MANAGEMENT DISCUSSION AND ANALYSIS

INDUSTRY STRUCTURE AND DEVELOPMENTS

Power Sector is a key enabler for India's economic growth. The sector consists of generation, transmission and distribution utilities and is a crucial component of India's infrastructure. The achievements and developments along with various issues in various segments of the Industry have been discussed in the ensuing paragraphs.

Snap Shot 2015-16

- Gross annual generation of the country was 1107.82 BUs as compared to 1048.67 BUs in the previous year, a growth of 5.64%.
- Generation capacity of 23976.60 MW (excluding renewable) added during the year surpassing 22566.31 MW added in the previous year.
- 28114 Ckms of transmission lines added during the year as compared to 22101 Ckms in the previous year.
- 62849 MVA of transformation capacity added during the year as against 65554 MVA in the previous year.
- Marginal decline in PLF of thermal stations from 64.25% in financial year 2014-15 to 62.29% in the financial year 2015-16.
- Peak power deficit and energy deficit was 3.2% and 2.1% respectively as against 4.7% and 3.6% during financial year 2014-15.

(Source: Central Electricity Authority)

Existing Installed Capacity

The total installed capacity in the country as on March 31, 2016 was 302087.84 MW (including renewable) with private sector contributing 41% of the installed capacity followed by State Sector with 34% share and Central Sector with 25% share .

	Total Capacity (MW)	% share
State	101790.18	34.00
Centre	76296.75	25.00
Private	124000.91	41.00
Total	**302087.84**	**100.00**

(Source: Central Electricity Authority-Installed Capacity report)

During the financial year 2015-16, capacity of 23976.60 MW (excluding renewable) was added. With this the total capacity addition during the four years of XII plan period is 84990.72 MW (excluding renewable) which is about 96% of the planned capacity of 88537 MW for the XII Plan.

Capacity Utilization and Generation

Capacity utilisation in the Indian power sector is measured by Plant Load Factor (PLF).

Sector wise Generation and PLF (Thermal) (in %)

Sector	2015-16	2014-15
State	55.41	59.85
Central	72.52	74.20
Private	60.59	59.33
All India	62.29	64.25

The overall decline in PLF was mainly due to backing down/ shut down of units on account of low schedule from beneficiary states *(Source: Central Electricity Authority).*

The out-look of generation look promising with expected increased industrial production and Government of India's mission to provide 24x7 electricity to all.

Existing Generation

The total power available in the country during the financial year 2015-16 was 1107.82 billion units as compared to 1048.67 billion units during last year, registering a growth of 5.64%. (generation figures pertains to monitored capacity by CEA).

Sector-wise and fuel-wise break-up of generation (BUs) for the year 2015-16 is detailed as under:

Sector	Thermal	Hydro	Nuclear	Bhutan Import	Total
Central	315.25	56.68	37.41		**409.34**
State	291.83	53.16	-		**345.00**
Pvt/IPP	336.71	11.53	-		**348.24**
Bhutan Import	-	-	-	5.24	**5.24**
Total	**943.79**	**121.38**	**37.41**	**5.24**	**1107.82**

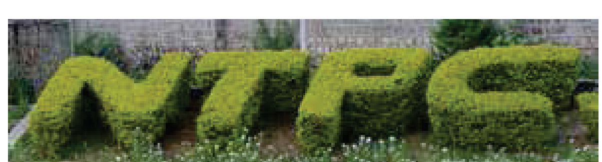
(Source: Central Electricity Authority)

As far as Thermal generation is concerned, based on the monitored capacity by CEA, the generation contribution of central sector is 33.40% with installed capacity share of 27.95%, state sector contributes 30.92% of generation with installed capacity share of 34.06% and private sector contributes 35.67% of generation with installed capacity share of 37.98%. Central Sector utilities have better performing stations as compared to those of State utilities and Private Sector.

Consumption

In terms of per capita power consumption, India ranks among the lowest in the world. The per capita consumption of power in India is just 1075 units in financial year 2015-16 (provisional). *(Source: Central Electricity Authority).*

Major end users of power can be broadly classified into industrial, agricultural, domestic and commercial consumers. These consumers represented approximately 44%, 18%, 23% and 8% respectively of power consumption measured by units of electricity consumed in the year 2014-15 (provisional). Traction & Railways and others represented about 7% of power consumption. The electricity consumption in Industry sector and commercial sector has increased at a much faster



pace compared to other sectors during 2005-06 to 2014-15 with CAGR of 10.69% and 8.10% respectively *(Source: Ministry of Statistics and Programme Implementation- Energy Statistics 2016).*

Transmission

The transmission network (at voltages of 220 kV and above) in the country has grown at an average rate of 8% p.a. till now in the XII Plan and is in line to achieve the target for the plan period.

Inter-regional transmission capacity has more than doubled in last four years from 27750 MW as at the end of XI plan to 58050 MW as on 31.03.2016. The augmentation of the national grid will help promote competition and enable merit order dispatch of generation leading to lower cost of power for consumers.

The AC substation transformation capacity has also expanded at a great pace which has increased from 399801 MVA at the end of XI plan to 643949 MVA as on 31.03.2016, while HVDC substation capacity has increased to 15000 MW as on 31.03.2016 from 9750 MW as at end of XI plan. *(Source: Central Electricity Authority)*

Over the next few years, the demand for transmission capacity is expected to increase significantly driven primarily by rising trend in power generation capacity, reforms in fuel sector and large scale integration of renewable energy.

Initiatives to strengthen the Transmission system include:

- Implementation of High Capacity Corridors and HVDC lines
- Green Energy Corridors to take care of ambitious renewal capacity addition.

Additionally, National Smart Grid Mission will enhance efficiency in power supply network and facilitate reduction in losses and outages.

Distribution

The electricity business is not merely about setting up power generation stations and transmission systems, but equally, and probably more crucially, about retailing electricity and recovering the cost of service from consumers.

The average tariff has increased in the past few years, but the rise has not been commensurate with the increase in the cost of supply. The consistent revenue gap, coupled with high AT&C losses have piled up huge losses for the state utilities.

In 2015-16, the tariff hikes have been modest and average increase is about 4%. Some of the SERC's did not approve any tariff revision for their distribution utilities, while one SERC has lowered the tariff by 5.7%.

