CHAPTER - 1

INTRODUCTION
Chapter 1
Introduction

1.1 MANAGEMENT

1.1.1 MEANING:

Dictionary meaning

**management**

\[ n. \]

1. The act, manner, or practice of managing; handling, supervision, or control: *management of a crisis; management of factory workers.*

2. The person or persons who control or direct a business or other enterprise.

3. Skill in managing; executive ability.
"Management":
(from Old French *ménagement* "the art of conducting, directing", from Latin *manu agere* "to lead by the hand") characterizes the process of leading and directing all or part of an organization, often a business, through the deployment and manipulation of resources (human, financial, material, intellectual or intangible).

Early twentieth-century management writer, Mary Parker Follett defined management as "the art of getting things done through people." One can also think of management functionally, as the action of measuring a quantity on a regular basis and of adjusting some initial plan, and as the actions taken to reach one's intended goal. This applies even in situations where planning does not take place. Situational management may precede and subsume purposive management.

Management is also called "Business Administration", and schools that teach management are usually called "Business Schools". The term "management" may also be used to describe the slate of managers of an organization, for example of a corporation. A governing body is a term used to describe a group formed to manage an organization, such as a sports league.

**Functions of management**

There are 5 management functions and they are **Planning, Organizing, Leading, Co-ordination and Controlling**.

**1.1.2 Historical development**

Some writers trace the development of management thought back to Sumerian traders and ancient Egyptian pyramid builders. Slave-owners through the centuries faced the problems of exploiting/motivating a dependent but sometimes recalcitrant workforce, but many pre-industrial
enterprises, given their small scale, did not feel compelled to face the issues of management systematically. But innovations such as the spread of Arabic numerals (5th to 15th centuries) and the codification of double-entry bookkeeping (1494) provided tools for management assessment, planning and control.

19th century
Modern management as a discipline began as an offshoot of economics in the 19th century. Classical economists such as Adam Smith and John Stuart Mill provided a theoretical background to resource allocation, production, and pricing issues. About the same time, innovators like Eli Whitney, James Watt, and Matthew Boulton developed technical production elements such as standardization, quality control procedures, cost accounting, interchangeability of parts, and work planning. By the middle of the 19th century, Robert Owen, Henry Poor, and M. Laughlin and others introduced the human element with theories of worker training, motivation, organizational structure and span of control. Compare the analyses of Karl Marx and of Friedrich Engels.

By the late 19th century, marginal economists Alfred Marshall and Leon Walras and others introduced a new layer of complexity to the theoretical underpinnings of management. Joseph Wharton offered the first tertiary-level course in management in 1881.

20th century
By about 1900 we find managers trying to place their theories on a thoroughly scientific basis. Examples include Henry Towne's Science of management in the 1890s, Frederick Winslow Taylor's Scientific management (1911), Frank and Lillian Gilbreth's Applied motion study
(1917), and Henry L. Gantt's charts (1910s). J. Duncan wrote the first college management text book in 1911.

The first comprehensive theories of management appeared around 1920. People like Henri Fayol and Alexander Church described the various branches of management and their inter-relationships. In the early 20th century, people like Ordwat Tead, Walter Scott and J. Mooney applied the principles of psychology to management, while other writers, such as Elton Mayo, Mary Parker Follett, Chester Barnard, Max Weber, Rensis Likert, and Chris Argyris approached the phenomenon of management from a sociological perspective.

Peter Drucker wrote one of the earliest books on applied management: *Concept of the Corporation* (published in 1946). It resulted from Alfred Sloan (chairman of General Motors until 1956) commissioning a study of the organisation. Drucker has gone on to write 32 books, many in the same vein.

H. Dodge, Ronald Fisher, and Thorton C. Fry introduced statistical techniques into management. In the 1940s, Patrick Blackett combined these statistical theories with microeconomic theory and gave birth to the science of operations research. Operations research, sometimes known as "management science", attempts to take a scientific approach to solving management problems, particularly in the areas of logistics and operations.

Some of the more recent developments include the theory of constraints, Management by objectives, reengineering, and various information technology driven theories such as agile software development.

As the general recognition of managers as a class solidified during the 20th century and gave perceived practitioners of management a certain amount of prestige, so the way opened for popularised systems of management ideas to
peddle their wares. In this context many management fads may have had more to do with pop psychology than with scientific management theory. Towards the end of the 20th century, business management came to consist of six separate branches, namely:

- Human resource management
- Operations management or production management
- Strategic management
- Marketing management
- Financial management
- Information Technology management

**21st century**

In the 21st century we find it increasingly difficult to subdivide management into functional categories in this way. More and more processes simultaneously involve several categories. Instead, we tend to think in terms of the various processes, tasks, and objects subject to management. A list of some of the areas of management can be found later in this chapter.

It is also the case that many of the assumptions made by management have been under attack from business ethics, critical management studies, and anti-corporate activism.

One consequence is that workplace democracy has become both more common, and more advocated, in some places distributing all management functions among the workers, each of whom takes on a portion of the work. However, these models predate any current political issue, and may be more natural than command hierarchy. All management is to some degree democratic in that there must be majority support of workers for the management in the long term, or they leave to find other work, or go on
strike. Hence management is becoming less about command-and-control, and more about facilitation and support of collaborative activity, utilizing principles such as those of human interaction management to deal with the complexities of human interaction.

1.1.3 Nature of the work of people in company management

In for-profit work, the primary function of management is satisfying a range of stakeholders. This typically involves making a profit (for the shareholders), creating valued products at a reasonable cost (for customers), and providing rewarding employment opportunities (for employees). In nonprofit work it is also important to keep the faith of donors. In most models of management, shareholders vote for the board of directors, and that board then hires senior management. Some organizations are experimenting with other methods of selecting or reviewing managers, senior managers (such as employee voting models) but this is very rare.

In the public sector of countries constituted as representative democracies, politicians are elected to public office. They hire many managers and administrators, and in some countries like the United States a great many people lose jobs during a regime change. 2500 people serve "at the pleasure of the President" including all the top US government executives.

Public, private and voluntary sectors place different demands on managers, but all must retain the faith of those who select them (if they wish to retain their jobs), retain the faith of those people that fund the organization, and retain the faith of those who work for the organization. If they fail to convince employees that they are better off staying than leaving, the organization will be forced into a downward spiral of hiring, training, firing, and recruiting.
Management also has a responsibility to innovate and improve the functioning of the organization. In all but the smallest organizations, achieving these objectives involves a division of management labour. People specialize in a limited range of functions so as to more quickly gain competence and expertise. Even in employee managed workplaces such as a Wobbly Shop, where managers are elected, or where latitude of action is sharply restricted by collective bargaining or unions, managers still take on roughly the same functions and job descriptions as in a more traditional command hierarchy.

**Chief executive officer (CEO)** - The CEO is ultimately responsible for the success or failure of the business. He or she provides overall strategic direction for the firm, often with the assistance of a team of vice presidents. Strategic management decisions like what products to market, what market segments to target, what functions to outsource, what business model to employ, and what geographical areas to operate in are the responsibility of the CEO. The CEO is accountable to the board of directors. Typically a CEO will delegate many responsibilities to one or more executive vice presidents. In small firms, the owner, president, or chief executive officer typically assume many roles and responsibilities.

**Vice president, Marketing** - An executive vice president of marketing might direct overall marketing strategies, advertising, promotions, sales, product management, pricing, and public relations policies. The direct reports of the EVP oversee advertising and promotion. In a small firm, they may serve as a liaison between the firm and the advertising or promotion agency to which many advertising or promotional functions are contracted out. In larger firms, advertising managers oversee in-house account, creative, and media services departments.
Marketing managers - Marketing managers develop the firm's detailed marketing plans and procedures. With the help of subordinates, including product development managers and market research managers, they determine the demand for products and services offered by the firm and its competitors. In addition, they identify potential markets—for example, business firms, wholesalers, retailers, government, or the general public. Marketing managers develop pricing strategy with an eye towards maximizing the firm's share of the market and its profits while ensuring that the customers are satisfied. In collaboration with sales, product development, and other managers, they monitor trends that indicate the need for new products and services and oversee product development. Marketing managers work with advertising and promotion managers to promote the firm's products and services and to attract potential users.

Promotions managers - Promotions managers supervise sales promotion specialists. They direct promotion programs that combine advertising with purchase incentives to increase sales. In an effort to establish closer contact with purchasers—dealers, distributors, or consumers—promotion programs may involve direct mail, telemarketing, television or radio advertising, catalogs, exhibits, inserts in newspapers, Internet advertisements or Web sites, in store displays or product endorsements, and special events. Purchase incentives may include discounts, samples, gifts, rebates, coupons, sweepstakes, and contests.

Public relations managers - Public relations managers supervise public relations specialists. These managers direct publicity programs to a targeted public. They often specialize in a specific area, such as crisis management or in a specific industry, such as healthcare. They use every available communication medium in their effort to maintain the support of the specific
group upon whom their organizations' success depends, such as consumers, stockholders, or the general public. For example, public relations managers may clarify or justify the firms’ point of view on health or environmental issues to community or special interest groups.

They also evaluate advertising and promotion programs for compatibility with public relations efforts and serve as the eyes and ears of top management. They observe social, economic, and political trends that might ultimately affect the firm and make recommendations to enhance the firm's image based on those trends.

