

## A study on liquidity and profitability position of national thermal power corporation limited New Delhi

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### Abstract

The power sector plays a crucial role in industrialization and urbanization of India and faces challenges in absorbing high cost of inputs. Regest electricity generation capacity and it is the 6th largest energy consumer accounting for 3.4 per cent of global energy consumption. Due to the fast-paced growth of the Indian economy, the country's energy demand has grown at an average of 3.6 per cent p.a. over the past 30 years. In India, power is generated by State utilities, Central utilities and Private players. Looking at the companies with a diversified portfolio of power, since the power sector is a heavy capital intensive industry, so the article attempt to know the financial performance with the objectives of the study are to envisage the liquidity and profitability position of National Thermal Power Corporation.

**Keywords:** power sector, generation, capitalisation, industrialisation, urbanization, liquidity, profitability

### Introduction

Power is an unavoidable requirement in the present era of mankind. Every act of work is directly or indirectly performed by power. India has always been a power-deficient country. The demand for power is huge in India and supply of power has not been able to meet its demand. Under the Government's "Power for all by 2012" plan it is estimated that there is a capacity addition of more than 1, 00,000 MW would be required. This shows that huge capacity additions are required at good efficiency rates, indicating that the opportunities available in this sector are huge. The Indian Power Industry is one of the largest and most important industries in India as it fulfils the energy requirements of various other industries. It is one of the most critical components of infrastructure that affects economic growth and the well-being of our nation. India has the world's 5th largest electricity generation capacity and it is the 6th largest energy consumer accounting for 3.4 per cent of global energy consumption. Due to the fast-paced growth of the Indian economy, the country's energy demand has grown at an average of 3.6 per cent p.a. over the past 30 years.

### Statement of Problem

Power Sector is a highly capital-intensive industry with long gestation periods, before the commencement of revenue generation. Since most of projects have a long time frame (4-5 years of construction period and operating period of over 25 years), there are some inherent risks which this sector faces like availability of Coal, dependence on Equipment Suppliers, aggregate Commercial and Technical Losses, shortage of skilled manpower for construction and commissioning of projects, contractual disputes between project authorities, contractors and their sub-vendors, delay in readiness of balance of plants by the executing agencies. Difficulties have been experienced by developers in land acquisition, rehabilitation, environmental and forest – related issues, inter-state issues, geological surprises (particularly for Hydro projects) and contractual issues. These issues continue to pose challenges to

maintain the pace of development of power projects. Besides all the above said major problems the most important factor is financial performance, due to the competitiveness in the industry after 2008 all the companies in the industry faces sever working capital problem which affects their profitability. This is due to increase in cost of raw material and other manufacturing expenses from this view point this article presents an empirical view of select power sector companies liquidity position and its relationship towards operating profit. Liquidity problem in the market owing to global meltdown makes it difficult or developers to raise equity. Crisil Research states "Our interactions with various lenders led us to conclude that in the current scenario equity has become a key issue as private projects are held up at the financial closure stage for the requirement of equity. Lenders find reassurance in the promoter's equity being brought in through cash flows or owners funds compared to the equity brought in through the foreign direct investment (FDI) route

### Objectives of the Study

Following are the objectives framed by the researcher to know the solvency and profitability position of the National Thermal Power Corporation Limited.

- To appraise the liquidity position of the company
- To analyse the profitability position of the company

### Methodology

The study is purely based on secondary data. The data have been collected from published annual reports on National Thermal Power Corporation Limited, covers a period of 5 years from 2011-12 to 2015-16. The relevant literatures for analyze the financial aspects are collected from various text book, articles, newspaper and related website. To know the financial efficiency of National Thermal Power Corporation Limited, So, the researcher has to analyze the short term solvency and profitability position with the help of Ratio analysis. However the selection of ratio used for evaluating the performance of an entity should be based on nature of its activities and objective

to be achieved. The performance of the NTPC has been analysed through solvency and profitability analysis.