Despite several schemes for revival of the distribution segment in the past, the financial and operational health of the discoms remains bleak. To improve the distribution segment's performance, Government of India launched the most comprehensive power sector reform scheme ever i.e Ujjwal Discom Assurance Yojana to turnaround Discoms (UDAY). UDAY coupled with other schemes such as Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) for rural India, Integrated Power Development Scheme (IPDS) are expected to turnaround the Distribution Sector.

Power Trading

In India, power is transacted largely through long term Power Purchase Agreements (PPA) entered into between Generating/Transmission Companies and the Distribution utilities. A small portion is transacted through various short-term mechanisms like trading through licensees, bi-lateral trading, trading through power exchanges and balancing market mechanism (i.e. Deviation Settlement Mechanism).

In the year 2015-16, around 89% of power generated in the Country was transacted through the long term PPA route. 11% of the power was transacted through trading mechanism which included trading through short term licensees, bi-lateral trading, trading through power exchanges and through Deviation Settlement Mechanism. *(Source: Central Electricity Regulatory Commission).*

Energizing the Power Sector – Key Initiatives and Reforms

The last 15 months has been the period of many positive developments in the Indian Power Sector and is now poised for leap frog growth in the coming years.

A chain is as strong as its weakest link and the same holds true for power value chain. Each link has to keep pace with other to achieve a sustainable performance. In Indian Power Sector, the weakest link has been the Distribution segment marred by huge financial losses due to high transmission and distribution losses, huge gap between cost and revenue and poor revenue realization. However, for healthy growth of the entire sector, Government of India has taken several initiatives which are briefly discussed below:

(A) Ujwal Discom Assurance Yojana (UDAY)

DISCOMs in the country have accumulated losses of approximately ₹ 3.8 lakh crore and outstanding debt of approximately ₹ 4.3 lakh crore (as on March, 2015). To facilitate the revival of the DISCOMs which have been struggling with losses and mounting debt, UDAY, the most comprehensive power sector reform scheme ever, was launched by the Central Government in November,2015. Key features of the scheme are as follows:

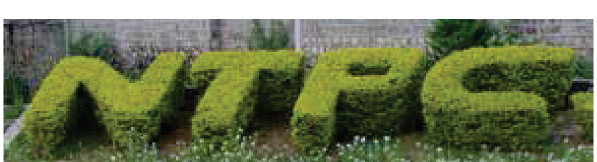
- States shall take over 75% of DISCOM debt as on 30 September 2015 over two years - 50% in 2015-16 and 25% in 2016-17.
- States will issue bonds in the market or directly to the respective banks / Financial Institutions (FIs) holding the DISCOM debt to the appropriate extent.
- DISCOM debt not taken over by the State shall be converted by the Banks / FIs into loans or bonds with interest rate not more than the bank's base rate plus 0.1%.
- Alternately, this debt may be fully or partly issued by the DISCOM as State guaranteed DISCOM bonds at the prevailing market rates which shall be equal to or less than bank base rate plus 0.1%. States shall take over the future losses of DISCOMs in a graded manner and shall fund them.

UDAY provides an opportunity to discoms to break-even in next couple of years through reduction in interest burden, cost of power, cutting down on AT&C losses and enhanced operational efficiency. UDAY has potential saving of ₹ 1,80,700 crore by 2018-19 through efficiency improvements.

Within few months of launch of Scheme, 18 states and 1 union territory have agreed to participate in the Scheme, covering about 90% of the total discom debt.

So far, 14 states have already signed MoUs with Ministry of Power for implementing the scheme and Bonds of over ₹1 lakh crore have been issued.

Discoms would benefit from improvement in their credit ratings as a result of financial and operational efficiencies and would help in raising cheaper funds for future capital investments.



(B) Revised Tariff Policy

In January,2016 tariff policy 2006 was amended with comprehensive changes to align it with the current state of the power sector. The amendments aimed at achieving the objectives of Ujwal DISCOM Assurance Yojana (UDAY) with the focus on 4 E's: electricity for all, efficiency to ensure affordable tariffs, environment for sustainable future and ease of doing business to attract investments.

To meet the government's objective of 24x7 power for all, it envisages setting up micro grids in rural areas where grid supply is unfeasible as well as setting-up small washery reject based plants nearby to make power affordable.

On the efficiency front, the focus is on power affordability for which policy allows 100% expansion of existing power projects to reduce tariffs as green field projects have higher costs. Policy also provides for sale of un-requisitioned power with benefit sharing allowing for reduction in overall cost.

With focus on augmenting renewable energy capacity and to promote sustainable practices, a number of initiatives such as renewable purchase obligation and renewable generation obligations have been envisaged.

Another focus area of Revised Tariff Policy is ancillary services. The central commission has been given the power to introduce norms for ancillary services necessary for maintaining power quality, reliability and security of the grid, including the method of sharing charges.

The policy also lays stress on improving business environment and investments in coal rich states being encouraged to create employment opportunities. Further, States will be allowed to set up plants with upto 35% of power procured by discoms on regulated tariff.

(c) Atomic Energy (Amendment) Act,2015

The Parliament passed the bill in December, 2015 paving the way for participation of PSU's in setting-up of Nuclear Power Plants which was so far limited to NPCIL and BHAVINI under the administrative control of Department of Atomic Energy. It has expanded the definition of Government Company to include Companies where the entire paid-up share capital is held by one or more Government Companies. Further, to allow participation of PSU's, amendment allows the central government to issue licenses for JV companies to set up nuclear power plants.

(d) Fuel Reforms

Historically availability of fossil fuel, particularly coal has been the cause of serious concern for thermal power generators. However, the last 15 months has proved to be quite dynamic with slew of measures taken by Central Government which inter-alia include coal mining reforms which focused on two key aspects- competitive auctions of coal mines and commercial mining. Competitive auction of coal mines would result in transfer of economic benefits to end consumers in the form of lower tariffs.

In February,2016 Ministry of Coal circulated policy guidelines for grant of "Bridge Linkage" to specified end-use plants of Central and State Public Sector Undertakings both for power as well as non-power sector which have been allotted Schedule-III coal mines under the Coal Mines (Special Provisions) Act, 2015 (CM(SP) Act) and coal blocks allotted under the Mines and Minerals (Development and Regulation Act), 1957 (MMDR Act)for a period of 3 years from the date of allotment of coal mine/block.In May,2016 bridge linkages were granted to 19 thermal power stations including 7 NTPC plants with a capacity of 12200 MW.This short term linkage will help the power generators to bridge the gap between requirement of coal and the start of production from the linked allotted coal mine/block.