They also may confer with labor relations managers to produce internal company communications such as newsletters about employee-management relations and with financial managers to produce company reports. They assist company executives in drafting speeches, arranging interviews, and maintaining other forms of public contact; oversee company archives; and respond to information requests. In addition, some handle special events such as sponsorship of races, parties introducing new products, or other activities the firm supports in order to gain public attention through the press without advertising directly.

Sales managers - Sales managers direct the firm's sales program. They assign sales territories, set goals, and establish training programs for the sales representatives. Managers advise the sales representatives on ways to improve their sales performance. In large, multiproduct firms, they oversee regional and local sales managers and their subordinates. Sales managers maintain contact with dealers and distributors. They analyze sales statistics gathered by their staffs to determine sales potential and inventory requirements and monitor the preferences of customers. Such information is vital to develop products and maximize profits.
Account executive - The account executive manages the account services department, assesses the need for advertising, and, in advertising agencies, maintains the accounts of clients.

Creative director - The creative services department develops the subject matter and presentation of advertising. The creative director oversees the copy chief, art director, and associated staff.

Media director - The media director oversees planning groups that select the communication media—for example, radio, television, newspapers, magazines, Internet, or outdoor signs—to disseminate the advertising.
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1.2 Human Resources Management

1.2.1 MEANING:

Dictionary Meaning

Human Resources

pl.n.

1. *(used with a pl. verb)* The persons employed in a business or organization; personnel.

2. *(used with a sing. verb)* The field of personnel recruitment and management.

Human resources

Human Resources are the fancy word for "people." The human resources department within an organization, years ago known as the "personnel department," manages the administrative aspects of the employees.
Human Resources - HR

The company department charged with finding, screening, recruiting and training job applicants, as well as administering employee-benefit programs.

**The Human Resources Management (HRM)** function includes a variety of activities, and key among them is deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations. Activities also include managing your approach to employee benefits and compensation, employee records and personnel policies. Usually small businesses (for-profit or nonprofit) have to carry out these activities themselves because they can't yet afford part- or full-time help. However, they should always ensure that employees have -- and are aware of -- personnel policies which conform to current regulations. These policies are often in the form of employee manuals, which all employees have.

Note that some people distinguish a difference between HRM (a major management activity) and HRD (Human Resource Development, a profession). Those people might include HRM in HRD, explaining that HRD includes the broader range of activities to develop personnel inside of organizations, including, eg: career development, training, organization development, etc.

There is a long-standing argument about where HR-related functions should be organized into large organizations, eg, "should HR be in the Organization Development department or the other way around?"

The HRM function and HRD profession have undergone tremendous change over the past 20-30 years. Many years ago, large organizations looked to the
"Personnel Department," mostly to manage the paperwork around hiring and paying people. More recently, organizations consider the "HR Department" as playing a major role in staffing, training and helping to manage people so that people and the organization are performing at maximum capability in a highly fulfilling manner.

As companies reorganize to gain competitive edge, human resources plays a key role in helping companies deal with a fast-changing competitive environment and the greater demand for quality employees. Research conducted by The Conference Board has found six key people-related activities that human resources completes to add value to a company:

1. Effectively managing and utilizing people.
2. Trying performance appraisal and compensation to Developing competencies that enhance individual and organizational performance.
3. Increasing the innovation, creativity and flexibility necessary to enhance competitiveness.
4. Applying new approaches to work process design, succession planning, career development and inter-organizational mobility.
5. Managing the implementation and integration of technology through improved staffing, training and communication with employees.

**Human resources** have at least two meanings depending on context. Most commonly within corporations and businesses, **human resources** refers to the individuals within the firm, and to the portion of the firm's organization that deals with hiring, firing, training, and other personnel issues. This usage is derived from the original meaning of **human resources** as variously defined in political economy and economics, where it was traditionally called labor, one of three factors of production. This article will address both definitions.
1.2.2 Human resources in political economy and social sciences

Modern analysis emphasizes that human beings are not predictable commodity "resources" with definitions totally controlled by contract, but are creative and social beings that make contributions beyond "labor" to a society and to civilization. The broad term human capital has evolved to contain the complexity of this term, and in macro-economics the term "firm-specific human capital" has evolved to represent the original meaning of term "human resources".

Advocating the central role of "human resources" or human capital in enterprises and societies has been a traditional role of socialist parties, who claim that value is primarily created by their activity, and accordingly justify a larger claim of profits or relief from these enterprises or societies. Critics say this is just a bargaining tactic which grew out of various practices of medieval European guilds into the modern trade union and collective bargaining unit.

A contrary view, common to capitalist parties, is that it is the infrastructural capital and (what they call) intellectual capital owned and fused by "management" that provides most value in financial capital terms. This likewise justifies a bargaining position and a general view that "human resources" are interchangeable.

A significant sign of consensus on this latter point is the ISO 9000 series of standards which requires a "job description" of every participant in a productive enterprise. In general, heavily unionized nations such as France and Germany have adopted and encouraged such descriptions especially within trade unions. One view of this trend is that a strong social consensus on political economy and a good social welfare system facilitates labor mobility and tends to make the entire economy more productive, as labor
can move from one enterprise to another with little controversy or difficulty in adapting.

An important controversy regarding labor mobility illustrates the broader philosophical issue with usage of the phrase "human resources": governments of developing nations often regard developed nations that encourage immigration or "guest workers" as appropriating human capital that is rightfully part of the developing nation and required to further its growth as a civilization. They argue that this appropriation is similar to colonial commodity fiat wherein a colonizing European power would define an arbitrary price for natural resources, extracting which diminished national natural capital.

The debate regarding "human resources" versus human capital thus in many ways echoes the debate regarding natural resources versus natural capital. Over time the United Nations have come to more generally support the developing nations' point of view, and have requested significant offsetting "foreign aid" contributions so that a developing nation losing human capital does not lose the capacity to continue to train new people in trades, professions, and the arts.

An extreme version of this view is that historical inequities such as African slavery must be compensated by current developed nations, which benefited from stolen "human resources" as they were developing. This is an extremely controversial view, but it echoes the general theme of converting human capital to "human resources" and thus greatly diminishing its value to the host society, i.e. "Africa", as it is put to narrow imitative use as "labor" in the using society.

In the very narrow context of corporate "human resources", there is a contrasting pull to reflect and require workplace diversity that echoes the
diversity of a global customer base. Foreign language and culture skills, ingenuity, humor, and careful listening, are examples of traits that such programs typically require. It would appear that these evidence a general shift to the human capital point of view, and an acknowledgement that human beings do contribute much more to a productive enterprise than "work": they bring their character, their ethics, their creativity, their social connections, and in some cases even their pets and children, and alter the character of a workplace. The term corporate culture is used to characterize such processes.

The traditional but extremely narrow context of hiring, firing, and job description is considered a 20th century anachronism. Most corporate organizations that compete in the modern global economy have adopted a view of human capital that mirrors the modern consensus as above. Some of these, in turn, deprecate the term "human resources" as useless.

As the term refers to predictable exploitations of human capital in one context or another, it can still be said to apply to manual labor, mass agriculture, low skill "McJobs" in service industries, military and other work that has clear job descriptions, and which generally do not encourage creative or social contributions.

In general the abstractions of macro-economics treat it this way - as it characterizes no mechanisms to represent choice or ingenuity. So one interpretation is that, "firm-specific human capital" as defined in macro-economics, is the modern and correct definition of "human resources" - and that this is inadequate to represent the contributions of "human resources" in any modern theory of political economy.

The term **human resources** is variously defined in political economy and economics, where it was traditionally called labor, one of three factors of
production. Its use within corporations continues to define common conceptions of the term. Modern analysis emphasizes that human beings are not predictable commodity "resources" with definitions totally controlled by contract, but are creative and social beings that make contributions beyond "labor" to a society and to civilization. The broad term human capital has evolved to contain the complexity of this term, and in macro-economics the term "firm-specific human capital" has evolved to represent the original meaning of term "human resources".

Advocating the central role of "human resources" or human capital in enterprises and societies has been a traditional role of socialist parties, who claim that value is primarily created by their activity, and accordingly justify a larger claim of profits or relief from these enterprises or societies. Critics say this is just a bargaining tactic which grew out of various practices of medieval European guilds into the modern trade union and collective bargaining unit.

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A significant sign of consensus on this latter point is the ISO 9000 series of standards which requires a "job description" of every participant in a productive enterprise. In general, heavily unionized nations such as France and Germany have adopted and encouraged such descriptions especially within trade unions. One view of this trend is that a strong social consensus on political economy and a good social welfare system facilitates labor
mobility and tends to make the entire economy more productive, as labor can move from one enterprise to another with little controversy or difficult in adapting.

An important controversy, regarding human capital, that is rightfully part of the developing nation and required to further its growth as a civilization, they argue that this appropriation is similar to colonial commodity fiat wherein a colonizing European power would define an arbitrary price for natural resources, extracting which diminished national natural capital.

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An extreme version of this view is that historical inequities such as African slavery must be compensated by current developed nations, which benefited from stolen "human resources" as they were developing. This is an extremely controversial view, but it echoes the general theme of converting human capital to "human resources" and thus greatly diminishing its value to the host society, i.e. "Africa", as it is put to narrow imitative use as "labor" in the using society.

