on this would be that the Appellate Tribunal of Electricity is practically the Regulator of the power Sector, the Governments for the upstream and the downstream and the courts have their own lacunas. The High Courts cannot be said to be Regulators. They only exercise constitutional powers. They have the power of a judicial review and cannot enter into resolution of disputes or any other matters that are dealt with by the CERC and the SERCs and other Regulators. They have the power to check whether the Regulations specified under the statutory provisions are

constitutional and not ultra vires to the Act. However, ATE almost takes up all kinds of disputes in the energy sector and also gives directions to the State Regulators on specific issues for the betterment of the sector and also gives orders for compliance. An example in this would be the ATE giving directions to all the State Commissions for Renewable Purchase Obligation Compliance⁴⁹. And finally the Apex Court of the Country which is the Supreme Court of India. It takes up matters that go in appeal before it or appeals also from High Courts where Regulations are challenged but by the time the Apex Court decides in the matter it is decades old already and the impact and implications of this are by very nature of such delay suffered by the stakeholders and mostly the end consumers. The sad state of affairs is that practically till date there is no particular person or authority who can be said to be Regulator in the true sense. And to get in this true sense whatever changes are made or however the system evolves, unless there is complete autonomy and independence, there is no use of making a blind fold after blind fold because the end results always remain the same and it is the public who suffers. Moreover even if there is transparency it is always the lack of interest of general public when the law is being implemented that kills the system. It is only after a problem or dispute arises they start questioning the law or the legislature which again always leaves a room for its escape shifting the blame.

So we can say a regulator needs to be a neutral person well versed with the sector having an experience and expertise on what he is doing to maintain that balance and as I said earlier to create sustainable, smart, livable and walkable action plans rather than concentrating on one specific area at one time and not foreseeing its effects on the other departments and also ensure that if there are Statutes made with certain objectives they should be implemented in letter and spirit.

⁴⁹ Appeal no. 24 of 2013 & IA no. 39 of 2013, dated: 25th April, 2014; Appeal No. 92 of 2013 & IA no. 151 of 2013 & Appeal No. 109 of 2013, dated: 21st January, 2014.

9. COMPARATIVE STUDY

The United States is a leader in the production and supply of energy, and is one of the world's largest energy consumers. The energy industry is the third largest industry in the United States. U.S. energy companies produce oil, natural gas, coal, nuclear power, renewable energy and fuels, as well as electricity, smart grid, and demand response technologies. Growing consumer demand and world class innovation combined with a competitive workforce and supply chain capable of building, installing, and servicing all energy technologies make the United States the world's most attractive market in the global energy market.

ILLUSTRATION III

Looking back over the past decade, it is striking how many of the developments in the energy sector were not predicted, including the U.S. shale gas boom, the massive price drop for solar photovoltaic (PV) modules, and the lack of a big build-out of coal-fired power plants in the United States. With due respect, therefore, for the limits of prediction, the U.S. electricity sector nevertheless seems likely to encounter a few powerful trends over the next 5-10 years. The policy and regulatory frameworks within which utilities operate are likely to start shifting to new approaches designed to further minimize electricity costs, maximize reliability, and minimize environmental damage. Low solar PV prices and new financing models that reduce up-front costs have already led to a solar rooftop boom in the United States, a trend that is likely to continue even after massive poly silicon overcapacity and U.S.-China and EU-China trade disputes are considered. Energy storage technologies, which are often cited as potential game-changers, can help with renewable integration while also providing a sweeping range of other services.

In many of the developing countries of the world the present institutional structure has failed to produce responsible actions in response to sector development while keeping global issues like environmental concerns ,competition, promotion , level playing field in view to their already over burdened Social agenda. Enforcement actions must be seen as one element in a dialogue between Regulations and Enterprises, the objective of which is to improve the environmental performance of the

plants under scrutiny. Such a dialogue is particularly difficult both parties are government agencies. The situation in Eastern Europe is an extreme example of the problems that exist in many developing countries. The direction of regulatory and institutional change proposed in the dissertation for India is based on such problems and should go a long way towards developing institutions that would deal with environmental issues and other market issues, in a more responsible manner.