In May,2016 a new policy for coal linkage allocation to increase flexibility in the utilization of domestic coal linkages was approved by the Cabinet. Under the framework, all long term linkages of individual state generating stations/central generating stations would be clubbed and assigned to the respective state(s)/ company owning the generation stations. Subsequent allotment of coal would be based on plant efficiency, coal transportation cost, transmission charges and overall cost of power.

The Ministry of Coal finalized the guidelines for the automatic coal linkage transfer policy to enable seamless transfer of fuel from old thermal power stations that have been scrapped to new super critical plants to enhance generation capacity, ensure lower emissions and optimize land as well as water usage. This is of great significance as over 36,000 MW capacity is more than 25 years old and needs to be replaced in phased manner. The policy has been further modified on 09.06.2016 which allows for automatic transfer of coal linkage from a scrapped unit to a new unit outside the state for Thermal Power Plants in the Central sector i.e. Central Gencos.

Based on the Inter-Ministerial Task Force (IMTF) recommendation, Government of India has also allowed swapping of coal to optimize distances and maximizing despatches of coal. This will help in reduction in cost of power as well as de-congest railway network.

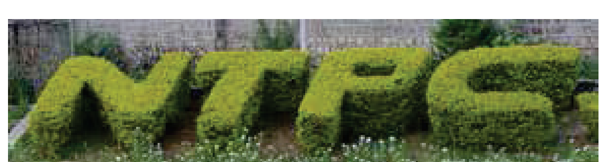
Recently, CSIR- Centre Institute of Mining and Fuel Research (CSIR-CIMFR) signed a Memorandum of Understanding with Coal Supplying companies and Power Utilities for quality analysis of coal being supplied to power utilities by coal companies. CSIR-CIMFR would make use of its knowledge based support in maintaining the quality of coal at national level for the entire power sector. It is estimated that about 300 million metric tons of coal samples would be analyzed for quality per year. It is also expected that this project will result in improvement in performance of power plants besides levaraging benefits to the consumer in particular and society as a whole. The endeavour would help the nation in sustainable energy supply and security planning for future as it may reduce import of thermal coal.

On the gas front, Government introduced a scheme for gas-based power projects, applicable for 2015-16 and 2016-17 for reviving the gas based capacity as many of the gas-based power were stranded or operating at sub-optimal levels due to non-availability of gas. The scheme envisages sacrifices to be made by all stakeholders as well as support from Power System Development Fund. The scheme resulted in revival of 11,717 MW of stranded gas based power projects with supply of Re-gasified Liquefied Natural Gas through transparent e-auction.

(e) Demand Side Management

Based on encouraging results of Cycle 1 of Perform Achieve and Trade mechanism, Cycle 2 for the period 2016-17 to 2018-19 has been further broadened with inclusion of more units from the existing sectors and addition of units from 3 new sectors i.e refineries , railways and electricity discoms. The designated customers selected in Cycle 2 account for 50% share in total energy consumption based on 2009-10 levels.

Government identified lighting as key focus area for energy efficiency. Under the Unnat Jyoti by Affordable LEDs for All (UJALA), more than 11 crore LED Bulbs has been distributed which resulted in cost saving of ₹16.24 crore per day and over 4 crore KWh per day and at the same time helped in reduction of CO_2 to the extent of 32,877 tonne per day



thereby reiterating India's commitment made at Conference of Parties (COP) 21 Summit held in Paris to reduce its energy intensity. *(Source: www.ujala.gov.in)*.

OPPORTUNITIES AND THREATS/CHALLENGES

Opportunities

The number of initiatives and reforms under taken by Government of India has opened door of opportunities across the power sector value chain and are briefly discussed below:

Hydropower Potential

At present, most of the hydropower potential ~ 145 GW is untapped due to major deterrent i.e environmental impact of HEPPs and bottlenecks in the execution of hydro projects such as lack of basic infrastructure such as roads and bridges, inadequate grid connectivity, higher capital cost, resettlement and rehabilitation, geology and long gestation period. To overcome these hurdles amendment to Tariff Policy has provided for exemption from competitive bidding till 2022, allowing distribution licensees to extend long term PPAs beyond 35 years by a further period of 15 years.

Further exclusion of Hydro Power from RPO and allowing flexibility to developers in depreciation rate etc will benefit the Discoms/consumers. All these measures expect to recharge hydroelectric power.

Nuclear Power

The amendment to Atomic Energy Act,2015 has paved the way for Public Sector Joint Ventures to participate in Nuclear Generation which so far was a restricted domain. This will help companies like NTPC Limited which had already formed a joint venture company with Nuclear Power Corporation of India limited to foray into nuclear power generation. This development coupled with many international agreements for fuel / technology procurement, steps to resolve liability issues through formation of insurance pool and Governments' focus on clean energy makes nuclear power an attractive option.

Renewable Energy

Apart form policy initiatives for the renewable sector, several measures in the solar power sector such as solar park policy, grid-connected rooftop solar plants and sharp decline in solar cost has made the investment in solar power business highly attractive.

On the wind power front, National Institute of Wind Energy under MNRE has estimated the country's wind energy potential at 100 metres above ground level to be of 302 GW. The Government envisages setting-up of 60 GW of wind power by 2022 augurs well for wind power developers. *(Source : National Institute of Wind Energy, MNRE)*

Transmission Sector

With significant growth in new transmission lines with significant contribution from Private Sector, an increase in pace of identifying and awarding interstate projects through tariff based competitive bidding, focus on smart grids, green energy corridors (GEC) to cater to renewable and micro grids for connecting rural areas /providing energy access to un-electrified areas has opened avenues for various players in the transmission sector which would require massive investment in coming years.

Threats/Challenges/Concerns

Inspite of tremendous progress made by the power sector in last few years, certain key concerns can potentially impact the sector. Some of the issues are briefly discussed below:

Environmental Concerns

The environmental concerns particularly relating to coal based thermal stations has emerged as a major issue. In December, 2015, Ministry of Environment, Forest and Climate change notified the new standards for Thermal Power Stations relating to water consumption, particulate matter, SOx, NOx and mercury. Notification deals with 3 categories – plants installed before 31.12.2003, after 2003 upto 31.12.2016 and beyond. The Thermal plants have to achieve the standards within 2 years from the date of publication of notice.

