Chapter 5
Marketing of Power Sector in India

5.0 Electricity value chain:
Marketing of Power is different from other products and services due to its peculiarity of non-storage and power must be sold the instant it is produced.
The electricity industry comprises of different services such as: Generation, Transmission, Distribution, Power Supply or Trading, System Support and Reliability Services.
In electricity market, vertically integrated utilities have been providing all of these services as a package to the consumers. The details of electricity value chain are given below in Figure 5.1.

Fig 5.1: Electricity value chain.

Generation:
Generation involves production of electrical power by coal and gas based thermal power plants, hydroelectric plants, nuclear power plants, renewable energy technologies namely wind and solar energy. Generation is easily adaptable to private investment and is not a natural monopoly. This may be one of the reasons that deregulation of the electricity started with generation.

Transmission:
Electricity generated by power plants is to be transported to distant centers through a state/ nationwide grid of high voltage transmission lines. Bulk transmission of electrical power is carried out at high voltage to minimise transmission line losses. Like Generation, transmission is a capital intensive sector and is significantly affected by
economics of scale. Possession of transmission lines can yield unfair competitive advantage to owners of the transmission lines if they are also interested in other sectors of the electricity industry, such as generation, distribution, trading.

**Distribution:**
Distribution deals with the bulk transfer of electricity from generation plants to major consumption centers and is the retail business of reaching each and every electricity consumer with phase, neutral to supply his requirement.

**System support services:**
Electricity call centers log and monitor complaint responses and are further supported by customer service centers, with extended hours and computerised billing rolled out across several state electricity boards. As per Asian Development Bank (ADB) report, customer satisfaction has increased with better reliability and quality of power supply and lowering of transaction costs when dealing with state electricity boards (for instance because of online collective and billing centers).

**Trading:**
Electricity trading involves purchase of electricity from generators and resale of the same to consumers or distributors.

**Reliability of services:**
Just generating electricity and transmitting to the consumer’s premises is not the end of electricity industry. The present electric power system is a complex network of wires with generators and loads located at various nodal points with quite complex interactions between them. Even a momentary imbalance between electricity demand and supply can cause serious disruptions to the power system. Electric power systems therefore requires several services in order to maintain power supply quality & reliability and are collectively called ancillary services. These ancillary services can be supplied by generators, or by loads.

**Consumers:**
Consumers are the most vital link of the value-chain. The entire electricity value chain efficiency would depend on how the consumer’s needs are met and the consumers are satisfied.
5.1 Electricity as a Consumer Right:

On 1.8.2006 Maharashtra Electricity Regulatory Commission (MERC) issued the Consumers' Rights Statement which is a synopsis of rights available under the Electricity Act 2003 to consumers of electricity, with the twin objectives of enabling consumers to protect themselves by creating an awareness regarding the rights available and the service as well as the level of quality that consumers may reasonably expect from the electricity distribution companies in their area of supply.

Electricity Consumer's Rights Statement:

Consumers have the following basic rights to have access to information on matters related to electricity supply –

**Right to Know:**
1. The conditions and procedure for getting new connection, disconnection, reconnection, change in load/name/tariff category.
2. Standards of performance regarding quality to be maintained and services to be provided by Distribution Licensees.
3. The code of practice on payment of bills.
4. Complaint handling procedures and grievance redressal.
5. Tariff schedule and other schedule of charges approved by the Maharashtra Electricity Regulatory Commission ("MERC").
6. Correctness of meter.
7. To know and choose the electric service provider upon fulfilling certain eligibility conditions under Open Access and implementation of retail competition.

Procedure for getting New Connection:

Consumers have several rights, namely:
1. To receive application form(s) free of cost at any of the offices of electricity distribution companies in their area of supply.
2. To access the application form and format of the agreement to be executed for obtaining new connections from the website of the electricity distribution company in order to download the electronic media version of the application form as well as agreement format.
3. To know the status of their application and information about the reasons of non-
disposal or rejection thereof, personal hearing, appeal and removal of deficiencies.