In the very narrow context of corporate "human resources", there is a contrasting pull to reflect and require workplace diversity that echoes the diversity of a global customer base. Foreign language and culture skills, ingenuity, humor, and careful listening, are examples of traits that such programs typically require. It would appear that these evidence a general
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In general the abstractions of macro-economics treat it this way - as it characterizes no mechanisms to represent choice or ingenuity. So one interpretation is that "firm-specific human capital" as defined in macro-economics is the modern and correct definition of "human resources" - and that this is inadequate to represent the contributions of "human resources" in any modern theory of political economy

1.2.3 Human resources within firms

Though human resources have been part of business and organizations since the first days of agriculture, the modern concept of human resources began in reaction to the efficiency focus of Taylorism in the early 1900s. By 1920, psychologists and employment experts in the United States started the
human relations movement, which viewed workers in terms of their psychology and fit with companies, rather than as interchangeable parts. This movement grew throughout the middle of the 20th century, placing emphasis on how leadership, cohesion, and loyalty played important roles in organizational success. Although this view was increasingly challenged by more quantitatively rigorous and less "soft" management techniques in the 1960s and beyond, human resources had gained a permanent role within the firm.

The Society for Human Resource Management (SHRM) is the world’s largest association devoted to human resource management. Representing more than 200,000 individual members, the Society's mission is to serve the needs of HR professionals by providing the most essential and comprehensive resources available. As an influential voice, the Society's mission is also to advance the human resource profession to ensure that HR is recognized as an essential partner in developing and executing organizational strategy.

Founded in 1948, SHRM currently has more than 550 affiliated chapters and members in more than 100 countries. In 2006, SHRM members will meet June 25 - 28 in Washington, DC to network with colleagues from around the world and to attend the most comprehensive and relevant professional development programs designed to improved the knowledge, skills and abilities of HR professionals. General Colin Powell will be one of the keynote speakers.

Humans are an organization's greatest assets; without them, everyday business functions such as managing cash flow, making business transactions, communicating through all forms of media, and dealing with customers could not be completed. Humans and the potential they possess
drive an organization. Today's organizations are continuously changing. Organizational change impacts not only the business but also its employees. In order to maximize organizational effectiveness, human potential—individuals' capabilities, time, and talents—must be managed. Human resource management works to ensure that employees are able to meet the organization's goals.

"Human resource management is responsible for how people are treated in organizations. It is responsible for bringing people into the organization, helping them perform their work, compensating them for their labors, and solving problems that arise" (Cherrington, 1995, p. 5). There are seven management functions of a human resources (HR) department that will be specifically addressed: staffing, performance appraisals, compensation and benefits, training and development, employee and labor relations, safety and health, and human resource research.

Generally, in small organizations, those with fewer than a hundred employees, there may not be an HR department, and so a line manager will be responsible for the functions of HRM. In large organizations, those with a hundred employees or more, a human resource manager will coordinate the HRM duties and report directly to the chief executive officer (CEO). HRM staff in larger organizations may include human resource generalists and human resource specialists. As the name implies, an HR generalist is routinely involved with all seven HRM functions, while the HR specialist focuses attention on only one of the seven responsibilities.

Prior to discussing the seven functions, it is necessary to understand the job analysis. An essential component of any HR unit, no matter the size, is the job analysis, which is completed to determine activities, skills, and knowledge required of an employee for a specific job. Job analyses are
"performed on three occasions: (1) when the organization is first started, (2) when a new job is created, and (3) when a job is changed as a result of new methods, new procedures, or new technology" (Cherrington, 1995).

Jobs can be analyzed through the use of questionnaires, observations, interviews, employee recordings, or a combination of any of these methods. Two important tools used in defining the job are (1) a job description, which identifies the job, provides a listing of responsibilities and duties unique to the job, gives performance standards, and specifies necessary machines and equipment; and (2) the job specification, which states the minimum amount of education and experience needed for performing the job (Mondy and Noe, 1996).

**Staffing**

Both the job description and the job specification are useful tools for the staffing process, the first of the seven HR functions to be discussed. Someone (e.g., a department manager) or some event (e.g., an employee's leaving) within the organization usually determines a need to hire a new employee. In large organizations, an employee requisition must be submitted to the HR department that specifies the job title, the department, and the date the employee is needed. From there, the job description can be referenced for specific job related qualifications to provide more detail when advertising the position either internally, externally, or both (Mondy and Noe, 1996).

Not only must the HR department attract qualified applicants through job postings or other forms of advertising, but it also assists in screening candidates' resumes and bringing those with the proper qualifications in for an interview. The final say in selecting the candidate will probably be the line manager's, assuming all Equal Employment Opportunity Commission
(EEOC) requirements are met. Other ongoing staffing responsibilities involve planning for new or changing positions and reviewing current job analyses and job descriptions to make sure they accurately reflect the current position.

**Performance Appraisals**

Once a talented individual is brought into an organization, another function of HRM comes into play creating an environment that will motivate and reward exemplary performance. One way to assess performance is through a formal review on a periodic basis, generally annually, known as a *performance appraisal* or *performance evaluation*. Because line managers are in daily contact with the employees and can best measure performance, they are usually the ones who conduct the appraisals. Other evaluators of the employee's performance can include subordinates, peers, group, and self, or a combination of one or more (Mondy and Noe, 1996).

Just as there can be different performance evaluators, depending on the job, several appraisal systems can be used. Some of the popular appraisal methods include (1) ranking of all employees in a group; (2) using rating scales to define above-average, average, and below-average performance; (3) recording favorable and unfavorable performance, known as critical incidents; and (4) managing by objectives, or MBO (Mondy and Noe, 1996). Cherrington (1995) illustrates how performance appraisals serve several purposes, including: (1) guiding human resource actions such as hiring, firing, and promoting; (2) rewarding employees through bonuses, promotions, and so on; (3) providing feedback and noting areas of improvement; (4) identifying training and development needs in order to improve the individual's performance on the job; and (5) providing job related data useful in human resource planning.
Compensation and Benefits

Compensation (payment in the form of hourly wages or annual salaries) and benefits (insurance, pensions, vacation, modified workweek, sick days, stock options, etc.) can be a catch-22 because an employee's performance can be influenced by compensation and benefits, and vice versa. In the ideal situation, employees feel they are paid what they are worth, are rewarded with sufficient benefits, and receive some intrinsic satisfaction (good work environment, interesting work, etc.). Compensation should be legal and ethical, adequate, motivating, fair and equitable, cost-effective, and able to provide employment security (Cherrington, 1995).

Training and Development

Performance appraisals not only assist in determining compensation and benefits, but they are also instrumental in identifying ways to help individuals improve their current positions and prepare for future opportunities. As the structure of organizations continues to change—through downsizing or expansion—the need for training and development programs continues to grow. Improving or obtaining new skills is part of another area of HRM, known as training and development.

"Training focuses on learning the skills, knowledge, and attitudes required to initially perform a job or task or to improve upon the performance of a current job or task, while development activities are not job related, but concentrate on broadening the employee's horizons" (Nadler and Wiggs, 1986, p. 5). Education, which focuses on learning new skills, knowledge, and attitudes to be used in future work, also deserves mention (Nadler and Wiggs, 1986).

Because the focus is on the current job, only training and development will be discussed. Training can be used in a variety of ways, including (1)
orienting and informing employees, (2) developing desired skills, (3) preventing accidents through safety training, (4) supplying professional and technical education, and (5) providing supervisory training and executive education (Cherrington, 1995).

Each of the training methods mentioned has benefits to the individual as well as to the organization. Some of the benefits are reducing the learning time for new hires, teaching employees how to use new or updated technology, decreasing the number and cost of accidents because employees know how to operate a machine properly, providing better customer service, improving quality and quantity of productivity, and obtaining management involvement in the training process (Cherrington, 1995). When managers go through the training, they are showing others that they are taking the goals of training seriously and are committed to the importance of human resource development.

The type of training depends on the material to be learned, the length of time learners have, and the financial resources available. One type is instructor-led training, which generally allows participants to see a demonstration and to work with the product first-hand. On-the-job training and apprenticeships let participants acquire new skills as they continue to perform various aspects of the job. Computer-based training (CBT) provides learners at various geographic locations access to material to be learned at convenient times and locations. Simulation exercises give participants a chance to learn outcomes of choices in a nonthreatening environment before applying the concept to real situations.

Training focuses on the current job, while development concentrates on providing activities to help employees expand their current knowledge and to allow for growth. Types of development opportunities include mentoring,
career counseling, management and supervisory development, and job training (Cherrington, 1995).

**Employee and Labor Relations**

Just as human resource developers make sure employees have proper training, there are groups of employees organized as unions to address and resolve employment-related issues. Unions have been around since the time of the American Revolution (Mondy and Noe, 1996). Those who join unions usually do so for one or both of two reasons— to increase wages and/or to eliminate unfair conditions. Some of the outcomes of union involvement include better medical plans, extended vacation time, and increased wages (Cherrington, 1995).