Although, it is a step in right direction for controlling pollution generated by Thermal Plants, however, keeping in view tight time lines and several constraints like non-availability of space in older plants and indigenous technology to handle poor quality of Coal, it may be extremely challenging to meet the revised standards. Further, implementation of new technology to take care of revised standards will increase the tariff considerably which is estimated to be ~ 50 paise per kWh.

Availability of Gas

Inspite of GoI's effort to revive beleaguered gas-based power plants through e-auction based allocation of imported RLNG which provided a subsidy from the Power System Development Fund as well sacrifices made by all stakeholders, the future of gas based power projects looks gloomy for want of adequate gas supply. The PLFs continue to remain low. The power sector has been struggling to recover costs from capital investment in gas-based capacity. To make gas-based power projects viable, long-term solutions need to be found.

Rural Electrification-Last Mile Connectivity

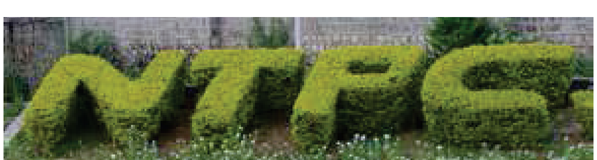
Rural electrification has been one of the key focus areas of the current Government. Central Government aims to provide electricity to all house- holds by 2019 through its flagship programme Deendayal Upadhyaya Gramin Jyoti Yojana (DDUGJY). Though only ~ 9,000 villages are yet to be electrified, however electricity is still to reach all homes. Presently, ~ 65% of the house-holds have electricity. However, last mile connectivity, quality, reliability and duration of supply remains the concern.

Integrating Renewable Generation

With massive renewable capacity planned to be added by 2022, integration of renewable generation with the grid poses a big challenge. The delays in acquisition of right of way, poor financial health of state utilities and other challenges of accommodating huge quantum of intermittent renewable energy can impede the progress.

Other Issues/Concerns

- Availability of land/ Right to use of land/Right of way on land.
- Availability of water.
- Environment and forest clearance at State level to expedite E&F clearance to the project .
- Logistics for movement of heavy machinery like roads and bridges.
- Human resource requirement commensurate with the requirement of the various skilled and unskilled jobs.
- Burden on states: The gap between Average Revenue Realized (ARR) & Average Cost of Supply (ACS) needs to be reduced.
- Impact on conventional power capacity: Increasing share of Renewables is not only going to reduce PLF of conventional power plants , but also force to regulate generation to compensate for intraday variation in power generation by RE sources.
- Grid integration issues: The integration of Renewable power into power systems results in 'integration costs' for grid which includes cost for balancing services, more



flexible operation of thermal plant, reduced utilization of transmission network.

OUTLOOK AND OPPORTUNITIES FOR THE COMPANY

Strategic focus of the Company

Your Company is market leader in power generation and has its presence in the entire power sector value chain which gives it a competitive edge in the market. Your Company continues to focus on scaling up generating capacity through a mix of conventional and non-conventional fuel sources , efficiently running its installed capacity, developing own coal mines and providing other value adding services like power trading, consultancy etc.

The key is not to add capacity alone, but to see that the capacity which has been added is financially viable and also does not become stranded as has been the case with many IPP's. As a policy, the Board of Directors of your company accord investment approval only after having 5 basic requirements in place viz. land, water, environment clearance, fuel supply arrangements and power purchase agreement(s) (PPAs) .

In-organic growth opportunities

Your Company also scouts for acquisition of power plants at attractive valuations for adding capacity after analysing the technical and financial viability of the project(s). Considering a lot of capacity of private/state developers is stranded there is a good scope for consolidation in the sector. Recently, your company formed a Joint Venture Company with Jharkhand Bijli Vitran Nigam Limited (JBVNL) to acquire, establish, operate, maintain, revive, refurbish, renovate and modernize the performing existing units and further expand capacity of Patratu Thermal Power Station, District Ramgarh, Jharkhand in two phases i.e. Phase-I (3X800 MW) and Phase –II (2X800MW).

Government of Jharkhand issued the Notification dated 1st April 2016 for transfer of assets of Patratu Thermal Power Station to Patratu Vidyut Utpadan Nigam Limited, resulting in addition of 325 MW to NTPC's Group capacity.

Fuel Security

As discussed elsewhere in Management & Discussion Analysis, GoI has laid a lot of emphasis on improving coal supplies over the next five years; accordingly the Company expects to receive better coal supplies under its long term coal supply agreements. Coupled with its captive coal mines, your Company strives to ensure long term fuel security. With increased supplies of domestic coal, reliance on imported coal has also come-down thereby contributing to reduction in cost of power.

Your Company has been allocated 10 coal blocks with estimated geological reserves of ~7 billion tonnes with estimated mining capacity of 107 million tonnes per annum. Your Company has opened Pakri-Barwadih coal mining project from Western Pit and expects to extract coal shortly. Appointment of Mine Developer cum operator is under process for three other mines. Other mines are under various stages of development.

Your Company led the coal rationalisation initiative of GoI to reduce transport costs and avoid criss-cross movement of coal to decongest the railway network.

Renewable Energy

In line with GoI's mission of achieving renewable capacity of 175 GW by 2022 and being partner in progress of nation, your company is focussed on adding renewable energy to its portfolio even though generation capacity based on fossil fuel remains the mainstay of the Company's power portfolio. Your company is committed to add 10 GW of own renewable power capacity, select solar power developers for 15 GW under National Solar Mission and also involved in bundling of solar power with conventional power from its older plants to reduce the cost of renewable power. Your Company takes cognisance of the challenges of adding renewable energy capacity in India and will add such capacity progressively. Further to provide impetus to green energy, GoI allotted tax free bonds of ₹ 5,000 crore to various CPSE's. Your Company was one of the beneficiaries of allotment of tax-free bonds which will go a long-way in reducing the cost of renewable power.

Off-take and realisation

There have been concerns about the huge capacity addition programme undertaken by your company due to weak off-take and current energy and peak deficit numbers. Your company firmly believes that the ground reality is going to be different as structural reforms put in place in the distribution segment through UDAY will show results in coming years and with improved financial health of the discoms and the economic growth of the country, the demand will pick-up.