4. To receive a copy of the agreement after the same has been executed for obtaining a new connection.

5. To receive prior intimation regarding the visit/entry into their premises by an authorized representative of the electricity distribution company in their area of supply.

6. To demand proof of identity from such representatives of the electricity distribution company visiting their premises.

7. To know the charges that the applicant/consumer has to pay to get the supply/new connection as per Schedule of charges approved by MERC.

8. To receive supply within the time provided in the Electricity Act, 2003 ("EA 2003") read with the Standards of Performance regulations notified by the MERC after following the correct procedure as laid down in the Electricity Supply Code notified by the MERC on payment of fees and charges as per Schedule of charges approved by MERC.

9. To receive the receipt of fees and charges paid to the Distribution Licensee.

**Security Deposit:**

1. It is the responsibility of consumer to deposit security by way of cash/cheque/demand draft but consumer having monthly consumption not less than One Lac units has a right to opt for irrevocable letter of credit, or unconditional bank guarantee issued by a scheduled commercial bank.

2. On payment of security deposit in cash (including cheque/demand draft), consumers have the right to receive interest, provided that the deposit amount (in cash) is Rs. 50 or more.

3. Excess amount deposited by consumer towards Security is refundable to the consumers with interest.

**Meters:**

1. The energy meter measures the amount of energy consumed, maximum demand and other electrical parameters of tariff applicable and is used by the electricity distribution company to determine the monthly bill. Authorised representatives of the electricity distribution company have the right to access the meter for the
purposes of installing, reading, repairing, replacing and testing the meter.

2. Consumers can purchase the meter from the electricity distribution company or any supplier of meters as per the specifications of the Central Electricity Authority.

3. Consumers have the right to get the meter tested for accuracy upon making a request to the electricity distribution company and upon payment of testing charges. Besides the testing facility of the electricity distribution company, consumers have the right to get the meter tested at such facility as may be approved by the MERC. Consumers have the right to receive a copy of the meter test report, which in any case should be provided within two months from the date of request for testing.

Billing:
Consumers have the right to -

1. Receive bills with such detailed particulars (including due date for payment) as specified in the Electricity Supply Code notified by the MERC at the intervals of at least once in every two months in respect of consumers in town and cities and at least once in three months in respect of all other consumers. A duplicate copy of the bill may also be demanded in case of loss of the original bill and to know the amount of the bill (including due date for payment) on the spot from the office of the electricity distribution company designated for the purpose. Consumers also have the right to report non-receipt or loss of bill over telephone and to request for the amount of the bill (including due date for payment) after providing identity verification.

2. Demand from the electricity distribution company an explanation of the basis of computation of the bill.

Right to receive Notice and due Process prior to Disconnection and Procedure of Reconnection:
Consumers have a right

1. To receive minimum fifteen clear days' notice in writing before disconnection under default of payment under Section 56 of the Act.

2. To pay under protest an amount equal to the sum claimed from him or the electricity charges due from him for each month calculated on the basis of average
charge for electricity paid by him during preceding six months, whichever is less, pending disposal of any dispute between him and the Distribution Licensee.

3. To receive thirty days notice in writing before disconnection for failure to deposit required security amount under Section 47 of the Act.

4. To receive supply after removing cause(s) of the disconnection by the consumer and obtaining the reconnection order by paying the amounts due within a period stipulated in Standards of Performance Regulations.

5. Right of prior notice is not available in cases where the consumer's installation poses a danger to the health or safety of other consumers or electricity supplier's employees or the public and in cases where the consumer is indulging in theft or unauthorized use of electricity.

**Standards of Performance of electricity distribution companies:**

Certain Standards of Performance of the electricity distribution companies are guaranteed under the Standards of Performance regulations notified by the MERC. Consumers have a right to receive service at such standards, some of which are provided below:

1. To receive supply at the voltage and frequency as per Standards of Performance regulations notified by the MERC at the point of supply.