It is not an accident or it was not just by chance that even in the U.S.A. rural electrification was completed in 1930s only after President Franklin D Roosevelt, under his New Deal, created the Tennessee Valley Authority and Rural Electricity Administration explicitly for this purpose. For millions of people, the greatest achievement of New Deal was the electricity coops that brought electricity to vast areas that private utilities has refused to service. These are related to the unbundling of the vertically integrated monopolies that have been the norm in the electricity sector all over the world until the mid-1980s. The reforms – in Chile under August Pinochet and in United Kingdom under Margaret Thatcher – were to separate generation, transmission and distribution and spin them off as independent companies. Important as the above issues are with regard to the social and political implications of power sector reforms, they can be decoupled from another set of issues but implications of power sector reforms on other sectors or other sector reforms on power sector were dealt with practically and with utmost importance. The premise was that it would lead to competition amongst generators and bring down the price of electricity. It was with this end in view that California Introduced large –scale changes in 1996 and dismembered its vertically integrated power utilities. Major reforms are under way in the world with the UK and now the California reforms as the model.

In discussions on the future of electricity and taking examples (as well as cyber security, climate change, and many other topics), China now looms large. China is increasingly a source of capital and a test bed for technological development, while also enabling mass production that has brought the costs of energy technologies (particularly solar PV) way down. China has become the world's top producer of solar PV and wind turbines, though massive overcapacity is now bankrupting manufacturers. China also consumes almost as much coal as the rest of the world

combined and is initiating a number of CCUS projects – in which U.S. utilities are engaging to get experience they cannot get at home. U.S. companies are going to China to construct large commercial nuclear energy projects, too, and China has become the lead developer of Generation IV nuclear energy projects. Internally, China's power sector may be poised for reform, as Chinese leadership appears committed to restructuring the economy away from energy-intensive heavy industry and toward light manufacturing and services. All in all, China has become a world leader in the energy sector, with implications for U.S. competitiveness, innovation, and technological development and deployment. However, our country is still making policies for increasing generation, making roadmaps for infrastructure development and growth while the other countries are have over produced and after being self sufficient are exporting to other countries at a very low rates boosting competition.

The sector is likely to see continued disintermediation, anemic or negative demand growth, and broader challenges to the traditional utility business model from distributed generation. Smart electricity networks and “big data” analytics are likely to create vastly enhanced capabilities and significant value for both utilities and end users, while integrating the physical and digital networks like in the United States which produce tremendous savings and benefits but is still a distant dream.

Here in India, the argument of disengaging the State from the electricity sector had been taken so that it would reduce the State's burden, as it will not have to foot the bill for the losses of the State Electricity Boards (SEBs). What was left unsaid is that the subsidies that the State will need to provide may be much larger than the current losses. The Act left the question of ownership, particularly of the transmission company, deliberately vague. If the State Government owns the transmission company, as it was in Orissa after reforms were introduced there, then the losses of the transmission company will have to be added together, a back of the envelope computation will show that the outflow of the State Governments is actually likely to increase after the reforms are implemented. This is a sleight of hand exercise to call what are subsidies now as losses and call them subsidies later claiming a reduction in losses.

The other premise of the Act was that electricity can be supplied to rural areas through NGOs, panchayats, cooperatives and other institutions. Though there is no doubt that such innovative distribution schemes are urgently required for the rural areas, this leaves aside the question of who is to take electricity up to the distribution point near a village from where the local community structures can take over. How will it be regulated is another question that hardly occurred when framing such policies. The major cost is in providing the high-tension line and the substation and similar infrastructure. Purely from a commercial standpoint, this activity is unlikely to be profitable and was the *raison d'être* originally of setting up to SEBs. Once the existing structure is dismantled as is being proposed in the amendment bill 2014 also, there has to be an alternative mechanism in place for satisfying the needs of rural electrification. Also, as discussed above complete autonomy and independence shall be given to the Regulators with no Government interference or influence.

The Electricity Act 2003 (provision to Section 14) States that “where a person intends to generate and distribute electricity in rural area to be notified by the State Government, such person shall not require any license for such generation and distribution of electricity, but shall comply with the measures which may be specified by the CEA under Section 53”. Again the regulatory set up is done away with. Perhaps this is based on the presumption that dispersed generation from non-conventional and mini hydel sets would be cheaper. With such cost structure of even non-conventional and dispersed generation, it is evident that agricultural tariff will have to be subsidized for several years to come. In this light, to permit setting up of generation and distribution projects in the rural areas without any scrutiny of their costs will foreclose the options of the State Government in so far as taking over of subsidy burden is concerned.