Almost, the entire output of the your company's power stations has been contracted under long term PPAs. Further, your Company produces power at a very competitive cost. The average tariff for financial year 2015-16 was ₹3.18/kWh as against ₹ 3.28/kWh for the previous year. Low cost of power mitigates off-take risks. Your Company has, for the 13th consecutive year, realised 100% of its dues and is confident of maintaining its track record in future also.

Leveraging on strengths for delivering better future performance

Your Company derives competitive edge from its strengths and is confident of meeting future challenges in the sector.

a. Project Management

Your Company has adopted an integrated system for the planning, scheduling, monitoring and controlling of approved projects under implementation. To coordinate and synchronise all the support functions of project management it relies on a three-tiered project management system known as the Integrated Project Management Control System which integrates its engineering management, contract management and construction management control centres.

Your company has successfully effected standardization, bulk ordering of 660 MW and 800 MW units and Engineering Procurement and Construction (EPC) contracting to reduce engineering time and thereby reduce project execution time.

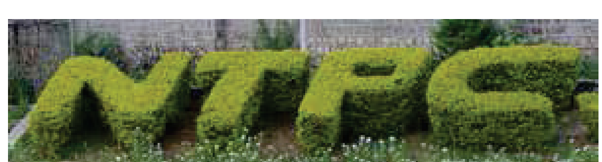
Your company commissioned a 500 MW unit at Vindhyachal before the schedule time thereby entitling it to earn additional return of 0.5% on equity deployed in the unit.

b. Operational Efficiency

The operating performance of NTPC has been considerably above the national average. During the financial year 2015-16 PLF of coal stations was 78.61% against all India PLF of 62.29%. Over the years, NTPC has consistently operated at much higher operating efficiency as compared to All India operating performance.

In order to achieve cost-competitive, environment friendly, efficient & reliable power generation, the company has adopted following strategies:-

- Advance alert/support to stations through remote (Special Analytics & Computational services center) analysis of critical operation parameters, which in turn



improves system reliability, reduction of outages & maintenance costs.

- ➢ Reduction of forced outages through knowledge based unit overhaul & maintenance practices.
- ➢ Optimizing planned outage period through implementation of overhaul preparedness index, ensuring all quality checks and time bound monitoring of each activity.
- ➢ To implement best practices at enterprise level, knowledge teams for each equipment has been created.
- ➢ Improvement in Heat Rate & Auxiliary Power Consumption achieved by parametric optimization at part loads by operation of units in sliding pressure mode & optimizing excess air.
- ➢ To minimize efficiency losses in stations, process interface (PI) system based applications for real time efficiency & loss calculations.
- ➢ Structured & regular energy audit helps to identify potential areas of improvement in APC reduction which are being addressed in planned time bound implementation schedule.
- ➢ Implementation of Energy Efficiency Management System (EEMS) consisting of periodic assessments, field tests, performance gap analysis deviations and updation of action plans at all stations.
- ➢ To reduce cost of thermal generation, steps have been taken to maximize use of domestic coal, swapping of coal sources to reduce transport cost & proper blending.
- ➢ Use of comprehensive Performance Evaluation Matrix for relative evaluation of the performance of various power plants over a set of comprehensive performance indicators to create an environment of in-house challenge and competition. The parameters are reviewed annually to include new set of parameters commensurate with market dynamics and development of power sector.
- ➢ Adopting advanced technologies in new units e.g. commissioning of super critical units, which improves system efficiency & reduces carbon foot print.
- ➢ Renovation & modernization for reduction of greenhouse gas emissions, effective modernized control systems for environment friendly economic generation.

c. Human Resources

Your Company has been conferred with various HR awards over the years by reputed institutions. Your company is deeply passionate about ensuring the holistic development of all its employees as distinct individuals and good citizens. Competence building, Commitment building, Culture building and Systems building are the four pillars on which HR systems of your company are based.Your Company has a highly talented team of committed professionals and has been able to induct, develop and retain the best talent. The commitment of the employees is also reflected in terms of financial parameters such as sales/employee, PAT/per employee, value added/per employee etc. We have a pool of ~23,000 employees creating value for the Company. Your Company has a very low executive attrition rate.

d. Sound Corporate Governance

Your Company's corporate governance practices have been recognised and awarded at several forums. It enjoys the confidence of investors and all other stakeholders alike. Your Company not only believes in adopting best practices but also includes public interest in its corporate priorities and has developed extensive social outreach programmes.

e. Robust financials and systems

Your Company has strong financial systems in place. It believes in prudent management of its financial resources and strives to reduce the cost of capital. Your company enjoys highest credit-rating assigned by CRISIL, ICRA and CARE. The foreign ratings by Fitch and S&P are at par with sovereign ratings. It has robust financials leading to strong cash flows which are being progressively deployed in generating assets. Your Company has a strong balance sheet coupled with low gearing and healthy coverage ratios. As a result, your Company has been able to raise resources for its capital expansion projects at very competitive interest rates.

RISK, CONCERNS AND THEIR MANAGEMENT

Your Company has an elaborate Enterprise Risk Management framework in place. A Functional Director level Committee called Risk Management Committee (RMC) has been constituted. The RMC is responsible to identify & review the risks and to formulate action plans and strategies to mitigate risks on short term as well as long term basis.

The ERMC has identified 25 risks and out of which 7 have been classified as the top risks for the company:

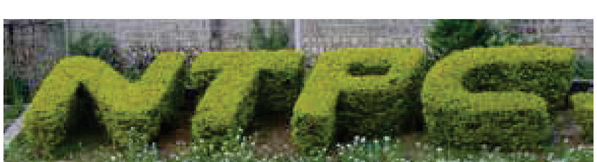
- Inadequate fuel supply
- Difficulties in acquisition of land
- Delay in execution of projects
- Risks related to coal mining
- Risks pertaining to Hydro Projects
- Compliance of emission, ash utlization and regulatory norms
- Sustaining efficient plant operations

These areas are being regularly monitored through reporting of key performance indicators of identified risks. Exceptions with respect to risk assessment criteria are reported regularly to the Board of Directors.