- A. Short term solvency
- B. Profitability analysis

**1. Short Term Solvency**

Liquidity Ratios are also termed as Short-Term Solvency Ratios. The term liquidity means the extent of quick convertibility of assets in to money for paying obligation of short-term commitment. Accordingly, liquidity ratios are useful in obtaining an indication of a firm's ability to meet its current liabilities, but it does not reveal how effectively the cash resources can be managed. To measure the liquidity of a firm, the following ratios are commonly used:

- Current Ratio.
- Quick Ratio (or) Acid Test or Liquid Ratio.
- Absolute Liquid Ratio (or) Cash Position Ratio.

**1.1 Current Ratio**

Current Ratio establishes the relationship between current Assets and current Liabilities. It attempts to measure the ability of a firm to meet its current obligations. In order to compute this ratio, the following formula is used:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The two basic components of this ratio are current assets and current liabilities. Current asset normally means assets which can be easily converted in to cash within a year's time. On the other hand, current liabilities represent those liabilities which are payable within a year. The ideal current ratio is 2: 1. It indicates that current assets double the current liabilities are considered to be satisfactory. Higher value of current ratio indicates more liquid of the firm's ability to pay its current obligation in time. On the other hand, a low value of current ratio means that the firm may find it difficult to pay its current. The following table represents the relationship of current assets and current liabilities in order to measure the current ratios:

**Table 1:** Current Ratio (in Crores)

S. No.	Year	Current Assets	Current Liabilities	Ratio
1	2011-12	41,211.03	20,795.01	1.98
2	2012-13	44,791.67	26,698.54	1.68
3	2013-14	44,385.39	29,664.91	1.50
4	2014-15	41,791.62	35,946.33	1.16
5	2015-16	34,556.57	40,090.17	0.86

*Source:* Compiled By Researcher from Various Annual Reports of the NTPC

The above table no 1 express the ratio of current ratio of the national thermal power corporation, however it reveals that the ratio below the norm standard all over the study period. Which lead to affect the firm to pay off its obligations, however in the year of 2015-16 current ratio are less than its current liabilities, it is endanger to the firm.

**1.2 Quick Assets Ratio**

Quick Ratio also termed as Acid Test or Liquid Ratio. It is supplementary to the current ratio. The acid test ratio is a more severe and stringent test of a firm's ability to pay its short-term obligations 'as and when they become due. Quick Ratio

establishes the relationship between the quick assets and current liabilities. The ideal Quick Ratio of 1:1 is considered to be satisfactory. High Acid Test Ratio is an indication that the firm has relatively better position to meet its current obligation in time. On the other hand, a low value of quick ratio exhibiting that the firm's liquidity position is not good. In order to compute this ratio, the below presented formula is used

$$\text{Quick Assets Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

**Table 2:** Quick Assets Ratio (in Crores)

S. No.	Year	Quick Assets	Current Liabilities	Ratio
1	2011-12	37,033.19	20,795.01	1.78
2	2012-13	39,884.51	26,698.54	1.50
3	2013-14	38,397.95	29,664.91	1.30
4	2014-15	33,819.16	35,946.33	0.94
5	2015-16	26,597.41	40,090.17	0.66

*Source:* Compiled By Researcher from Various Annual Reports of the NTPC

The above table no 2 shows that the ratio of quick assets are above the norm standard during the first three years of study period, but in the last two years is less than the norm, which influence the financial position of the firm. The values of current liabilities are increasing all over the study period, but the quick assets are not in increasing trend. It indicates that NTPC had slow paying debtors.

**1.3 Cash Position Ratio**

Absolute Liquid Ratio is also called as Cash Position Ratio (or) Over Due Liability Ratio. This ratio established the relationship between the absolute liquid assets and current Liabilities. Absolute Liquid Assets include cash in hand, cash at bank, and marketable securities or temporary investments. The optimum value for this ratio should be one, i.e., 1: 2. It indicates that 50 per cent worth absolute liquid assets are considered adequate to pay the 100 per cent worth current liabilities in time. If the ratio is relatively lower than one, it represents that the company's day-to-day cash management is poor. If the ratio is considerably more than one, the absolute liquid ratio represents enough funds in the form of cash to meet its short-term obligations in time. The Absolute Liquid Ratio is calculated by dividing the total of the Absolute Liquid Assets by Total Current Liabilities. Thus,

$$\text{Cash Position Ratio} = \frac{\text{Absolute Cash}}{\text{Current Liabilities}}$$