2. To lodge a complaint to customer care centre and get it rectified in case of -
   2.1 Failure of Supply.
   2.2 Unsafe or dangerous condition (e.g. electric shock, fire etc.) of installation or distribution - transmission system.
   2.3 Theft or unauthorized use of electricity. Distribution Licensee shall take necessary actions and ensure about remedy.

3. To have meter(s) read by the authorized representative(s) of the electricity distribution company as per time schedule provided in the Standards of Performance regulations notified by the MERC.

4. To seek change in name or change in tariff category.

5. To seek addition/reduction in contract demand/sanctioned load.

6. To seek closure of account.

7. To claim compensation on account of failure to maintain Standards of Performance by the electricity distribution company.
Consumer service centre:
Consumers have a right to visit personally or to communicate with the help of any medium of communication to consumer service centers established by the electricity distribution companies to get information or to lodge the complaint. The consumer service centers will provide essential services including facility for payment of bills.

Copies of Consumer Rights Statement, Electricity Supply Code, Standards of Performance Regulations, Terms and Conditions of Supply, Schedule of charges, Tariff Schedule:
Consumers have the right to demand copies of the above documents on payment of reproduction charges (Consumer Right Statement: will be free of cost), from consumer service centers, division office, circle office, section office, ward office of the electricity distribution company. Consumers also have the right to access above documents from the website of the electricity distribution company in order to download the electronic media version of the above documents.6

Complaint handling and grievance redressal:
Consumers have the right to have their grievances redressed in accordance with the regulations notified by the MERC under the provisions of Section 42 (5) and (7) of the EA 2003. A synopsis of the rights available to consumers is provided below:

1. To demand from cash collection centers and offices of the electricity distribution company copies of the rules and procedures for redressal of grievances made by the electricity distribution company as well as the regulations notified by the MERC under the provisions of Section 42 (5) and (7) of the EA 2003, by paying photocopying charges.
2. To know from the electricity distribution company the postal and street address, the phone and fax number and, if available, electronic mail address of the Internal Grievance Redressal Cells ("IGR Cells"), Consumer Grievance Redressal Forums ("Forums") and Electricity Ombudsman.
3. To know from the electricity distribution company -
   a) The manner and the form in which a grievance may be made to the IGR Cells.
   b) The assistance available from and the duties of the IGR Cells;
c) The assistance available from the Forums;

4. All remedies in law available regarding an act or failure to act in respect of a right or duty conferred or imposed on the electricity distribution company by the EA 2003 or Regulations, as the case may be, including the manner of filing an appeal to the Electricity Ombudsman;

5. Any additional rules, procedures or circulars made or issued in relation to the regulations notified by the MERC under the provisions of Section 42 (5) and (7) of the EA 2003.

The customer complaint responses are influenced by a multitude of situational product or services and personal variables and unrelated to put triggered by the intensity of dissatisfaction.


These are,

1. Exiting
2. Direct Voicing
3. Amplified Voicing

1. Exiting:

It involves the customer’s establishing a personal boycott against the seller or manufacturer to avoid a repetition of the original transaction that led to dissatisfaction.

2. Direct Voicing:

In this case the customer is directly contacting and voicing his complaints to the seller. However, exiting is unlikely, for example if the seller is a monopolistic public utility in the absence of the competition, the consumer even though is dissatisfied with the product or service has no choice than to continue with the existing services.

For example: the consumers of electricity and cooking gas etc., today even though at times may be dissatisfied with the products, services, relationships with the utility service providers, they are constrained to continue dealing with existing services as there is no opportunity of exit and the customers are also not being recognized.
3. Amplified Voicing:
Amplified Voicing occurs when the consumer enlists the support of third parties such as newspaper journalists, consumer protestor agencies. In India, Consumer Redressal Forums or industry regulatory or self-regulatory bodies act on behalf of their customers. For example, in case of Maharashtra State Electricity Distribution Company Ltd. (MSEDCL), consumers in Pune area are addressing their complaints through two organisations namely i) Prayas and ii) SNM (Sajak Nagarik Manch).