Internal Control

To ensure regulatory and statutory compliance as well to provide highest level of corporate governance, your Company has robust internal systems and processes in place for smooth and efficient conduct of business and complies with relevant laws and regulations. A comprehensive delegation of power exists for smooth decision making which is being periodically reviewed to align it with changing business environment and for speedier decision making. Elaborate guidelines for preparation of accounts are followed consistently for uniform compliance. In order to ensure that all checks and balances are in place and all internal control systems are in order, regular and exhaustive internal audits are conducted by the experienced firms of Chartered Accountants in close co-ordination with the Company's own Internal Audit Department. Besides, the Company has two committees of the Board viz. Audit Committee and Committee on Management Controls to keep a close watch on compliance with Internal Control Systems.

A well defined internal control framework has been developed identifying key controls. The supervision of operational efficiency of designed key controls is done by Internal Audit. The framework provides elaborate system of checks and balances based on self assessment as well as audit of controls conducted by Internal Audit at the process level. Gap Tracking report for operating efficiency of controls is reviewed by the management regularly and action is taken



to further strengthen the Internal Control System by further standardizing systems & procedures and implement process changes, wherever required, keeping in view the dynamic environment in which your Company is operating. The Internal Control Framework system presents a written assessment of effectiveness of Company's internal control over financial reporting by the process owners to facilitate certification by CEO and CFO and enhances reliability of assertion.

FINANCIAL DISCUSSION AND ANALYSIS

A detailed financial discussion and analysis on Financial Statements is furnished below. Figures of previous year have been regrouped/ rearranged wherever necessary. Reference to Note(s) in the following paragraphs refers to the Notes to the Financial Statements for the financial year 2015-16 placed elsewhere in this report:

A Results from Operations

1 Total Revenue (Note 22 & 23)

		FY 2015-16	FY 2014-15	Change
	Units of electricity sold (MUs)	224,926	225,003	0%
	Revenue			Amount in ₹ Crore
1	Energy Sales (including electricity duty)	70,661.33	73,197.61	-3%
2	Consultancy & other services	117.05	109.78	7%
3	Energy internally consumed	81.82	86.21	-5%
4	Interest from beneficiaries	221.29	332.82	-34%
5	Provisions for tariff adjustments written back	154.51	180.16	-14%
	Revenue from operations (gross)	71,236.00	73,906.58	-4%
6	Less:- Electricity duty	729.20	669.64	9%
	Revenue from operations (net)	70,506.80	73,236.94	-4%
7	Other income	1,189.27	2,100.42	-43%
	Total revenue	**71,696.07**	**75,337.36**	**-5%**

The revenue of the Company comprises income from energy sales (net of electricity duty), consultancy and other services, interest earned on investments such as term deposits with banks, bonds (issued under One Time Settlement Scheme) and dividend income from subsidiary & joint venture companies and mutual funds. The total revenue for financial year 2015-16 is ₹ 71,696.07 crore as against ₹ 75,337.36 crore in the previous year, registering a decrease of 5%. The main reasons for reduction in Total Revenue are decrease in the energy charges and also reduction in Other Income as explained elsewhere in the section.

The major revenue comes from Energy Sales. The tariff for computing Energy Sales is determined in terms of Central Electricity Regulatory Commission Regulations as notified from time to time which are briefly discussed below:

Tariff for computation of Energy Sales

The Central Electricity Regulatory Commission (CERC) notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (Regulations, 2014) on 21st February, 2014 for the period 2014-19. Pending issue of final/provisional tariff orders under Regulations, 2014 by the CERC, sales have been provisionally recognized on the basis of principles enunciated in Regulations, 2014. As per the Regulations, 2014, the tariff for supply of electricity comprises of two parts i.e. Capacity Charges for recovery of Annual Fixed Cost based on plant availability and Energy Charges for recovery of fuel cost. In addition, Regulations also provide for the recovery of certain miscellaneous charges. The CERC sets tariff for each stage of a station in accordance with the notified tariff regulations/norms.

Capacity Charges

The capacity charges are allowed to be recovered in full if plant availability is at least 83%. If the availability of the plant is lower than 83%, the capacity charges are recovered on a pro-rata basis based on normative parameters as specified in the said Regulations.

Further, under the Regulations, 2014, the provision for the recovery of capacity charges in full at the plant availability of 83% is subject to the review after 3 years from 01.04.2014 i.e. the date on which Regulations,2014 came into force.

Energy Charges

Energy charges for the electricity sold are determined on the basis of landed cost of fuel applied on the quantity of fuel consumption derived on the basis of norms for heat rate, auxiliary power consumption, specific oil consumption etc.

Other Charges

Besides the capacity and energy charges, the other elements of tariff are:

- Deferred tax liability for the period upto 31.03.2009 on generation income is allowed to be recovered from the customers on materialization.
- Cost of hedging in respect of interest and repayment of foreign currency loans and exchange rate fluctuations for the un-hedged portion of interest and repayment of foreign currency loans on a normative basis.

In addition, the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014, provides for charges for the deviations in generation with respect to schedule, payable (or receivable) at rates linked to average frequency to bring grid discipline and security.

Each element of total revenue is discussed below:

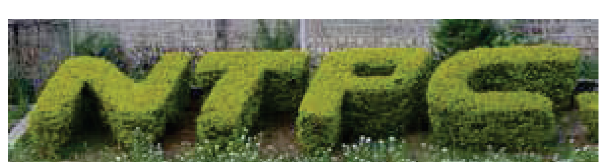
Energy sales (including electricity duty)

Your Company sells electricity to bulk customers mainly, electricity utilities owned by State Governments as well as private discoms operating in States. Sale of electricity is made pursuant to long-term Power Purchase Agreements (PPAs) entered into with beneficiaries.

Income from energy sales (including electricity duty) for the financial year 2015-16 was ₹ 70,661.33 crore which constituted 99% of the total revenue. The income from energy sales (including electricity duty) has reduced by 3% over the previous year's income of ₹ 73,197.61 crore. Mainly due to reduction in cost of coal owing to reduced reliance on imported coal and swapping of coal linkages.

During the year, there is an increase in the commercial capacity by 1960 MW as detailed under:-

Project/Unit	Capacity (MW)	Commercial Operation Date
Koldam Hydro Unit # 1, 2, 3 & 4	800	18.07.2015
Vindhyachal Unit # 13	500	30.10.2015
Barh Unit # 2	660	18.02.2016
Total	**1960**	



Further, the commercial capacity of 695 MW comprising 20 MW of Solar PV capacity at Rajgarh, Unit#1 of 660 MW of Barh-II and 15 MW of Solar PV capacity at Singrauli which were declared under commercial operation during the financial year 2014-15, were available for the entire financial year 2015-16 as compared to part of financial year 2014-15.