Today, unions remain a controversial topic. Under the provisions of the Taft-Hartley Act, the *closed-shop arrangement* states employees (outside the construction industry) are not required to join a union when they are hired. *Union-shop* arrangements permit employers to hire non-union workers contingent upon their joining the union once they are hired. The Taft-Hartley Act gives employers the right to file unfair labor practice complaints against the union and to express their views concerning unions (Cherrington, 1995).

Not only do HR managers deal with union organizations, but they are also responsible for resolving collective bargaining issues—namely, the contract. The contract defines employment related issues such as compensation and benefits, working conditions, job security, discipline procedures, individuals' rights, management's rights, and contract length. Collective bargaining involves management and the union trying to resolve any issues peacefully—before the union finds it necessary to strike or picket and/or management decides to institute a lockout (Cherrington, 1995).
Safety and Health

Not only must an organization see to it that employees' rights are not violated, but it must also provide a safe and healthy working environment. Mondy and Noe (1996) define *safety* as "protecting employees from injuries caused by work-related accidents" and *health* as keeping "employees free from physical or emotional illness" (p. 432). In order to prevent injury or illness, the Occupational Safety and Health Administration (OSHA) was created in 1970. Through workplace inspections, citations and penalties, and on-site consultations, OSHA seeks to enhance safety and health and to decrease accidents, which lead to decreased productivity and increased operating costs (Cherrington, 1995).

Health problems recognized in the workplace can include the effects of smoking, alcohol and drug/substance abuse, AIDS, stress, and burnout. Through employee assistance programs (EAPs), employees with emotional difficulties are given "the same consideration and assistance" as those employees with physical illnesses (Mondy and Noe, 1996, p. 455).

Human Resource Research

In addition to recognizing workplace hazards, organizations are responsible for tracking safety- and health-related issues and reporting those statistics to the appropriate sources. The human resources department seems to be the storehouse for maintaining the history of the organization— everything from studying a department's high turnover or knowing the number of people presently employed, to generating statistics on the percentages of women, minorities, and other demographic characteristics. Data for the research can be gathered from a number of sources, including surveys/questionnaires, observations, interviews, and case studies (Cherrington, 1995). This research
better enables organizations to predict cyclical trends and to properly recruit and select employees.

**HUMAN RESOURCE MANAGEMENT SYSTEM**

Human Resource Management Systems (HRMS, EHRMS), Human Resource Information Systems (HRIS), HR Technology or also called HR modules, shape an intersection in between human resource management (HRM) and information technology. It merges HRM as a discipline and in particular its basic HR activities and processes with the information technology field, whereas the planning and programming of data processing systems evolved into standardised routines and packages of enterprise resource planning (ERP) software. On the whole, these ERP systems have their origin on software that integrates information from different applications into one universal database. The linkage of its financial and human resource modules through one database is the most important distinction to the individually and proprietary developed predecessors, which makes this software application both rigid and flexible.

**The HR function's reality**

All in all, the HR function is still to a large degree administrative and common to all organizations. To varying degrees, most organisations have formalised selection, evaluation, and payroll processes. Efficient and effective management of the "Human Capital" Pool (HCP) has become an increasingly imperative and complex activity to all HR professionals. The HR function consists of tracking innumerable data points on each employee, from personal histories, data, skills, capabilities, experiences to payroll records. To reduce the manual workload of these administrative activities, organisations began to electronically automate many of these processes by
introducing innovative HRMS/HCM technology. Due to complexity in programming, capabilities and limited technical resources, HR executives rely on internal or external IT professionals to develop and maintain their Human Resource Management Systems (HRMS). Before the "client-server" architecture evolved in the late 1980s, every single HR automation process came largely in form of mainframe computers that could handle large amounts of data transactions. In consequence of the high capital investment necessary to purchase or program proprietary software, these internally developed HRMS were limited to medium to large organisations being able to afford internal IT capabilities. The advent of client-server HRMS authorised HR executives for the first time to take responsibility and ownership of their systems. These client-server HRMS are characteristically developed around four principal areas of HR functionalities: 1) "payroll", 2) time and labour management 3) benefits administration and 4) HR management.

The **payroll model** automates the pay process by gathering data on employee time and attendance, calculating various deductions and taxes, and generating periodic paycheques and employee tax reports. Data is generally fed from the human resources and time keeping modules to calculate automatic deposit and manual cheque writing capabilities. Sophisticated HCM systems can set up accounts payable transactions from employee deduction or produce garnishment cheques. The payroll module sends accounting information to the general ledger for posting subsequent to a pay cycle.

The **time and labour management module** applies new technology and methods (time collection devices) to cost effectively gather and evaluate employee time/work information. The most advanced modules provide
broad flexibility in data collection methods, as well as labour distribution capabilities and data analysis features. This module is a key ingredient to establish organizational cost accounting capabilities.

The **benefit administration model** permits HR professionals to easily administer and track employee participation in benefits programs ranging from healthcare provider, insurance policy, and pension plan to profit sharing or stock option plans.

The **HR management module** is a component covering all other HR aspects from application to retirement. The system records basic demographic and address data, selection, training and development, capabilities and skills management, compensation planning records and other related activities. Leading edge systems provide the ability to "read" applications and enter relevant data to applicable database fields, notify employers and provide position management and position control.

Typically, HRMS/HCM technology replaces the four core HR activities by streamlining them electronically; 1) payroll, 2) time and labour management, 3) benefit administration and 4) HR management. While using the internet or corporate intranet as a communication and workflow vehicle, the HRMS/HCM technology can convert these into web-based HRMS components of the ERP system and permit to reduce transaction costs, leading to greater HR and organisational efficiency. Through employee or manager self-service (ESS or MSS), HR activities shift away from paper based processes to using self-service functionalities that benefit employees, managers and HR professionals alike. Costly and time consuming HR administrative tasks, such as travel reimbursement, personnel data change, benefits enrolment, enrolment in training classes (employee side) and to instruct a personnel action, authorise access to information for employees
(manager's side) are being individually handled and permit to reduce HR transaction time, leading to HR and organisational effectiveness. Consequently, HR professionals can spend fewer resources in managing administrative HR activities and can apply freed time and resources to concentrate on strategic HR issues, which lead to business innovation.

1.2.4 Scope of HRM:
The scope of HRM is indeed vast. All major activities, in the working life of a worker from the time of his or her entry in to an organization until he or she leaves, come under the preview of HRM. Specifically, the activities included are….

- HR Planning
- Job Analysis and Design
- Recruitment and selection
- Orientation and Placement
- Training and Development
- Performance appraisal and Job evaluation
- Employee and Executive Remuneration
- Motivation Communication
- Welfare
- Safety and Health
- Industrial Relation
- And the like
For the sake of convenience, we can categories all these functions in seven sections:-

1. Introduction to HRM
2. Employee Hiring
3. Employee and executive remuneration
4. Employee motivation
5. Employee maintenance
6. Industrial relation
7. Prospects of HRM

(As given in figure)
Figure 1.1
Scope Of HRM
1.3 Human Resource Development

1.3.1 What is HRD........?

HRD is mainly concerned with developing the skills, knowledge and competencies of people and it is a people-oriented concept. When we call it a people-oriented concept, whether the question of people will be developed in the larger or national context or in the smaller organizational context? HRD can be applied both for the national level and organizational level.

Leonard defined HRD as “THOSE LEARNING EXPERIENCES WHICH ARE ORGANISED FOR A SPECIFIC TIME AND DESIGNED TO BRING ABOUT THE POSSIBILITY OF BEHAVIORAL CHANGE.”
Figure 1.2
THE COMPONENT OF HRD

Development of leadership & Organizational Commitment
Career planning & Development
Performance Appraisal
Appropriate reward system

Potential Appraisal
Counseling
HR Information System (HRIS)
Grievance Handling

Management Development
Technical Development
Supervisory Development
Organization Development

Training & Education
Succession Planning
Employee welfare
Feedback
1.3.2 History of HRD:

The HRD concept was introduced by Len Nadler. First time in the world US in the year 1969 through THE AMERICAN SOCIETY OF TRAINING AND DEVELOPMENT since last ½, it has been more and more importance by the various business houses in India. Professor Len Nadler, defines HRD as organizational learning experience within a given period of time with the objective of producing possibility of performance step at present.

The economy of India is under knowing several grasping changes in business and industries and India are tried to develop about context to all over and cooperation among the various institution, business house. Government and other connected business word looking to this objective of business society of India. They understood leads, importance and usefulness and benefits of HRD practices in the business. In this context thousands of business unit have right to implement scientific & project HRD policy & practices in the respective organizations in the time.

This type of on going informal though very challenges of Indian organization and their human work place to build up the competitiveness, quality, productivity and profitability.

These types of changes naturally demand some strengthen force to be taken by organization for implementing this practice in right way. Employees should be developed thru their skills effectiveness, efficiency, loyalty and team spirit, individual and group efficiency. This all steps naturally will help implementing the HRD practices in right stage and right way.

The HRD concept should be such systems which maintains and involved and developed the people working in organization. This is to be implement and
accept in organization thru the help of various supervisory staff and lower level employees working within the organization.

The term HRD as became very popular in India since last two decades and particularly known as a separate department can be union level government. Known as ministry of HRD looking to the business sciences hundred of organization have implement and created new HRD department to give the more and more working employee to the organization.