A reference may be made in this context to the concept of cost to serve as opposed to cost of supply. Ideally, tariff for every consumer group should be based on the cost to serve the concerned group. In working out the cost to serve, several factors such as the cost of generation, transmission and distribution, clustered vs. dispersed supply, voltage at which supply is made, tariff calculated on average cost of supply or voltage-wise cost of supply and whether supply is given only in off-peak hours or at

all hours, will have to be taken into account. Ideally, a set-off in tariff should also be provided for unreliable and low quality supply based on frequency and duration of power failures and interruptions, and low and fluctuating voltages as was introduced almost a decade back but has not yet been implemented. On this basis, cost to serve for agricultural consumers should be lower than estimated at present. Laying down uniform guidelines in this regard under the Act and its Rules would have been advisable for all States which could only be done under a strict and autonomous Regulatory Infrastructure so that after laying down they can also be implemented and executed efficiently and get effective results.

10. SUGGESTIONS

After having researched and studies the energy sector and the industry practices there are certain changes which are essential. We need to realize that our approach should be to create a sustainable, smart, livable and walkable action plans rather than concentrating on one specific area at one time and not foreseeing its effects on the other departments and also ensure that if there are Statutes made with certain objectives they should be implemented in letter and spirit. Also we should adopt an intelligent approach now. It has been a very long time the hit and trail method have been adopted and trial it is time we change our attitude and be sure of what action needs to be taken and its effects and implications in the long run. To start with we need to first get our basics clear and start strengthening the base instead of superficial changes which results in temporary aims but the end result remains the same because the system remains the same.

To Break Ministerial Boundaries created for decades by creation of agencies without reference to the closely held turf boundaries of Ministries and departments of Governments. This will help the whole system deal with another fault in our governance that decisions on one subject or plan are taken without coordinating with other aspects that might fall in the purview of other ministries or departments.

To avoid regulatory proliferation and ensure holistic decision-making we could have a central energy regulator instead of separate ones for electricity, upstream oil, downstream oil, gas and coal. This regulator would be responsible for tariffs and licensing of production, transmission, distribution, and supply of coal, gas and electricity to ensure that the interests of all can be coordinated. It needs to be realized that since electricity being the major user of the others, has its prices capped and any deviation in the oil and gas markets have a very high impact on the power companies.

Moreover, closely related areas like the ground water (for drinking and irrigation), environmental clearances for power utilities at the State level could be brought under the State Regulatory Commissions for smooth functioning of the State public utilities where decisions on one has an impact on the other. Since subsidized or free electricity is responsible for the massive over exploitation of ground water, this

could help to relate the one to the other. Since sanitation is closely related to drinking water quality, the two regulators will need to meet from time to time on related issues and resolve issues.

However, issues of national security and highly technical issues in oil exploration have to be considered, so oil and oil products could be regulated separately. Retail distribution of oil and oil products has very different issues for consideration.

The essence of the Statutes is to promote transparency, public participation and open decision-making wherever the public interest is involved. If Government could be so in its normal functioning, such new agencies may be redundant. But Governments in India have invariably been secretive, tend to engage in superficial and limited consultation and rarely give reasons for their decisions. They are unlikely to change soon. If we do not start looking at such holistic responsibility for regulatory agencies we would be creating a multitude of regulatory agencies in addition to Government departments, without any improvement in the quality and cost of the services they are presently regulating. A regulatory morass is the inevitable consequence of regulatory proliferation. It does not have to be so.

A mechanism will have to be legislated under which Regulators for related areas meet regularly on boundary issues. This must apply to Energy, Water, Rail, Road and Sea transportation, environmental Regulation and Telecommunications (since Power transmission wires are used to hang the telecom wires). Coal and gas are not with a single Energy Regulator also creating a chaos in an already confused system, they must also be added in this List.

Another area that needs coordination, transparency and strict independent Regulators is Taxation. There are many variations between States and central taxation is also an important component in energy tariffs. Here again some coordination perhaps as advise to Government from the regulator might be useful.

The Electricity Regulator also must play a more proactive role than ever in handling subsidies. He must have reliable data and take steps to get them. After seeing the Gas Policy and its implications it seems that the hands of the Regulators were tied

by the Government which must not be the scenario for real development in the Sector and not eyewash for the general public. Also the Regulator must estimate-

- The real amount of subsidy provided to agriculture.
- How much electricity supplied to agriculture contributes to GDP so that some idea can be had of the social benefit of such supplies.
- Introduce innovations in various systems like metering-11 KV metering, prepaid meters.
- Costs of supply to agriculture in off peak hours.
- Power and water use efficiency under different tariff regimes-flat rate, metered per unit.
- Lay down clear guidelines on selecting target beneficiaries and ensuring that only they receive the subsidies.