**Table 3:** Cash Position Ratio (in Crores)

S. No.	Year	Absolute Cash	Current Liabilities	Ratio
1	2011-12	19,709.78	20,795.01	0.94
2	2012-13	20,360.58	26,698.54	0.76
3	2013-14	18,687.63	29,664.91	0.62
4	2014-15	16,139.00	35946.33	0.45
5	2015-16	5,736.95	40090.17	0.14

*Source:* Compiled By Researcher from Various Annual Reports of the NTPC

The table no 3 indicates the cash position ratio of the national thermal power corporations, the ratio is above the standard,

from upto the 2013-14 and in the last years the ratio is less than the norm which represents that the management is suffering of poor cash flow in the management. The table express that the value of current liabilities are increasing, but the absolute cash is continuously decreasing from the last four years of the study period, However the ratio trend declining continuously from all the study period. So it is not good for the firm because it leads to increase the cost of capital.

**2. Profitability**

Business is conducted primarily to earn profits. The amount of profit earned, measures the efficiency of a business. The greater the volume of profit, the higher is the efficiency of the concern. The profit of a business may be measured and analyzed by studying the profitability of investments attained by the business.

The word 'profitability' is composed of two words, namely; profit and ability. The term profit refers to the absolute quantum of profit, The term ability indicates the power of a firm to earn profits. The ability of an enterprise also denotes its earning power or operating performance. Also the business ability points towards the financial and operational ability of the business. So, on this basis profitability may be defined as —the ability of a given instrument to earn a return from its use". Weston and Brigham define profitability as "the net surplus of a large number of policies and decisions."<sup>1</sup> The profitability position of the NTPC has been analysed by the following profitability ratios of the ratio analysis.

**2.1 Gross Profit Ratio**

Gross profit ratio is important for management because it highlights the efficiency of operation and also indicates the average speed between the operating cost and revenue. Any difference position in this ratio is the result of a change in the operating cost or revenue or both. The main objective of computing this ratio is to determine the efficiency with which operations are carried on. The gross profit ratio is also known as gross margin ratio, trading margin ratio. Gross profit is highly significant to understand the earning capacity of the business. It is very useful as a test of profitability and management efficiency. It is generally contented that the margin of gross profit should be sufficient enough to recover all operating expenses and also leave adequate amount as net profit in relation to sales and owner’s equity.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

**Table 4:** Gross profit ratio (in Crores)

S. No.	Year	Gross Profit	Sales	Ratio
1	2011-12	22,848.58	66365.89	34.42
2	2012-13	29,652.86	72669.65	40.80
3	2013-14	30,383.1	79619.15	38.16
4	2014-15	29,063.78	81356.92	35.72
5	2015-16	30,021.22	79545.42	37.74

*Source:* Compiled By Researcher from Various Annual Reports of the NTPC

The above table 4 shows the gross profit ratio of firm, which results that ratio is satisfactory one even the ratio are

fluctuating. The value of sales is increasing in first four years of the study period but in last year there is decrease in their value. The value of gross profit is fluctuating all over the study period. The gross profit ratios are recorded high 40.80 in 2012-13, and it recorded low 34.42 in 2011-12.

**2.2 Net Profit Ratio**

The net profit ratio indicates that the ability of management to operate the business with sufficient success not only to recover from revenues of the period, all the expenses including depreciation and interest, but also to leave a margin of reasonable compensation to the owners for providing their capital at risk. In other words, this ratio is the overall measure of the firm’s ability to turn each rupee of revenue into profit. The profit margin is indicative of the cost of merchandise or services, the expenses of operating the business and the cost of borrowed funds. The net profit ratio is computed by the following formula,

$$\text{Net profit ratio} = \frac{\text{Net profit}}{\text{Net sales}} \times 100$$