In the department of HRD manager officer, HRD executives are taking care of in HRD functions of HRD department of respective organizations.

Looking to the history of HRD implementation, we can say that L & T LTD is the first companies who have introduce this concept in 1975 among all the private sector company in India within an objective of facilitating growth of employees as pay scaling employees.

In the public sector BHEL was the first company introduce in 1980 of course after that many companies working in India, either in public sector or private sector has adopted HRD concepts in the 9th sense when they feel that this is the function which really work to implement for getting more and more effectiveness of whole organizations.

At the initial stage many of them where under impression that this is only nothing but braining and development of the personal department. Some of the companies have change they’re braining and development department as a HRD department. Some of them have opened the department as a HRD department and some of the companies; have just renamed their personal department to the HRD department.
**Figure 1.3**

**INTEGRATED HRD SYSTEM**

<table>
<thead>
<tr>
<th>No</th>
<th>Development Dimension</th>
<th>HRD Subsystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Individual Training</td>
<td>Career Planning, Potential appraisal &amp; Development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback &amp; Performance Coaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rewards</td>
</tr>
<tr>
<td>2</td>
<td>Individual in Present Role Performance appraisal</td>
<td>Training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback &amp; Performance Coaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reward</td>
</tr>
<tr>
<td>3</td>
<td>Individual in future roles Potential appraisal &amp; Development</td>
<td>Training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance appraisal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback &amp; Performance Coaching</td>
</tr>
<tr>
<td>4</td>
<td>Dyadic Relationship Feedback &amp; Performance Coaching</td>
<td>Potential appraisal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
</tr>
<tr>
<td>5</td>
<td>Teams &amp; Teamwork Organization Development</td>
<td>Training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Team reward</td>
</tr>
<tr>
<td>6</td>
<td>Collaboration among different unit Organization Development</td>
<td>Training</td>
</tr>
<tr>
<td>7</td>
<td>Self renewing capabilities &amp; health of the organization Potential appraisal</td>
<td>Organization Development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training</td>
</tr>
</tbody>
</table>
1.4 Power sector in India

India's Power Sector Outlook

The Power & Energy Infrastructure sector in India is poised for a major take-off. The APDRP (Accelerated Power Development & Reforms Programme 2002 - 2012) has seen an addition of around 22,000 MW during last five years. And during the next five years, a capacity addition of over 78,000 MW has to be setup by 2012. (A commitment of 15,600 MW capacity, addition per annum).

The Market Potential to sustain the GDP Growth rate of India @ 8% plus per annum needs the power sector to grow at 1.8 - 2 times the GDP rate of growth as espoused by economists, planners and industry experts. This would mean a capacity addition of 18,000 - 20,000 MW to achieve this ambitious plan of moving India to a Developed Economy status, as an Economic Global Powerhouse. The Target Mission: ‘POWER for All by 2012’ would mean achieving the target of 1000 KwHr (Units) of per capita consumption of electricity by this period.

- To achieve this goal, following milestones are critical:
  - Attract US $ 250 Billion Investment into the sector. (FDI & Domestic Investment Combined)
  - Adequate Capacity Growth to Sustain GDP Growth at 8% plus.
  - Reliable & Quality Power On 24 x 7 basis, at least in Urban & Industrialized areas.
  - 100% Rural Electrification with Adequate & Qualitative Power for irrigation purpose.
  - Urgent need to develop the alternatives, both in the Fuel & Technology terms.
Introduction

- Focus on implementation (Outcomes are more important than Outlays) - as espoused by the Indian Prime Minister, Dr. Manmohan Singh.

1.4.1 Power Sector at a Glance "ALL INDIA"

Total Installed Capacity As on March 31, 2008:

Table 1.2(Sector Wise Installed Capacity)

<table>
<thead>
<tr>
<th>Sector</th>
<th>MW</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Sector</td>
<td>74,689.36</td>
<td>52.5</td>
</tr>
<tr>
<td>Central Sector</td>
<td>48,360.99</td>
<td>34.0</td>
</tr>
<tr>
<td>Private Sector</td>
<td>20010.66</td>
<td>13.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,43,061.01</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.3(Fuel Wise Installed Capacity)

<table>
<thead>
<tr>
<th>Fuel</th>
<th>MW</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Thermal</strong></td>
<td><strong>91,906.84</strong></td>
<td>64.6</td>
</tr>
<tr>
<td>Coal</td>
<td>76,048.88</td>
<td>53.3</td>
</tr>
<tr>
<td>Gas</td>
<td>14,656.21</td>
<td>10.5</td>
</tr>
<tr>
<td>Oil</td>
<td>1,201.75</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Hydro (Renewable)</strong></td>
<td>35,908.76</td>
<td>24.7</td>
</tr>
<tr>
<td><strong>Nuclear</strong></td>
<td>4,120.00</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>RES</strong> (MNRE)</td>
<td>11125.41</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,43,061.01</strong></td>
<td></td>
</tr>
</tbody>
</table>
Renewable Energy Sources (RES) include SHP, BG, U&I and Wind Energy.

**Abbreviation:** ---

- SHP= Small Hydro Project
- BG= Biomas Gasfier
- BP= Biomass Power
- U & I=Urban & Industrial Water Power
- RES=Renewable Sources.

**Note:-**

- The SHP capacity of 1168 MW which was covered under the conventional Hydro capacity has been transferred to RES 60.51 MW of captive capacity has been deducted from total SHP capacity under RES. Similarly wind capacity of 177.677 MW covered under captive has also been deducted from wind power capacity under RES.
- The Shares of Sipat TPS(NTPC) are proposed shares, still to be approved.
- (***) Based on data as on 31.12.2007 as furnished by MNRE.
- Figures at second place of decimal may not tally due to rounding off by computer

#Following units of Eastern / North Eastern were retired / derated w.e.f. 20.02.2008;

- Kathalguri & Galeki GT (21 MW) in Assam declared retired.
- Bongaigaon TPS (240 MW) in Bihar declared retired.
- Karbigahiya TPS (13.5 MW) in Bihar declared retired.
- Namrup TPS in Assam derated from 111.5 MW to 97 MW.
1.4.2 Power Sector Reforms in India

Power sector is witnessing a critical phase. State Electricity Boards (SEBs) are responsible for providing electricity to the people. Most of the SEB share cash strapped. They are not even able to earn a minimum Rate of Return (RoR) of 3% on their net fixed assets in service after providing for depreciation and interest charges in accordance with Section 59 of the Electricity (Supply) Act, 1948. The power sector in the country has accumulated a huge deficit, due to Central Power Generating Companies because of the deteriorating financial performance.

**Table 1.4**

**STATUS OF REFORMS IN STATES**

<table>
<thead>
<tr>
<th>State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>· SERC constituted, functional. · Tariff orders issued.</td>
</tr>
<tr>
<td></td>
<td>· Reform Law enacted. · SEB unbundled.</td>
</tr>
<tr>
<td></td>
<td>· Distribution privatization strategy being finalized.</td>
</tr>
<tr>
<td></td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td></td>
<td>· Anti-theft law passed.</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td>Assam</td>
<td>· SERC constituted, functional.</td>
</tr>
<tr>
<td></td>
<td>· Tariff Order issued.</td>
</tr>
<tr>
<td></td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td>Bihar</td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td></td>
<td>· SERC constituted.</td>
</tr>
<tr>
<td></td>
<td>· Anti-theft law passed.</td>
</tr>
<tr>
<td>State</td>
<td>Events</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td></td>
<td>· SERC constituted.</td>
</tr>
<tr>
<td>Delhi</td>
<td>· SERC constituted, functional.</td>
</tr>
<tr>
<td></td>
<td>· Tariff order issued.</td>
</tr>
<tr>
<td></td>
<td>· Reform Law enacted. DVB unbundled.</td>
</tr>
<tr>
<td></td>
<td>· Distribution privatized.</td>
</tr>
<tr>
<td>Gujarat</td>
<td>· SERC constituted, functional, tariff order issued.</td>
</tr>
<tr>
<td></td>
<td>· Reform law enacted.</td>
</tr>
<tr>
<td></td>
<td>· Anti-theft law enacted</td>
</tr>
<tr>
<td></td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td>Goa</td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td></td>
<td>· SERC constituted.</td>
</tr>
<tr>
<td>Haryana</td>
<td>· SERC constituted, functional.</td>
</tr>
<tr>
<td></td>
<td>· Tariff Orders issued.</td>
</tr>
<tr>
<td></td>
<td>· Reform Law enacted, SEB unbundled.</td>
</tr>
<tr>
<td></td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>· SERC constituted functional.</td>
</tr>
<tr>
<td></td>
<td>· Tariff order issued.</td>
</tr>
<tr>
<td></td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>· Reform Bill passed by State Assembly.</td>
</tr>
<tr>
<td></td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>· MOU signed with Government of India.</td>
</tr>
<tr>
<td></td>
<td>· SERC notified.</td>
</tr>
<tr>
<td></td>
<td>· Tariff Order issued.</td>
</tr>
<tr>
<td>State</td>
<td>Events</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Karnataka  | · SERC constituted, functional.  
                 · Tariff Order issued.  
                 · Reform Law enacted, SEB unbundled.  
                 · MOU signed with Government of India.  
                 · Anti-theft law passed. |
| Kerala     | · SERC constituted.  
                 · MOU signed with Government of India.  
                 · Anti-theft law passed.  
                 · Tariff Order issued. |
| Madhya Pradesh | · SERC constituted, functional.  
                         · Tariff order issued.  
                         · Reform Law enacted.  
                         · MOU signed with Government of India.  
                         · SEB Unbundled.  
                         · Anti-theft law passed. |
| Maharashtra | · SERC constituted, functional.  
                         · Tariff order issued.  
                         · MOU signed with Government of India.  
                         · Anti-theft law passed. |
| Orissa     | · SERC functional.  
                 · Tariff orders issued.  
                 · Reform Law enacted.  
                 · SEB unbundled.  
                 · Distribution Privatized.  
                 · MOU signed with Government of India. |
<table>
<thead>
<tr>
<th>State</th>
<th>Key Actions</th>
</tr>
</thead>
</table>
| Punjab        | · SERC constituted, functional.  
· Tariff Order issued.  
· MOU signed with Government of India. |
| Rajasthan     | · SERC constituted, functional.  
· Tariff order issued.  
· Reform Law enacted.  
· SEB unbundled.  
· MOU signed with Government of India. |
| Tamil Nadu    | · SERC constituted, functional.  
· Tariff Order issued.  
· MOU signed with Government of India. |
| Uttar Pradesh | · SERC constituted, functional.  
· Tariff order issued.  
· Reform Law enacted.  
· SEB unbundled.  
· MOU signed with Government of India.  
· Anti-theft law passed. |
| Uttaranchal   | · MOU signed with Government of India.  
· SERC constituted.  
· SEB unbundled.  
· Tariff order issued |
| West Bengal   | · SERC constituted.  
· Tariff order issued  
· MOU signed with Government of India.  
· Anti-theft law passed. |
Introduction