Clearly, the regulation of agriculture tariffs will require coordination with energy efficiency and many studies and experiments in similar interrelated sectors. A strong Regulatory setup can carry forward the process of reforms, through reduction in losses with targets set and monitored by the Regulator, recovery of cost of supply to the licensee through regular tariff fixation. Also a strong regulatory setup can enable the Regulators or Commissions to function independently and ensure transparency, autonomy, growth and development. The growth of the economy, calls for a matching rate of growth in infrastructure facilities which is only possible with autonomous Regulatory control.

11. CONCLUSION AND SCOPE FOR FUTURE WORK

It will be important to ensure that the Act sub serves its objectives and does not lead to more problems than it claims to solve. This will call for continuous reassessment of its underlying strategies in the light of implementation experience. The Act is weak and wanting in so far as regulatory mechanism is concerned. As brought out earlier, whatever may be the experience in other countries, in India, the success of power sector reforms hinges critically on the success of regulatory mechanism. Towards this end, the Act needs to be amended as brought out hereafter. The Act should provide for a clear and unambiguous bar against reappointment of any member or chairperson on the same or any other commission. This should also hold good for the chairperson and members of the national appellate tribunal. Section 113(b) (i) States that a person who “is, or has been, or is qualified to be, a judge of a high court” could be eligible for appointment on the appellate tribunal.

Looking to the fact that this is a national level tribunal and is to decide appeals over the decisions of SERCs/CERC, it will be best to delete the words “is qualified to be” from this sub-Section. The experience brings out that, to be effective, SERCs need to be given much larger financial autonomy and independence by levy of a cess on power consumption in the State. No less important is the accountability of the regulator to State legislature/parliament. Moreover, the service conditions for the Regulators and the employees of the Regulators need not be governed by the Governments to give them autonomy in their governance mechanism. It will be useful if the standing committee of parliament and the relevant committee of the State legislature review the working of the regulators. Independent regulators are a phenomenon of recent origin in India. Towards this end, I am sure there is lot of scope for future until the Regulators of the energy Sector are given complete independence, and the regulators include the DGH, the PNGRB and the ERCs.

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13. **Annexure**

Annexure I

➤ **Provisions of Section 73, The Electricity Act 2003**

1. to regulate the tariff of inter-state generating companies and of central government owned generating companies

ii) to regulate the inter-State transmission of electricity

iii) to determine tariff for inter-State transmission of electricity

iv) to issue licenses for inter state electricity transmission and trading.

v) to adjudicate upon inter-State disputes

e) to specify Grid Code

vi) to specify and enforce the standards with respect to quality, continuity and reliability of service

vii) to fix the trading margin

viii) it also has advisory functions, such as formulation of National electricity Policy and tariff policy; promotion of competition, efficiency and economy in the activities of the electricity industry; promotion of investment in electricity industry; any other matter referred to the Central Commission by the Central Government)

State Electricity Regulatory Commissions- **SERC's**:

(Provisions of **Section 86 of The Electricity Act 2003**

- i. determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail within the State
- ii. regulate electricity purchase and procurement process of distribution licensees
- iii. facilitate intra-State transmission and wheeling of electricity

- iv. issue licenses for intra state transmission, distribution and trading.
- v. promote co-generation and generation of electricity from renewable sources of energy
- vi. adjudicate upon the intra-state disputes
- vii. specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- viii. fix the trading margin in the intra-State trading of electricity
- ix. They also have advisory functions, that include promotion of competition, efficiency and economy in activities of the electricity industry; promotion of investment in electricity industry; reorganization and restructuring of electricity industry in the State; matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.

Annexure I also include the PDF Document attached which includes 65 clearances for setting up a thermal power plant.

