CHAPTER 8

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Inspite of various electricity acts, reform policies constitution of SERC/CERC, still the Indian Power sector needs lot of improvement to foster the desired GDP growth of the Nation.

Still per capita power consumption in India is much low compared to even many Developing countries.

Although government has initiated many initiatives for the expansion of the sector but still lot of unutilized capacity is available within the existing units i.e. indirectly we are loosing millions of units on this account. In this context the conditions of units available with state Electricity boards is in bad shape.

At the same time NTPC a central government power utility is performing efficiently in the same environmental situations.

Even NTPC has proved at four occasions i.e. Badapur, Unchahar, Talcher and Tanda respectively, that with the same machine and people of same units, they have turn around these power stations upto such an extent that they are appearing in Top performer list of power stations.
Quite often, it is brought out that substantial improvement in capacity utilisation (PLF) would necessarily require large capital investment for Renovation and Modernisation (R&M). While it may be true in a number of cases, it is also a fact that a large number of power stations can be operated at higher levels of availability and PLF without any significant capital investment for such R&M works. The following two cases can be briefly mentioned to make the point:

a. The Management of the Badarpur Thermal Power Plant was handed over to NTPC in 1978-79 when the performance of the station was about 30% PLF. The first stage of the power station consisting of 3 units of 100MW each had been commissioned during the period 1967 to 1970. After the take over of management several steps were taken, including short-term, intermediate-term and long-term programmes, to improve the working of the power station. In a period of three years without any significant capital investment for R&M, the PLF was improved to about 60%. Improvement to above 50% was bought out within two years and to about 45% in one year. Further improvement did need capital investment of short-term and long-term nature. With R&M phase – I, it was possible to further improve the PLF and by the year 1992-93 this power station came in line with other power station of NTPC generating at over 72% PLF.

b. The case of Unchahar Power Station is even more relevant to make the point that proper operation and management practices and right work culture will definitely led to higher capacity
utilisation even without capital investment. Unchahar Power Station - 2 x 210 MW (in up State) was taken over by NTPC in February, 1992. During year 1991 the PLF of this station was 12.85%. After commissioning of this power station (first unit in November, 1988 and 2nd Unit in March, 19989) both the units of this power station had never been operated together. Within 7 days of takeover both the unit were operated together. Within 100 days, the availability improved from 27% for the period March 1991 - February 1992 to over 58% and PLF for the same period from 18% to 48%.

In this power station on account of various steps to streamline R&M practices the PLF improved to over 60% within six month and over 70% in 12 months after the take over. The availability, PLF and specific oil consumption during 1992 and 1993 as compared to the pre-take over year of 1991 is given below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Availability (%)</th>
<th>PLF (1%)</th>
<th>Specific Oil Consumption Ml/KWH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>19.37</td>
<td>12.85</td>
<td>23.28</td>
</tr>
<tr>
<td>1992</td>
<td>59.39</td>
<td>43.91</td>
<td>10.29</td>
</tr>
<tr>
<td>1993</td>
<td>80.79</td>
<td>71.08</td>
<td>03.01</td>
</tr>
</tbody>
</table>
The following table indicating the PLFs of Tanda, Talcher and Unchahar plants before and after the take over clearly sungs the success saga and turnaround capability of NTPC.

**Turnaround Capability**

**Shown at Tanda, Talcher and Unchahar**

<table>
<thead>
<tr>
<th>Station</th>
<th>Taken over on</th>
<th>PLF (%) prior to Takeover</th>
<th>PLF During 2003-04</th>
<th>PLF During 2004-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanda</td>
<td>January 2000</td>
<td>14.90</td>
<td>75.32</td>
<td>86.07</td>
</tr>
<tr>
<td>Telcher</td>
<td>June 1995</td>
<td>18.70</td>
<td>67.78</td>
<td>79.33</td>
</tr>
<tr>
<td>Unchahar</td>
<td>February 1992</td>
<td>18.02</td>
<td>87.34</td>
<td>92.15</td>
</tr>
</tbody>
</table>

Although NTPC was formed by the government as Thermal Generator but NTPC has always taken lead role in entering new areas, if we look at 30 years history of NTPC we can find that NTPC has ventured into following areas.

- It entered into power generation by gas and combined cycle mode.
- It has entered into hydro mode also and planning to enter into power generation through nuclear mode.
- It has started its own distribution company and trading company.
- It has diversified in coal Mining also.
It we analyse the performance of NTPC as detailed in chapter 6, we can conclude that

Key success factors behind NTPC's performance are

(i) Its people
(ii) Its sound O&M and Managerial systems
(iii) Good Direction provided by their leaders.

![Diagram showing the relationship between People, Systems, and Direction]

We can compare the above three factors with human body where people are equivalent to Heart, operational and Managerial systems are hands and direction providers i.e. leaders are Head.

Just like in human body the perfect combination or coordination of heart, hands and head (mind) keeps the body in rhythm, in the same way combination and coordination of people, O&M and managerial
system and Directions provided by the leadership keeps the organisation in effective performing condition.

With more and more the overlapping of above three circles, the greater becoming the success story of the organisation and in real sense the overlapping region of these three circles is the "TQM" i.e., Total Quality Management.

And wherever such overlapping are taking place i.e., TQM is implemented with the above mentioned spirit there comes the
- Customer satisfaction
- Continuous improvement
- Growth potential
In practical meaning overlapping of people, systems and Directions in an organisation means that whenever any decision is taken with respect of one circle, then the decision should be taken in such a way that the components of other two circle should not be getting harmed.

For example, if a company (direction part) decides to bring automation (to make change in system) in the organisation then in such situation their decision should take care of people aspect also i.e. by bringing automation people should not loss their Jobs Management should redeploy them suitably in other Job after providing necessary training.

NTPC is following the same philosophy and due to this it has achieved all round success. In the 30 years history of NTPC, no body has been retrenched from the corporation inspite of lot of automation and sick nature of power sector. All polices and directives are made after mutual discussions at all level and policies are people friendly and utmost care is taken to develop and nurture the employees in NTPC culture.

HR strategies and activities are implemented and adopted around following 4 important pillars

- Commitment Development
- Culture Development
- Competence Development
- System Development

It can be seen from above pillars that utmost care is taken not only to develop employees but also to develop organisation.

Power sector is facing problems but effective implementation of HR and TQM initiatives by each utility will definitely contribute to the development of sector.