For the financial year 2015-16, pending issue of provisional/final tariff orders w.e.f. 01.04.2014 for all the stations, billing to the beneficiaries was done according to the tariff approved and applicable as on 31.03.2014, as provided in the Regulations, 2014 (Note 22.a). The amount provisionally billed for the year ended March 31, 2016 on this basis is ₹ 69,950.05 crore.

Your Company filed a petition before the Hon'ble High Court of Delhi contesting certain provisions of the Regulations, 2014. On the directions from the Hon'ble High Court of Delhi, on the issue of 'point of sampling' for measurement of GCV of coal 'as received', CERC has issued an order (subject to final decision of the Hon'ble High Court of Delhi) that samples for measurement of coal 'as received' basis should be collected from loaded wagons at the generating stations. CERC vide their order dated 30.06.2016 reiterated that coal samples for measurement are to be taken from railway wagons at the generating stations, however, it is also subject to final order of Hon'ble High Court of Delhi.

Pending disposal of the review petition as on 31.03.2016 and issue of provisional/final tariff orders under Regulations, 2014 by the CERC, sales have been provisionally recognized on the basis of principles enunciated in Regulations, 2014. While recognizing the sales, on the basis of principles enunciated in Regulations, 2014, the energy charges (included in sales, in respect of the coal based stations) have been recognized based on the GCV 'as received' measured after secondary crusher which is generally within the station and at a distance less than one KM from the unloading point of the wagons. The sales provisionally recognized for the year ended March 31, 2016 on this basis is ₹ 71,546.92 crore (Note 22.b).

Sales include ₹ 50.74 crore pertaining to previous years recognized based on the orders issued by the CERC/Appellate Tribunal for Electricity (Note 22.c).

Sales also include (-) ₹ 1,693.65 crore on account of income-tax payable to the beneficiaries as per Regulations, 2004 (Note 22.d).

As per Regulations, 2014, the deferred tax liability for the period before 01.04.2009 shall be recovered from the beneficiaries whenever it materializes. Accordingly, sales also include ₹ 28.12 crore on account of deferred tax materialized which is recoverable from beneficiaries (Note 22.d).

Sales also include electricity duty on energy sales amounting to ₹ 729.20 crore. The same has been reduced from sales in the statement of profit and loss.

The average tariff for the financial year 2015-16 is ₹ 3.18/kWh as against ₹ 3.28/kWh in the previous year. The average tariff includes adjustments pertaining to previous years. If the impact of such adjustments were to be excluded, the average tariff would be ₹ 3.18/kWh in financial year 2015-16 as against ₹ 3.25/kWh in the previous year.

There has been 100% realization of the dues within the stipulated time frame for the thirteenth year in succession. All the beneficiaries have opened and are maintaining Letter of Credit equal to or more than 105% of average monthly billing as per One-Time Settlement Scheme (OTSS). In order to ensure prompt and early payment of bills for supply of energy to beneficiaries, your Company has formulated a rebate scheme by way of providing graded incentive for early payment based on the bill(s) raised on state utilities who are the members of NTPC's rebate scheme.

Under OTSS, tri-partite agreements are valid up to October 31, 2016. For the period beyond October 2016, nineteen states have accorded their consent for extension of Tri-partite Agreements (TPAs). Reserve Bank of India has also given "No Objection" for signing the TPAs.

Consultancy and other services

Accredited with an ISO 9001:2008 certification, the Consultancy Division of your Company undertakes consultancy and turnkey project contracts for domestic and international clients in the different phases of power plants viz. engineering, project management, construction management, operation & maintenance of power plants, Research & Development, Management Consultancy etc.

During the financial year 2015-16, Consultancy Division posted an income of ₹ 100.51 crore as against ₹ 100.37 crore achieved in the last financial year. In the financial year 2015-16, it has recorded a profit after tax of ₹ 22.02 crore as against ₹ 20.39 crore in the last financial year. Orders valued at ₹ 86.57 crore were secured by the division during the year.

Energy Internally Consumed

Energy internally consumed relates to own consumption of power for construction works at station(s), township power consumption, etc. It is valued at variable cost of generation and is shown in 'Revenue from Operations' with a debit to corresponding expense head under power charges. There is a decrease of 5% in the value of energy internally consumed during the year over the previous year mainly due to decrease in fuel cost.

Interest from beneficiaries

CERC Regulations provides that where after the truing-up, the tariff recovered is less than the tariff approved by the CERC, the Company shall recover from the beneficiaries the under recovered amount along-with simple interest. Accordingly, the interest recoverable from the beneficiaries amounting to ₹ 221.29 crore has been recognised as Interest from beneficiaries.

Provisions written back

During the financial year 2015-16, the Company had written back provisions for tariff adjustments made in earlier years amounting to ₹ 154.51 crore in comparison to ₹ 180.16 crore in the financial year 2014-15.

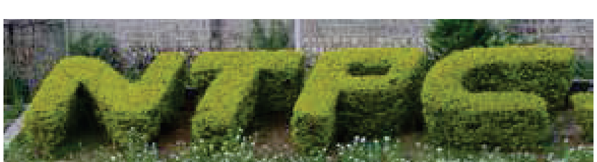
Other Income (Note 23)

'Other income' mainly comprises interest income from bonds issued under One Time Settlement Scheme (OTSS), income from term deposits with banks, dividend from investments in mutual funds and equity investment in subsidiary & joint venture companies and 'Other non-operating income'.