<table>
<thead>
<tr>
<th>State</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagaland</td>
<td>North Eastern States have shown willingness to constitute Joint Electricity Regulatory Commission (JERC).</td>
</tr>
<tr>
<td>Meghalaya</td>
<td></td>
</tr>
<tr>
<td>Mizoram</td>
<td>Mizoram and Manipur are in the process of constituting JERC.</td>
</tr>
<tr>
<td>Manipur</td>
<td></td>
</tr>
<tr>
<td>Tripura</td>
<td>Tripura has notified the constitution of SERC.</td>
</tr>
<tr>
<td>Sikkim</td>
<td>Nagaland, Meghalaya, Mizoram, Tripura and Sikkim have signed MOU with Government of India.</td>
</tr>
</tbody>
</table>

1.5 Power sector in Gujarat

The power sector of India facing too many ups & downs, specially the power sector of Gujarat facing lots of revolutionary changes. The government of Gujarat starts “JYOTIGRAM YOJANA” aims to provide better standard of living to village people and development of industries. There is vast difference between demand and supply of electricity in Gujarat. To over come those problems the govt. decides to develop the same rapidly.

JYOTI GRAM YOJANA is a scheme announced by Government of Gujarat to provide continuous three phase power supply to the rural area for upliftment of rural population. The quality of villagers’ life had affected due to non availability of power supply in rural area. This in turn had affected the villages in development of Education, Industries, Business, and Health Services etc. By providing 24 Hrs. power to rural area all round development of State can be achieved. JGY scheme envisaged making the life of millions of village people happier, progressive and prosperous by
ensuring quality power supply. Disparities in availability of power supply between rural and city area though tariff is same will be eliminated.

1.5.1 Achievement and progress
In the year 2003-2004 2516 villages were covered under scheme and an amount of 72.18 crores was provided. During the year 2004-2005 budget provision of Rs. 257.15 crores is made and till march-2005 6203 Nos. of villages are covered. During the current year 2006-07, up to October -2006, there were 17782 Nos. of villages declared as Jyotigram villages.

1.5.2 Direction of power sector reforms in Gujarat
The Energy and Petrochemicals Dept has also taken certain initiatives to provide comfort to the industries. It is worthwhile to recapitulate the details of the steps taken before discussing the policy initiatives.

- During the 9th Plan, 2108 MW power generation capacity was added in the system and the installed capacity has now reached to 8576 MW at the end of 2002-03. During the 10th Five Year Plan, the state has planned to add more than 4,000 MW generation capacity.

- Special efforts were also made to increase the Plant Load Factor (PLF) of the existing power station by way of taking up measures on renovation and modernization as well as following good maintenance practices for increase in generation and efficiency. GEB attained PLF 69.69% at the end of the year 2002-03 which is the highest ever.

- The State Captive Power Policy, 1998 got tremendous response. At present, the sanctioned captive power capacity is more than 3,500 MW, of which approx. 2200-2500 MW of power is currently generated. GEB avails the surplus power as and when required and the units are also permitted to supply power to their sister concerns.
In Power Sector Reforms, the state has already set up Gujarat Electricity Regulatory Commission to decide the tariff of electricity. Moreover, the Gujarat Electricity Industry (Reorganization & Regulation) Act, 2003 has also been enacted to provide smoother and speedier reorganization and rationalization of electricity industry. It has also been decided to reorganize activities of GEB into a Generation Company, a Transmission Company and four Distribution Companies with professional managements. It has also been provided to constitute separate distribution companies for major cities of the state. Various provisions in the Electricity Act 2003 on free generation, open access and third party sale of electricity, regulations by regulatory authority would also further boost the power sector in the state in the near future.

1.6 RATIONAL OF STUDY

1.6.1 Importance and Significance
Power is the most widely used type of energy in the world. We use it for work and for play, in the home and at work, in the past it mainly provided us with light and heat. Over the years the number of electrically powered items has hugely increased. We now use it almost continually every day. We use it so much that we take it for granted. However, when there is a power cut we begin to realize just how much we need it and how dependent we have become on it. Power is the engine of growth of any developing economy. Consumption of electrical energy is a universally accepted indicator of progress in the agricultural, industrial and commercial sectors, as also of the well being of the people of the State. No major economic activity can be
sustained without adequate and reliable supply of power. It plays a critical role in employment generation, regional development and poverty eradication.

Energy resources can be described as renewable and non-renewable. Renewable energy sources are those which are continually being replaced such as energy from the sun (solar) and wind. If an energy resource is being used faster than it can be replaced (for example, coal takes millions of years to form) then it will eventually run out. This is called a non-renewable energy source.

### Renewable Energy
- Solar Energy
- Wind Energy
- Hydroelectric Energy
- Tidal/Wave Energy
- Biomass Energy
- Geothermal Energy

### Non-Renewable Energy
- Coal
- Petroleum
- Gas
- Nuclear Energy

To supply electricity in Gujarat the companies like G.E.B. which is now known as GUVNL, Torrent Power etc. plays a very vital role. As competition beyond imagination has changed the world upside down the market which was once a producer centered has changed to customer oriented. Each and every penny is invested after hundred time of thinking. The only worry which shrunk the mind is a head of competition through better investment and better return. At last the crushy thinking came to an end when every one found a source where investment done at once. Yield return for life time i.e. human resources. People began to develop the core a competence through many a things and this research is related to those magical keys of development.
1.6.2 Objectives Of The Study

- To observe the position and prospects of Power sector of Gujarat.
- To study strategy, policy and practices in Human Resource management and Human Resource Development of the Power Sector in Gujarat.
- To evaluate the effectiveness of the division of GEB in 7 companies.
- To analyze the employee benefits and Human Resource Schemes of selected units in power sector.
- To assess Human Resource experience on company’s practices of power sector in Gujarat.
- To find the changes in attitude of employees and management.
- To evaluate the effectiveness of Power Sector to provide better services to the customers.
- To compare the HR strategy, policy and practices between public and private sector units of Gujarat.

1.6.3 Hypotheses

1. The scenario of Human Resource Development strategy and practices in general in private sector units are better than that of in public sector units.
2. There is less motivation is given to the employees in public sector units than it is in private sector units.
3. In compare to public sector units the training & development practices are applied more significantly and scientifically in private sector.
4. The impact of performance appraisal system is more flourishing in private sector units in compare to public sector units.
5. The practice of counseling & feedback is more frequent and effective in private sector units in compare to public sector units.
1.6.4 Research Methodology

1.6.4.1 Collection of Data
For the present study concerning to the H.R. strategy, policies and practices in power sector of Gujarat the researcher has collected the information through the primary and secondary data.

In order to carry out the study Questionnaire was used as the tool of collecting data regarding general information, management perspective and employee’s perspective. Researcher was collected data by using interview schedule, interaction and observation method. The data were also being collected from the literatures and magazines available.

From the various selected units of the power sector of Gujarat sample was selected through the proper statistical techniques for the universe of applicable sample and sample size. There were 300 sample respondents from among the population. The Questionnaire was used to collect the data regarding the H.R. strategy, policies and practices from the management and employee. It was divided in five different sections namely Section 1: The scenario of HRD in general, Section 2: Motivation, Section 3: Training & Development, Section 4: Performance Appraisal & Job Evaluation and Section 5: Counseling & Feedback.

The questionnaires were filled up by researcher personally contacting the respondents.