5. 2 Mismatch between demand and supply:
Since independence the power sector in India is witnessing major changes. The demand for power has always outstripped the supply. Substantial peak and energy shortages prevail in the country. The installed generation capacity in India, which was 1362 MWs in 1947, has increased to over about 1.10 lakhs MWs at present. The CEA has projected a demand of 1.77 lakhs MWs by the year 2012. The per capita consumption has increased from 178 Kwh in 1985-86 to 379 Kwh in 2003-04. The per-capita consumption in India is extremely low as compared to other developed countries. There was an energy shortage of 7% in 2003-04 with a peak shortage of 11%. This is mainly due to the inherent perils of the Indian power sector like monopoly control of power utilities by the government, operational inefficiency, mounting technical and commercial losses, huge gap between the cost of supply and the tariff and absence of competition leading to monopolistic exploitations.1
The installed interconnected generation capacity of the national grid as of 1 April 2007 is shown in Table 5.1. Frequent supply interruptions and poor power quality has driven many industries to develop captive generation plant having combined capacity of about 25,000 MW.
### Table 5.1: Installed interconnected generation capacity of the national grid

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>70,686</td>
</tr>
<tr>
<td>Gas</td>
<td>13,692</td>
</tr>
<tr>
<td>Diesel</td>
<td>1,202</td>
</tr>
<tr>
<td>Hydropower</td>
<td>34,654</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>7,760</td>
</tr>
<tr>
<td>Nuclear</td>
<td>4,120</td>
</tr>
<tr>
<td>Total</td>
<td>132,114</td>
</tr>
</tbody>
</table>


### Table 5.2: Electricity consumption by consumer category

<table>
<thead>
<tr>
<th>Consumer Category</th>
<th>Consumption (Gigawatt-hours)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>89,736</td>
<td>25</td>
</tr>
<tr>
<td>Commercial</td>
<td>28,201</td>
<td>8</td>
</tr>
<tr>
<td>Industrial</td>
<td>124,573</td>
<td>35</td>
</tr>
<tr>
<td>Traction</td>
<td>9,210</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture</td>
<td>87,089</td>
<td>24</td>
</tr>
<tr>
<td>Others</td>
<td>22,128</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>360,937</td>
<td>100</td>
</tr>
</tbody>
</table>

### Table 5.2 Electricity consumption by consumer category

#### 5.2.1 Zone wise gaps in demand and supply of electricity in India:

There is a gap in the demand and supply of electricity in India. This gap is uneven between the various zones; the gap being the widest in the west zone. Table 5.3 shows Zone wise gaps in demand and supply of electricity in India. -
### Table 5.3: Zone wise gaps in demand and supply of electricity in India

<table>
<thead>
<tr>
<th>State</th>
<th>Demand in MW</th>
<th>Supply MW</th>
<th>Surplus/Deficit</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Zone</td>
<td>29,344</td>
<td>25,062</td>
<td>-4282</td>
<td>-14.6</td>
</tr>
<tr>
<td>West Zone</td>
<td>35,451</td>
<td>26,336</td>
<td>-9115</td>
<td>-25.7</td>
</tr>
<tr>
<td>South Zone</td>
<td>24,344</td>
<td>22,800</td>
<td>-1544</td>
<td>-6.3</td>
</tr>
<tr>
<td>East Zone</td>
<td>9,923</td>
<td>9,446</td>
<td>-477</td>
<td>-4.8</td>
</tr>
<tr>
<td>North East Zone</td>
<td>1,176</td>
<td>1,054</td>
<td>-122</td>
<td>-10.4</td>
</tr>
<tr>
<td>India as a Whole</td>
<td>1,00,238</td>
<td>84,698</td>
<td>-15,540</td>
<td>-15.5</td>
</tr>
</tbody>
</table>