OBSTACLE RACE: Sixty-five clearances required for a thermal power project

| | Central / state / local | Central / state / local | Central / state / local |
|---|---|-------------------------|-------------------------|
| PRE-DEVELOPMENT | | | |
| > Corporate | | | |
| 1 | Certificate of incorporation, commencement of business | C | |
| 2 | Filing of industrial enterprise memorandum | C | |
| 3 | Sales tax registration | S | |
| 4 | ITPAN No. | C | |
| 5 | Offshore financing arrangements, tax confirmation, insurance and IPO | C | |
| 6 | Mega-power status | C | |
| 7 | Memorandum of understanding with state govt | S | |
| 8 | Import-export code | C | |
| > Labour | | | |
| 9 | Registration under the State Employees Insurance Act, 1948 | S | |
| 10 | Registration under Minimum Wages Act. I | S | |
| 11 | Registration under Labour Act | S | |
| 12 | Registration under the Provident Funds Act | S | |
| > Land Acquisition / ROW / Connectivity | | | |
| 13 | Approval for land requirement | S | |
| 14 | Stamp duty exemption | S | |
| 15 | Private land acquisition | S/L | |
| 16 | Allocation of govt land | S | |
| 17 | Allocation of forest land & forest land clearance | S | |
| 18 | Conversion of land use to non-agriculture purposes | L | |
| 19 | Allocation of tribal land | S | |
| 20 | Allocation of land for fuel transport (Railway siding) | S | |
| 21 | Water intake pipeline - right of way (ROW) | S | |
| 22 | Land acquisition for water intake pump house | S | |
| 23 | Construction power line - ROW | S | |
| 24 | Power evacuation line - ROW | S | |
| 25 | Airstrip and helicopter landing pad, and use of helicopter and / or other aircraft | C | |
| 26 | Provision of telecommunications and satellite facilities | C | |
| > Coastal Regulatory Zone (CRZ) | | | |
| 27 | CRZ clearance | S | |
| 28 | Water drawal permission | S | |
| > Water Linkage | | | |
| 29 | Approval for water drawal from perennial river / dam | S | |
| 30 | Approval for water intake system design | S | |
| 31 | Permission for use of ground water during construction | S | |
| > Coal | | | |
| 32 | Coal linkage / supply agreement / application for allotment for coal block | C | |
| 33 | Permission for railway siding / ROW for rail track | C | |
| 34 | Preparation & approval of mining plan | S | |
| 35 | Fuel transport agreement | C | |
| 36 | Approval for usage of waterfront & construction of jetty (in case sea front is used for transport) | S | |
| > Power Purchase Agreement (PPA) | | | |
| 37 | Power purchase agreement (PPA) | S | |
| > Environmental Clearances | | | |
| 38 | No-objection certificate / consent to establish | S | |
| 39 | Approval of rehabilitation & resettlement plan | C | |
| 40 | EIA study, public hearing, submission of report | L | |
| 41 | TOR / environment clearance | OS | |
| > Miscellaneous Clearances | | | |
| 42 | Permission for various imports / spares pursuant to the Foreign Trade (Development and Regulation) Act, 1992 | C | |
| 43 | Clearance for transportation of heavy material / machinery on roads / bridge | OS | |
| 44 | NOI for construction | L | |
| 45 | No-objection certificate for storage of construction materials and chemicals, etc. | L | |
| 46 | Chimney / stack height clearance | C | |
| 47 | Approval of proposed design and construction of the project pursuant to section 6 of the factories act, 1948. | S | |
| 48 | Defence clearance | C | |
| 49 | Construction power approval | S | |
| 50 | Approvals acc to explosive act for blasting & allied activities for site preparation | S | |
| > Power Evacuation and Open Access | | | |
| 51 | Approval from transmission utility | OS | |
| 52 | Execution of Bulk Purchase Transmission Agreement | STU / CTU | |
| POST-DEVELOPMENT | | | |
| 53 | Approval for factories - pre- and post-installation | S | |
| 54 | Essentiality certificate for import duty concession | S | |
| 55 | Approval for electrical layout - pre- and post-installations | S | |
| 56 | Approval and registration of steam generator and allied pressure parts as per Indian Boiler Regulation | S | |
| 57 | Consent to operate plant | S | |
| 58 | Customs clearance for capital goods import | C | |
| 59 | Consent under the Factories Act, 1948, relating to fire fighting capability | S | |
| 60 | CEIG clearance | S | |
| 61 | Approval of weigh bridge and weigh scales | S | |
| 62 | Approval acc to Indian petroleum Act and petroleum rules for storage and transport of petroleum product | S | |
| 63 | Approval acc to gas cylinder rules and handling and transport of compressed gases | S | |
| 64 | Review the frequency used for Power Line Carrier Communication system to ensure no interference with other power line users | C | |
| 65 | Commissioning & COD certification | S | |