**Table 5:** Net Profit Ratio (in Crores)

S. No.	Year	Net Profit	Net Sales	Ratio
1	2011-12	13137.26	65,893.25	19.93
2	2012-13	15042.66	72,098.09	20.86
3	2013-14	14485.76	78,950.63	18.34
4	2014-15	10567.65	80,611.94	13.10
5	2015-16	10092.55	7,8705.5	12.82

*Source:* Compiled By Researcher from Various Annual Reports of the NTPC

The Table No 5 shows the net profit ratio of the said company and it was inferred from the above Table No 5 that the ratio of net profit is decreasing during the study period. The value of net profit is decreasing from the last three years of the study period, however it shows increase in the year 2012-13, the value of net profit recorded highest in 2012-13 (20.86) and it was low in 2015-16 (12.82). It was revealed from the above table that the Net profit ratio is decreasing in the end of the study period, which is not good indication for the profitability of the said company. The high ratio indicates the cost of production is rising.

**2.3 Net Operating Profit Ratio**

Operating income is a measure of profitability that tells investors how much revenue will eventually become profit for the company. The operating profit reveals the return from standard operations, excluding the impact of extra ordinary items and other compressive income it shows the extent to which a company is earning a profit from standard operations as opposed to resorting to asset sales or unique transactions to post an artificial profit.

The Net Operating Profit Ratio expresses the relationship between net operating profit and net sales. Operating Profit Ratio indicates the operational efficiency of the firm and is a measure of the firm's ability to cover the total operating expenses. Moreover, in the present study, net Operating profit is taken as the excess of gross profit over non operating expenses, depreciation and taxes that is earning before interest

<sup>1</sup> Weston. J, F and Brigham. E.F, Essential of Managerial Finance. pp 48

and taxes. Net operating ratio helps to determine the efficiency with which affairs of business are being managed. A high ratio indicates that improvement in the operational efficiency of the business and vice versa.

$$\text{Net Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

**Table 6:** Net Operating Profit Ratio (in Crores)

S. No.	Year	Operating profit	Net sales	Ratio
1	2011-12	18,967.0	65,893.25	28.78
2	2012-13	25,106.97	72,098.09	34.82
3	2013-14	25,508.32	78,950.63	32.30
4	2014-15	23,781.21	80,611.94	29.50
5	2015-16	23,742.01	7,8705.5	30.16

Source: Compiled By Researcher from Various Annual Reports of the NTPC

The Table No 6 analyses the net operating profit ratio of the NTPC, the above table reveals that the ratio of operating profit ratio are fluctuating from the last three years of the study period, but there is increase in year 2012-13. It was inferred from the above table that the value of operating profit is directly influence the ratio even the sales were increased. So they want to control the operating expenses.

**2.4 Return on Investments Ratio**

This ratio is also called as ROI. This ratio measures a return on the owner's or shareholders' investment. This ratio establishes the relationship between net profit and the owner's investment. Usually this is calculated in percentage, this ratio, thus can be calculated as:

$$\text{Return on investment} = \frac{\text{Net profit after tax}}{\text{Share holders fund}} \times 100$$

**Table 7:** Return on Investment (in Crores)

S. No.	Year	Net profit after tax	Shareholder fund	Ratio
1	2011-12	9,814.66	74,275.81	13.21
2	2012-13	12,586.22	81,240.95	15.05
3	2013-14	11,403.40	87,003.49	13.11
4	2014-15	9,992.37	82,093.98	12.17
5	2015-16	10,162.43	89,196.51	11.39

Source: Compiled By Researcher from Various Annual Reports of the NTPC

The Table No 7 shows the ratio of return on investments of the said company, it was examined from the table that ratio shows decreasing trend during the last three years of the study period, however there is increase in the year 2012-13. The ratio was recorded high in year 2012-13 (15.50) and it was low in the year 2015-16 (11.39). it was observed from the above table that the value of net profit after tax and share holder fund are fluctuating during the study period however return on investment is more than 10 per cent from all over the study period. So it indicates that NTPC earning capacity is more satisfactory but the fluctuating trend of profit is not good for future.