Source: The Indian express

5.2.2 Expected Consumption per Capita:

The Expected Consumption per Capita is shown in Fig. 5.2

**Electricity Consumption per Capita**


**Fig. 5.2: Expected Consumption per Capita**

It can be observed from the above Figure 5.2. that India's per capita consumption is about one-fourth of the world's average, about one fourth of what China consumes and only about 4 percent of what the U.S. Consumes per capita.
Thakur, T, Chairman and Managing Director, Power Trading Corporation (PTC), foresees electricity demand growing 7.2 percent per annum, assuming GDP growth of 9 percent per annum and on an elasticity of 0.8 due to energy efficient technologies and other energy conservation and demand-side management measures. "Keeping this in view, energy generation will need to increase to a level of 1,470,000 million units (MU) by 2016-17 from a level of 1,038,000 MU in 2011-12 to service the increased demand", he calculates.²

The initiatives taken by Indian Government in providing "Electricity to all" by 2012 including weaker sections of Society may be insufficient. Presently, "Six millions Indians do not have access to electricity", states Mr. Sethi, S, Principal Advisor (Energy), Planning Commission. The need for electricity in India is expected to touch about 8,00,000 MW by 2031-32, according to Sethi, S. He further states that it is a matter of great concern in meeting future demand as India does not have the capacity to develop the required equipment and lacks engineering and construction capabilities.³

5.3 Competition in electricity distribution:

Competition in supply and consumer choice is the hallmark of a competitive market. Power industry worldwide has undergone significant changes paving the way for creation of a power market and introduction of competition in wholesale and retail trading of power. Highlights of changes in electricity distribution market in other countries are-

**UK:** The retail supply of electricity has been separated from distribution function, by issue of separate retail supply licence through the existing distribution network. All gas and electricity customers are allowed to change their suppliers. Since May 1999 over 19 million customers have changed their suppliers with savings up to 100 pounds in the energy bills. Average energy prices have fallen by 30%. There are 17 Distribution licensees & over 75 retail supply licensees who are supplying to various consumers including domestic customers. With the issue of multiple licences, consumers have been provided with a choice of suppliers.

**USA:** In Colorado, the retail supply of power has been deregulated. In order to provide customer choice, all types of suppliers of electricity are allowed to compete for retail customers. Suppliers are allowed non-discriminatory open access to the distribution
network. Except for requirement of universal service, exclusive monopoly in the supply including metering and billing service is no longer recognised.

In California retail supply of electricity has three investor owned and two municipal owned vertically integrated companies. Their service areas are discreet zones, and as such they have not competed with each other except for new industrial customer.

Australia (New South Wales): Retail competition in electricity supply was introduced in seven phases based on annual electricity usage in 1996. Initially small number of large industrial customers was allowed to select retail suppliers. By January 2002, all New South Wales customers including household customers were having choice of retail suppliers. There are four state owned suppliers and 17 other retail suppliers.

New Zealand: Separate Retail suppliers & distribution licensees exist. There are 10 retailers & 30 distribution companies.

Japan: In Japan, only extra-high voltage customers are allowed to choose their suppliers.

Croatia: Croatia has recognised retail supply as an independent activity. Retail supply to eligible consumers (annual minimum consumption of 40 MU or more) can be done after obtaining a licence.

The Indian Power sector is undergoing important transitional changes after the introduction of reforms and restructuring in trade, industry and commerce. With the introduction of reforms and restructuring in the power sector, the generation of power, which was a State monopoly, was thrown open to private sector in order to bring in private investment. The Electricity Act aims at developing the sector further by introducing reforms & restructuring in the areas of transmission and distribution of electricity besides providing a conducive atmosphere for private participation in transmission and distribution through multiple licences in these areas.