1.6.4.2 Analysis and application of Data
Researcher made an attempt to present data in a very simple and lucid form. For this appropriate statistical tools were utilized. The interpretation was done by using those effective statistical tools. After the completion of data
collection from the respondents the data and information received through the questionnaires and visits were analyzed, processed and assimilated. Analyzed data were prepared in the form of charts and tables in logical and scientific system.

The researcher has used various statistical tools like mean ($\bar{X}$), standard deviation ($SD$) and $t$ - test for the analysis of the data scientifically and systematically.

1.6.5 LIMITATIONS OF THE STUDY

Due to the limitation of means and time, the amount of sample chosen is restricted and the sample size for each organization is small which when increased may also increased the chances of error.

There are various HRD mechanisms known which are not taken into consideration. The exclusion of these mechanisms in the study acts as one of the basic limitation of the study.

The results of the study are time bound and the HRD practices both at policy and implementation level may change in the course of time, as the HRD concept is evolving at a quick speed with a growing number of academic institutions and consultants working in the field.
1.6.6 Introduction of selected Power sector units of Gujarat

Public Sector

- GEB

Gujarat Electricity Board (GEB) was established along with the formation of Gujarat State in the year 1960 under Section 5 of the Electricity (Supply) Act-1948.

Starting with a generation capacity of 315 MW and a consumer base of 1.40 million consumers, GEB today is the lifeline for over 7.3 million consumers across the State of Gujarat.

During 1970s and 80s, the major thrust was on the supply of electricity in the rural areas. It was largely due to GEB’s unwavering focus on rural electrification that Gujarat became the first state to achieve the landmark of ‘100% Electrification of Villages’. As per the 1991 Census, 17,940 villages out of a total of 18,028 have been electrified – which is close to 100%.

GEB continues to focus on its key objectives of generation, transmission and equitable distribution of power to achieve an all-round economic growth of the State. Till date it has installed 1,72,662 (as on 31-03-2003) transformer centers and in the past four decades its per capita consumption has increased from 48 KWH (In 1960) to 932 KWH (as on 31-03-2003).

For the development of rural areas in the state, GEB’s holistic Rural Electrification Programme covers electrification of new villages, conversion of villages electrified through Solar system to conventional method and supplying power to pump sets, Petaparas (Hamlets) and Harijan Bastis by availing finance mainly from REC., New Delhi and the State Government. GEB stands committed to build Gujarat as a power hub of the nation. With
equal emphasis on serving both the urban as well as the rural populace, it ensures a harmonious and a balanced growth of the economy by achieving its twin goals of social upliftment of the people as well as economic regeneration in the State.

As a part of Power Reform Process, the Electricity Act, 2003, was passed by the Central Government and Gujarat Electricity Industry (Re-organization & Regulation) Act, 2003, was passed by the Government of Gujarat to restructure the Electricity Industry with an aim to improve efficiency in management and delivery of services to consumers. Under the provisions of the said Acts Govt. of Gujarat framed the Gujarat Electricity Industry Re-organization & Comprehensive Transfer Scheme, 2003, (the Transfer Scheme) vide Government Notification dated 24-10-2003 for transfer of assets/liabilities etc. of erstwhile GEB to the successor entities. Accordingly erstwhile Gujarat Electricity Board (GEB) was reorganized effective from 1st April, 2005 in to Seven Companies with functional responsibilities of Trading, Generation, Transmission and Distribution etc.

The Companies incorporated is as under:

1. Gujarat Urja Vikas Nigam Ltd. (GUVNL) - Holding Company
2. Gujarat State Electricity Corp. Ltd.(GSECL) - Generation
3. Gujarat Energy Transmission Corp. Ltd.(GETCO) - Transmission
4. Uttar Gujarat Vij Company Ltd. (UGVCL) - Distribution
5. Dakshin Gujarat Vij Company Ltd. (DGVCL) - Distribution
6. Madhya Gujarat Vij Company Ltd. (MGVCL) - Distribution
7. Paschim Gujarat Vij Company Ltd. (PGVCL) - Distribution
Gujarat Urja Vikas Nigam Ltd. (GUVNL)

The Gujarat Urja Vikas Nigam Limited was incorporated as a Govt. of Gujarat Company. Since 100% Shares in the other six companies are held by GUVNL w.e.f. 1st April, 2005 they have become Subsidiary Companies of GUVNL as per the provisions of the Companies Act, 1956.

The GUVNL is engaged in the business of bulk purchase and sale of electricity, Supervision, Co-ordination and facilitation of the activities of its six Subsidiary Companies. The GSECL is engaged in the business of Generation of Electricity. The GETCO is engaged in the business of Transmission of Electricity. The UGVCL, DGVCL, MGVCL and PGVCL are engaged in the business of Distribution of Electricity in the Northern, Southern, Central and Western areas of Gujarat respectively.

Gujarat State Electricity Corp. Ltd. (GSECL)

The Company was promoted by erstwhile Gujarat Electricity Board (GEB) as it’s wholly owned subsidiary in the context of liberalization and as a part of efforts towards restructuring of the Power Sector.

GSECL has initiated its activities in the field of Generation of Power. The Government of Gujarat (GoG) has also given to the GSECL the status of Independent Power Producer (IPP) with approval to undertake new power projects. The Company commenced it’s commercial operation in the year 1998. However, the operations of GSECL were limited to Power Stations...
units Gandhinagar, Wanakbori, Utran GBPS & Dhuvaran CCPP till the complete unbundling of erstwhile GEB was undertaken, i.e. up to 31st March 2005.

Gujarat State Electricity Corporation Limited (GSECL) was incorporated in August 1993 and is registered under the Companies Act, 1956 with the objectives to initiate a process of restructuring of Power Sector and to mobilize resources from the market for adding to the generating capacity of the State and improving the quality and cost of existing generation. The Company was promoted by erstwhile Gujarat Electricity Board (GEB) as it’s wholly owned subsidiary in the context of liberalization and as a part of efforts towards restructuring of the Power Sector. The Memorandum and Articles of Association of GSECL envisage a wide spectrum of activities to improve the electricity infrastructure of Gujarat. GSECL has initiated its activities in the field of Generation of Power. The Government of Gujarat (GoG) has also given to the GSECL the status of Independent Power Producer (IPP) with approval to undertake new power projects. The Company commenced it’s commercial operation in the year 1998. However, the operations of GSECL were limited to Power Stations units Gandhinagar #5, Wanakbori #7, Utran GBPS & Dhuvaran CCPP till the complete unbundling of erstwhile GEB was undertaken, i.e. up to 31st March 2005.

Gujarat Energy Transmission Corp. Ltd. (GETCO)

Gujarat Energy Transmission Corporation Limited (GETCO) was set up in May 1999 and is registered under the Companies Act, 1956. The Company was promoted by erstwhile Gujarat
Electricity Board (GEB) as its wholly owned subsidiary in the context of liberalization and as a part of efforts towards restructuring of the Power Sector.

As a part of the ongoing reforms process in the state power sector, in the year 2003, the Government of Gujarat under the provisions of Gujarat Electricity Industry (Re-Organization & Regulation) Act, 2003 framed the Gujarat Electricity Comprehensive Transfer Scheme, 2003 (the Transfer Scheme) vide Government Notification No: GHU-2003-58-GEB-3537–K dated the 24th October, 2003. The Government of Gujarat issued Notification No. GHU-2004–99-GEB-1104–7318-K dated the 31st December 2004, notifying the Provisional Opening Balance Sheet as on 31st March 2004 of the Six Transferee Companies containing the value of assets and liabilities transferred from erstwhile Gujarat Electricity Board (GEB) to the Transferee Companies. Assets of the Board were dis-aggregated into six companies – One each in Generation and Transmission and Four in Distribution. As a part of the above exercise, all the generation plants of GEB have been transferred to GSECL, which was a company already, existing since 1993. Subsequently, the Government of Gujarat vide Notification dated 31st March, 2005 notified that pursuant to the Transfer Scheme, the effective date for the transfer of assets, liabilities, proceedings and personnel be further extended to 1st April, 2005. A holding company, Gujarat Urja Vikas Nigam Limited (GUVNL), has been also been formed. Apart from co-ordination functions, GUVNL is also handling Trading and Bulk Supply functions.

**Uttar Gujarat Vij Company Ltd. (UGVCL)**

As a part of efforts towards restructuring of Power Sector, a new Company known as **Uttar Gujarat Vij Company Ltd.** was incorporated on 15th

The Main Object to be pursued in terms of the Memorandum and Articles of Association of the Company are as under:

To undertake the electricity sub-transmission distribution and retail supply in the State of Gujarat or outside the State and for this purpose to plan, acquire, establish, construct, erect, lay, operate, run, manage, maintain, enlarge, alter, renovate, modernize, work and use a power system network in all its aspects and also to carry on the business of purchasing, selling, importing, exporting, wheeling, trading of electrical energy, including formulation of tariff, billing and collection thereof and then to study, investigate, collect information and data, review operations, plan, research, design and prepare project reports, diagnose operational difficulties and weaknesses and advise on the remedial measures to improve and modernize existing sub-transmission and supply lines and sub-stations.