**2.5 Return on Capital Employed**

Return on capital employed is the most important ratio for testing profitability of a business and measures the overall

performance of a business in terms of profitability. It reveals that relationship between profit earned and capital employed to earn it. The term 'capital employed' refers to long-term funds supplied by the creditors and owners of the firm. This ratio is more appropriate for evaluating the efficiency of internal management. It indicates how well the management has utilised the funds supplied by the owners and creditors. It is calculated by below formula.

$$\text{Return on Capital Employed} = \frac{\text{Operating profit}}{\text{Capital Employed}} \times 100$$

**Table 8:** Return on Capital Employed (in Crores)

S.no	Year	Operating profit	Capital employed	Ratio
1	2011-12	18,967.0	129127.75	14.69
2	2012-13	25,106.97	145828.67	17.21
3	2013-14	25,508.32	842426.49	3.03
4	2014-15	23,781.21	175456.90	13.55
5	2015-16	23,742.01	191434.79	12.40

Source: Compiled By Researcher from Various Annual Reports of the NTPC

The above Table No 8 shows the ratio of return on capital employed of NTPC, it indicates that the ratio shows sustainable trend during the study period. the value of operating profit are increasing the first three years of the study period after that is shows the decreasing in their value, however the value of capital employed are increasing all over the study period except 2014-15 there is decrease in their value. The ratio of the return on capital employed of National Thermal Power Corporation below the 20 per cent from all over the study period, which means the company has not used the capital employed in efficient manner.

**Findings of the Study**

**Findings Related To Short Term Solvency**

- The current ratio is decreasing all over the study period and it is below the norm standard.
- The current liabilities are increasing where as the current assets are decreasing during the study period.
- The quick ratio of the said company is decreasing during the study period
- The quick ratio from last two years is less than the norm, it means there is slow paying of debtors.
- The cash position ratio of said company is above the standard and it is below the norm from last two years.
- The value of absolute cash of the said company is decreasing, which led to influence the ratio is also decreasing.

**Findings Related To Profitability**

- The gross profit ratio of the company is satisfactory one even it shows fluctuating trend all over the study period.
- The value of sales are increasing all over the study period, however the value of gross profit is fluctuating during the study period.
- The percentage of Net profit ratio and value of net profit shows decreasing trend during the last three years of the study period.
- The Net profit ratio is above the standard, however there is downward trend in their percentage which will effect the profitability of the said company in future.

- The Ratio Net operating profit is above the standard, however it is decreasing from the last three years of the study period.
  - The value of operating profit is increasing in the first three years of the study period however in the rest of years it shows decrease. While as the Net sales shows increasing trend all over the study period except the year 2015-16.
  - The values of Net profit are fluctuating where as the share holder are increasing except 2014-15.
  - The ratio of return on investment is above the standard and it shows decreasing trend from the last three years of the study period.
  - The value of capital employed are increasing all over the study period except 2014-15, however the value of operating profit are increasing in first three years of study period after that it is decreasing.
  - The Ratio of capital employed is variable during the study period and it is decreasing from the years like 2013-14 and 2015-16 of the study period.
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### Recommendation

- The liquidity position of company is not good all the ratios of the liquidity are below the standard which is not sound for the company day to day requirements. So the researcher suggests the company should take necessary steps to maintain the adequate level of ratio, the current assets of the company are decreasing where as the current liabilities are increasing so the researcher recommends that the company should increase the proportionate of current assets to maintain the better liquidity position.
- The profitability position of the company is good, it means the resources are efficiently used by the management but the researcher examine some ratios of profitability shows decreasing trend while as they are above the standard. So the researcher recommends that the company should take necessary steps to take control on decreasing trend and also maintain same policies for the betterment of profitability in future.

### Conclusion

The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account. The first task is to select the information relevant to the decision under consideration from the total information contained in the financial statements. In short, “financial performance analysis is the process of selection, relation, and evaluation. The study results in that the liquidity position of company are not good, however the profitability position of the said company above the standard norm, which results that the company has been suffering by liquidity ratios. The study is recommending the management to use fund efficiently in order to avoid the risk of liquidity in future.

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