The domestic players having savoured success in the capital markets and foreign investors eying the Indian power market with renewed interest, the sector is on a massive investment drive. With the sector moving from monopolies to competitive markets, diverse competitive scenarios are likely to emerge.

The GOI and the State Governments are taking several initiatives to reform the power sector by providing appropriate financial, structural as well legal framework to make the sector financially viable and self sustaining with the ultimate objective of providing
reliable and quality power to the consumers at most reasonable and competitive rates. The Regulatory Commissions have been mandated to develop the electricity market with a view to ensure availability of power at competitive rates and also to provide choice of power suppliers to the consumers.

**Provisions of the Electricity Act 2003 enabling competition:**
The Electricity Act 2003 provides an enabling framework to create a competitive and efficient power market. The following are some of the provisions to develop the power market and to introduce competition:

Section 7 provides to establish, operate and maintain a generating company without obtaining a licence subject to complying with Technical Standards.

Section 9 provides for Open Access to captive generators subject to availability of network for transportation.

Section 12 recognises transmission, distribution and trading of electricity as distinct licensed activities.

Proviso- 6 to section 14 provides for issue of parallel distribution licenses to two or more persons through their own distribution network within the same area.

Proviso 9 to section 14 stipulates that a distribution licensee shall not require a licence to undertake trading in electricity.

Section 39 (2) (d) in respect of STU and Section 40 (c) in respect of transmission licensee, specifies that non-discriminatory open access has to be provided to their respective transmission system for use by any licensee or generating company and to any consumer as when open access is provided by the State Commission.

Section 42 (2) mandates the State Commission to introduce Open Access in such phases and subject to such conditions and other operational constraints as may be specified within one year of the appointed date.

Section 42 (3) allows any person to obtain supply from a generating company or any licensee other than the distribution licensee of his area subject to payment of surcharge, wheeling charge and additional surcharge.

Section 49 provides for open access to consumers to enter into agreement with any person for supply or purchase of electricity on such terms & conditions (including tariff) as may be agreed upon by them.
Section 60 provides the appropriate Commission to issue such directions to a licensee or generating company if they enter into any agreement or abuse their dominant position or enter into a combination, which is likely to cause an adverse effect on competition in electricity industry.

Section 62 (1) provides the appropriate Commission to fix only a maximum ceiling of tariff for retail sale of electricity in case where there is more than one distribution licensee in the same area of supply.

Section 63 stipulates that the appropriate Commission shall adopt the tariff if such tariff is determined through bidding.

Section 65 provides for payment of advance subsidy by the state government to compensate the person affected by grant of such subsidy.

Section 66 mandates the appropriate Commission to endeavour to promote development of a market (including trading) in power.

**National Electricity Policy (NEP)**

The NEP has stressed the need to introduce competition in the power sector. Relevant paragraphs of the National Electricity policy on introduction of competition are as under:

“The Electricity Act 2003 enables competing generating companies and trading licensees, besides the area distribution licensees, to sell electricity to consumers when open access is introduced by the State Electricity Regulatory Commissions. As required by the Act, the SERCs shall notify regulations by June 2005 that would enable open access to distribution network in terms of sub-section 2 of section 42 which stipulates that open access would be allowed, not later than five years from 27th January 2004 to consumers who require a supply of electricity where the maximum power to be made available at any time exceeds one megawatt. Section 49 of the Act provides that such consumers who have been allowed open access under section 42 may enter into agreement with any person for supply of electricity on such terms and conditions, including tariff, as may be agreed upon by them. While making regulations for open access in distribution, the SERCs will also determine wheeling charges and cross subsidy surcharge as required under section 42 of the Act.”