The Gujarat Electricity Industry (Re-Organization & Regulation) Act 2003 has paved the way for comprehensive reform and restructuring of the State Electricity Board with an aim to restructure the Electricity Industry in the manner that will ensure the long term viability and sustainability of the Power Sector. As a part of Reform Process, it has been envisaged to disaggregate GEB, the Promoting Body into separate entities with functional responsibilities for generation, transmission and distribution respectively with complete autonomous for operations.

The Electricity Act 2003 has introduced competition by way of Open Access both in the Transmission as well as Distribution area. The said Act also provides for reorganization of the Electricity Boards through appropriate
Transfer Schemes being formulated by the State Governments. The Government of Gujarat has already reorganized the GEB functionally into a Generation Company, a Transmission Company and 4 Distribution Companies. Thereby “UTTAR GUJARAT VIJ COMPANY LIMITED” became functional since 1st April, 2005.

**Dakshin Gujarat Vij Company Ltd. (DGVCL)**

Dakshin Gujarat Vij Company Limited is providing electricity supply to the residential, Industrials, Agricultural and others consumers of Valsad, Navsari, Surat, Bharuch and Narmada district.

**Madhya Gujarat Vij Company Ltd. (MGVCL)**

The company is responsible for reliable and affordable power distribution to residential areas, commercial complexes, streetlights, water works, agriculture, traction as well as industries. Major functional areas of MGVCL are as under.

- Operation and Maintenance of HT/LT lines, Distribution Transformer centers (DTC), Protective equipments etc.
- Errection and installation of new HT/LT lines, DTC, Service connections, protective equipments etc.
- Design, development and implementation of system improvement schemes.
- Identification and implementation of Govt. / Non-Govt. sponsored schemes.
- Rural Electrification activities viz. Jyoti Gram Yojana(JGY), Rajiv Gandhi Gramin Vidyutikaran Yojana(RGGGY), Tribal Area Sub-
Introduction

Plan(TASP), Tatkal, SCP, Well Electrification, Border Area Development Plan, Pradhan Mantri Gramodaya Yojana etc.

- Demand side load management.
- Reduction in losses, Revenue enhancement, Reliable and quality Power Supply.

The Company distributes electricity in 5 Districts 49 Talukas, 4,426 Villages, Area Serviced : 23,854 sq. Kmtrs., Population Serviced : 11.18 million, No. of Consumers : 1.81 million. The company is responsible for reliable and affordable power distribution to residential areas, commercial complexes, streetlights, water works, agriculture, traction as well as industries.

**Paschim Gujarat Vij Company Ltd. (PGVCL)**

Company is incorporated on 15th September, 2003 with certificate of business w.e.f. 15th October, 2003. Commercial operation of company is started on 1st April 2005. PGVCL is feeding electricity in 8 district of Gujarat namely Rajkot, Jamnagar, Junagadh, Porbandar, Bhuj, Bhavnagar, Surendranagar and Amreli covering total 83 Talukas. For better administration and consumers' conveniences, administrative area of company is devided in to total 9 and out of which 6 circles are under direct control of corporate office and 3 circles are under control of Bhavnagar Zonal office. You may view Company Office Map for details.

- Total area covered by company = 99771 sq. km. approx.
- Population of area covered by company = 15 million approx.
- Total consumers of company = 3279090 ( As on Nov-05 )
- Nos of Divisions = 40
- Nos of sub divisions = 236
- Total employees = 10406 Total assessment of PGVCL for the year 2004-05 = 2570 crores
Introduction

Private Sector

Torrent Power

Torrent Power is one of the leading brands in the Indian power sector, promoted by the Rs. 45 billion Torrent Group – a group committed to its mission of transforming life by serving two of the most critical needs - Healthcare and Power. Torrent Pharmaceuticals Ltd., the flagship company of the Torrent Group, is a major player in the Indian pharmaceuticals industry with a vision of becoming a global entity in the arena.

With an all-round experience in generation, transmission and distribution of power, and a proven track record of implementing large power projects, Torrent Power is the most experienced private sector player in Gujarat.

Torrent Power foresaw the prospects in the power sector much before the liberalization, when it took-over an ailing power cable company in 1989 (now known as Torrent Cables Limited) and successfully turned it around.

The high points of Torrent’s foray into power however were the acquisitions of two of the India’s oldest utilities – The Surat Electricity Company Ltd and The Ahmedabad Electricity Company Ltd. Torrent turned them into first rate power utilities comparable with the best, in terms of operational efficiencies and reliability of power supply.

Torrent has a generation capacity of 1630 MW (500 MW operational, 1130 MW under implementation) and distributes over 10 billion units of power to annually Ahmedabad, Gandhinagar and Surat – the industrial and commercial hubs of Gujarat.

And for over 1.9 million customers spread over an area of 408 Sq Kms in these cities, Torrent Power has evolved into a lifeline that continues to empower their lives-Uninterrupted.
Torrent Power is setting up a 1130 MW SUGEN CCPP near Surat in Gujarat. Torrent’s answer to the growing demand for power, this project would be one of the first Greenfield mega power projects to be setup with LNG as the fuel. LNG has been acknowledged as the most eco-friendly fuel and also offers the benefit of lower generation cost per unit. Distribution Franchise business is one area which Torrent Power has been aggressively pursuing as part of its expansion plans. Torrent Power created history by entering into the country’s first distribution franchisee agreement with Maharashtra State Electricity Distribution Company Limited for Bhiwandi Circle in December 2006.

Table 1.5
Core Functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Location</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>Sabarmati, Ahmedabad</td>
<td>400 MW</td>
</tr>
<tr>
<td></td>
<td>(Coal Based Thermal Power Station)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vatwa, Ahmedabad</td>
<td>100 MW</td>
</tr>
<tr>
<td></td>
<td>(Gas Based CCPP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Akhakhol, Surat</td>
<td>1100 MW</td>
</tr>
<tr>
<td></td>
<td>(Gas Based CCPP)</td>
<td></td>
</tr>
</tbody>
</table>
## Introduction

### Table 1.6

<table>
<thead>
<tr>
<th>Function</th>
<th>Location</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>Ahmedabad, Gandhinagar</td>
<td>EHV Network of 286 Km, HT cable Network of 2952 Km, 13 Nos. of EHV Substations, 82 Nos. of Power Transformers</td>
</tr>
<tr>
<td>Distribution</td>
<td>Ahmedabad, Gandhinagar</td>
<td>Customer Base of 1.3 mn</td>
</tr>
</tbody>
</table>

### Service Functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commerce</td>
<td>Ahmedabad, Gandhinagar, Surat, Bhiwandi</td>
</tr>
<tr>
<td>Customer Services</td>
<td>Ahmedabad, Gandhinagar, Surat, Bhiwandi</td>
</tr>
<tr>
<td>Finance &amp; Accounts</td>
<td>Ahmedabad, Akhakhol, Surat, Bhiwandi</td>
</tr>
<tr>
<td>High Value Customer Cell</td>
<td>Ahmedabad, Surat, Bhiwandi</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Ahmedabad, Akhakhol, Surat, Bhiwandi</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Ahmedabad, Akhakhol, Surat, Bhiwandi</td>
</tr>
<tr>
<td>Legal &amp; Secretarial</td>
<td>Ahmedabad, Gandhinagar, Surat, Bhiwandi</td>
</tr>
<tr>
<td>Revenue Protection &amp; Recovery cell</td>
<td>Ahmedabad, Surat, Bhiwandi</td>
</tr>
</tbody>
</table>
Introduction

**Torrent Power SEC Limited**

Torrent Power SEC Limited supplies 2.8 billion units of power to around 4.77 lakh customers in the city of Surat in Gujarat. A power utility distributing 2.8 billion units of power to about 4.77 lakh customers in 52 sq km of its license area in the city of Surat.

During the last two years, the company has laid special emphasis on the reduction of Transmission and Distribution (T & D) losses which is an anathema for the Indian power sector. The efforts of the company have borne fruits with the T&D loss of the company (11.11% in 2004-05) being one of the lowest in the country.

**Torrent Power AEC Limited**

Torrent Power AEC Limited supplies 4.2 billion units of power to around 1.26 million customers in the cities of Ahmedabad and Gandhinagar in Gujarat.

An integrated power utility with a generating capacity of 500 MW, Torrent Power AEC Limited supplies 4.2 billion units of power to around 1.26 million customers. The company’s license area of 356 sq kms comprises the cities of Ahmedabad, the commercial and industrial capital of Gujarat and Gandhinagar, the State capital.

During the last two years, the company has laid special emphasis on the reduction of Transmission and Distribution (T&D) losses which is an anathema for the Indian power sector. The efforts of the company have
borne fruits with the T&D Loss of the company being one of the lowest in the country (12.63% in 2004-05).

**Torrent Power Generation Ltd**

Torrent Power Generation Limited brings to the fore, Torrent Group's ambitious plans in the power sector.

Torrent Power’s latest initiative is a special purpose vehicle – **Torrent Power Generation Ltd.**, for the implementation of a mega power generation plant. This 1100 MW SUGEN Combined Cycle Power Plant is Torrent’s answer to the growing demand for power. This project would be one of the first Greenfield mega power projects to be setup with Natural Gas as the fuel. Natural Gas has been acknowledged as the most eco-friendly fuel and also offers the benefit of lower generation cost per unit.

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