“One of the key provisions of the Act on competition in distribution is the concept of multiple licensees in the same area of supply through their own independent
distribution system. State Governments have full flexibility in carving out distribution zones while restructuring the Government Utilities. For grant of second and subsequent licence within the area of an incumbent distribution licensee, a revenue district, municipal council for a smaller urban area or a municipal corporation for a larger urban area as defined in the Article 243(Q) of the Constitution of India (74th Amendment) may be considered as the minimum area. The Government of India would notify within three months, the requirement for compliance by applicant for second and subsequent license for distribution as envisaged in section 14 of the Act. With a view to provide benefit of competition to all sections of the consumers, the second and subsequent license for distribution in the same area shall have obligation to supply to all consumers in accordance with provisions of section 14 of the Electricity Act 2003. The SERCs are required to regulate the tariff including connection charges to be recovered by a distribution licensee under the provisions of the Act. This will ensure that second distribution licensee does not resort to cherry picking by demanding unreasonable connection charges from consumers.”

**Progress of Reforms—**

The enactment of the Electricity Act has opened new vistas for private investments in generation, transmission and distribution. With a view to provide indiscriminate open access in transmission system, the Act prohibits the Transmission Utilities from trading in power. Captive generators are allowed to sell their surplus power through open access and also transmit power from one place to another for their own use on payment of transmission charges. Un-bundling of SEBs has taken place in many states. 14 states have unbundled/corporatised the SEBs and 27 States have constituted SERCs. The Act has also recognised trading as a separate activity and the CERC has already issued inter-state trading licence to many players in the field. The CERC and many states have issued regulations on open access in a phased manner and have also determined transmission tariff and surcharge to be paid for availing open access facility.

Since the sector has been managed by the state owned monopoly utilities, the real impact of the reforms in terms of better service to the consumers, supply of quality power at reasonable and competitive rates and providing choice of suppliers to the consumers, even after five years of reforms is yet to come about. In such a situation, the Commission
has to look to alternative means to achieve the objectives of reforms. One of the Options would be to introduce competition in retail supply.

5.3.1 Competition aimed at consumer benefit:
Presently, the consumers continue to buy power from single monopoly utilities without any choice of supplier. As long as there is a single supplier, the consumer is not likely to get quality power at reasonable rates in each area since there is no competition in that area. The introduction of private companies in telecom and air services has seen a sea change in the prices and quality of services in these sectors. On the contrary, though several SERCs have notified the open access regulations besides fixing surcharge, transmission and wheeling charges, it has hardly helped consumers to come forward to avail open access. There may be compelling reasons such as cross subsidy surcharge, unreasonable transmission charges etc., for the consumers not to go in for open access., Nevertheless competition in the retail supply of electricity without insisting on a parallel network for the second and subsequent licensee will go a long way in introduction of competition in retail supply of power.

To promote market development, a part of the new generating capacities, say 15% may be sold outside long-term PPAs. As the power markets develop, it would be feasible to finance projects with competitive generation costs outside the long-term power purchase agreement framework. In the coming years, a significant portion of the installed capacity of new generation stations could participate in competitive power markets. This will increase the depth of the power market and provide alternatives for both generators and licensees/consumers and in long run would lead to reduction in tariff.4

5.3.2 Extent of competition in future:
The extent of competition in future can be either generic competition among the existing products or substitute products. No one would have imagined the explosive growth in case of telecommunications sector about 2 decades back. Mobile phones have revolutionized the world in communications and reduced the distance between space and time. The consumers need not wait for hours together at STD booths to talk to their near and dear ones. The mobile phone usage has changed consumers’ way of living, thinking and behaving. During nascent stage, mobile phone used to be a status symbol as only affluent class could afford a hand set which used to cost about Rs 1.5 lacs + apart from
exorbitant incoming and outgoing call charges. Today mobile phones have become an integral part of consumer’s life. The explosive growth in telecom sector is due to increased usage of mobile services irrespective of age, income, social class due to affordability of hand sets and very low call rates. Presently the consumer can pick and choose among a wide variety of brands in the market place. There are various reasons for usage of mobile phones by consumers. A wide variety of value added services like ring tones, SMS, MMS, MP 3 player, blue tooth etc are offered by mobile operators. With mobile companies luring customers with aggressive promotions; value added services and special discount schemes, it is not clear whether consumers get attracted with the functional values or emotional values. Similar situation is expected in future in case of power sector.  

5. 3.3 Generic competition:

Power consumers in the Maharashtra state may get an opportunity to choose their power supplier, just like they do when opting for their cell phone or internet service provider. The Maharashtra Electricity Regulatory Commission (MERC) has taken a major step by making public a paper, 'Operationalising Parallel Distribution Licensees (PDL) in Maharashtra' for public discussion. If PDLs are allowed in the state, it would end the monopoly of the Maharashtra State Electricity Distribution Company Limited (MSEDCL), and open the power supply sector to many utilities. The MERC has got the draft prepared by Credit Rating and Information Services of India Ltd (CRISIL). It states, "The MERC is keen on providing eligible customers, the freedom to choose their preferred supplier of electricity, and to promote a competitive retail market. It wants to ensure that parallel distribution, as envisaged in the Electricity Act, 2003, is introduced in an orderly manner and various issues that will have an impact on stakeholders are debated thoroughly." MSEDCL is likely to face competition from private players.14 Presently Torrent Power is already operating for part of operations in Bhiwandi. Also, a few power companies are negotiating with the authorities to supply power at lower rates than MSEDCL. In Mumbai, the power supply is provided by Tata Power, Reliance Energy, BEST and MSEDCL. In the past, there was a consumer’s protest of Reliance Energy which provides electric supply to suburban consumers in Mumbai. Shivsena-BJP party has gone to court against BEST’s increase in power tariff and a few Reliance
Energy customers have switched over to Tata Power supply in Mumbai.09

5.3.4 Competition from substitute products:
There is tremendous scope and opportunity to cater to growing need of power with the substitute products of power supply like, wind, solar photovoltaic, solar thermal and bio-energy sources like municipal solid and liquid waste, industrial waste, bagasse and tapioca (bio-methanation) and small hydro plants These are clean sources of energy and also assist in protecting the environment by reducing carbon emission.5

Presently electricity distribution in USA, UK, Australia and other European Countries is facing competition from substitute products like gas supply for heating purpose only. Gas is a clean fuel which is networked on much of urban world or distributed in liquefied form in cylinders. But gas supply does not provide light nor can it be used for electrical appliances or communication connections. MSEDCL is likely to face competition from gas supply in future. If proactive measures are not taken in improving Levels of satisfaction of present customers now, then it will be difficult for MSEDCL, Pune to stop present customers from switching over to gas supply for their heating requirements. Gas pipelines are being laid in some part of Pune city. Also in the event of their switching over to Gas supply the demand for electricity will reduce drastically as such requirement is about 15% of total power requirement of domestic customers.11 Competition is expected from usage of renewable energy sources by consumers. Renewable sources like wind, solar photovoltaic, solar thermal and bio-energy sources like municipal solid and liquid waste, industrial waste, bagasse and tapioca (bio-methanation) and small hydro plants have potential to develop in future. The clean energy technology action plan for Maharashtra, prepared by Pune-based World Institute of Sustainable Energy (Wise), has estimated that Maharashtra State has a potential to generate 57,000 MW to 2, 13,000 MW of renewable energy. Wise has recommended that Maharashtra make optimum use of its land and water resources to achieve low carbon and sustainable energy for future development.5

5.4 Conclusion:
Very soon power sector will be open to competition and the existing monopoly will be over and consumers will have a choice to choose their distribution company like other countries. The competition is likely from the generic products or substitute products.
References:

3. Business India (2009, Feb 08), Six Million Indians do not have electricity, p.144.
10. Maharashtra Times Correspondent (2009, June 22) Shivsena-BJP to go to court against BEST’s increase in power tariff, *Maharashtra Times, Mumbai*, p.5
14. Thite, D (2010, June 18) MSEDCL likely to lose its monopoly in state, *DNA ,Pune*, p 5