'Other income' in financial year 2015-16 was ₹ 1,189.27 crore as compared to ₹ 2,100.42 crore in the financial year 2014-15. Broadly, the break-up of other income is as under:

₹ crore

	FY 2015-16	FY 2014-15
Interest on OTSS bonds /Loan to State Government	115.45	263.35
Income from investment in bank term deposits, mutual funds, profit on redemption of current investments	495.05	1,421.23
Dividend from JVs and Subsidiary Companies/ Interest from Subsidiary Company	132.21	117.65
Income earned on other heads such as hire charges, profit on disposal of fixed assets, etc.	520.99	387.03
Total	**1,263.70**	**2,189.26**
Less: Transfer to EDC/ development of coal mines	74.43	88.84
Net other income	**1,189.27**	**2,100.42**



Interest income from OTSS bonds (including loan to State Government) for financial year 2015-16 is ₹ 115.45 crore as compared to ₹ 263.35 crore in financial year 2014-15. The reduction in interest income to the extent of ₹ 147.90 crore is due to redemption of OTSS bonds amounting to ₹ 1,651.46 crore and repayment of loan in lieu of settlement of dues to State Government amounting to ₹ 95.72 crore. During financial year 2015-16, all the bonds issued under the OTSS have been redeemed. The Company has earned income of ₹ 495.05 crore during the financial year 2015-16 on account of term deposits made in banks, investments in mutual funds and redemption of current investments as against ₹ 1,421.23 crore earned last year. The income from investment in bank term deposits, mutual funds, etc. has registered a decline of 65% from last financial year attributed to decrease in earnings on account of lower interest rates as well as decrease in average annual investment from ₹ 16,653 crore in financial year 2014-15 to ₹ 7,065 crore in financial year 2015-16. The average investment declined mainly on account of issue of Bonus Debentures out of free reserves in the last financial year.

We have earned ₹ 131.76 crore as dividend from our investments in joint venture companies. Further, ₹ 0.45 crore has been earned as interest from loan of ₹ 1.72 crore (as at March 31, 2016) extended to Kanti Bijlee Utpadan Nigam Limited, one of our subsidiary companies. Also, an amount of ₹ 520.99 crore has been earned from various other sources mainly consisting of surcharge received from beneficiaries ₹ 142.28 crore, miscellaneous income of ₹ 133.12 crore, sale of scrap ₹ 58.17 crore, interest from contractors ₹ 49.48 crore and interest on loans to employees ₹ 30.12 crore, etc.

2 Expenses (Statement of Profit & Loss and Note 24, 25 & 26)

2.1 Expenses related to operations

Year	FY 2015-16		FY 2014-15	
Commercial generation (MUs)	240,778		240,847	
Expenses	₹ Crore	₹ per kWh	₹ Crore	₹ per kWh
Fuel	43,793.25	1.82	48,833.57	2.03
Employee benefits expense	3,609.32	0.15	3,620.71	0.15
Generation, administration and other expense	5,787.39	0.24	4,911.28	0.20
Total	**53,189.96**	**2.21**	**57,365.56**	**2.38**

The expenditure incurred on fuel, employee benefits expense and generation, administration and other expenses for the financial year 2015-16 was ₹ 53,189.96 crore as against the expenditure of ₹ 57,365.56 crore incurred during the previous year. In terms of expenses per unit of power produced, it was ₹ 2.21 per unit in financial year 2015-16 as against ₹ 2.38 per unit in financial year 2014-15. Component-wise, there has been a decrease in the fuel cost and an increase in the generation, administration and other expenses. However, employee benefits expense has remained at the same level. The increase in commercial generation due to commercial operation of new units i.e. units declared under commercial operations during the year as well as units declared under commercial operation during financial year 2014-15 which were under operation for part of the previous year as against under operation for full year during the current year has resulted in an additional operational expenditure of ₹ 1,305.23 crore.

A discussion on each of these components is given below:

2.1.1 Fuel

Expenditure on fuel constituted 82% of the total expenditure relating to operations. Expenditure on fuel was ₹ 43,793.25 crore in financial year 2015-16 in comparison to ₹ 48,833.57 crore in financial year 2014-15 representing a decrease of about 10%. The break-up of fuel cost in percentage terms is as under:

	FY 2015-16	FY 2014-15
Fuel cost (₹ Crore)	43,793.24	48,833.57
		% break-up
Coal	92.86%	88.91%
Gas	6.06%	8.12%
Oil	0.85%	0.98%
Naphtha	0.23%	1.99%

For the financial year 2015-16, the expenditure towards coal has decreased, inspite of a marginal increase in the coal based generation, this is partly due to lower average price of coal during the financial year 2015-16 as compared to previous year and partly due to lower coal consumption. A part of the decline in expenditure is also attributable to rationalization of coal, coal swapping and lower blending ratio of costlier imported coal.

The expenditure towards gas has also decreased due to decrease in the gas consumption in line with the decline in the generation from gas based units. A part of decreased in the expenditure towards gas is also attributable to the lower average price of gas during the financial year 2015-16 as compared to previous year.

The expenditure towards other component of fuel cost i.e. oil and naphtha have also decreased. The decline in the expenditure towards oil is due to lower average price of oil during the financial year 2015-16 as compared to previous year and the decline in the expenditure towards naphtha is mainly due to lesser consumption owing to the lesser naphtha based generation and partly due to lower average price of naphtha during the financial year 2015-16 as compared to previous year.

An increase of ₹ 1,066.40 crore in fuel cost is attributable to new commercial capacity added during the year as well as on commercial capacity added during previous year which was operational for part of the previous year as compared to full year operations during the current year.

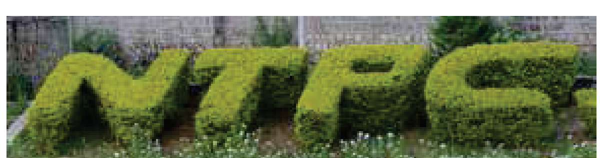
Overall, fuel cost per unit generated decreased to ₹ 1.82 in financial year 2015-16 from ₹ 2.03 in financial year 2014-15.

The power plants of the Company use coal and natural gas as the primary fuels. Oil is used as a secondary fuel for coal-fired plants and naphtha as an alternate fuel in gas-fired plants. Under the tariff norms set by the CERC, your Company is allowed to pass on fuel charges through the tariff, provided the Company meets certain operating parameters.

The detail of fuel supply position is discussed elsewhere in the Director's Report.

2.1.2 Employees benefits expense (Note 24)

Employees' remuneration and benefits expenses include salaries & wages, bonuses, allowances, benefits, contribution to provident & other funds and welfare expenses.



Employees benefits expense have decreased marginally from ₹ 3,620.71 crore in financial year 2014-15 to ₹ 3,609.32 crore in financial year 2015-16.

Of the total increase in employees benefits expense, an increase of ₹ 71.20 crore is attributable to new commercial capacity added during the year as well as on commercial capacity added during previous year which was operational for part of the previous year as compared to full year operations during the current year.

In terms of expenses per unit of generation, it is ₹ 0.15 in financial year 2015-16 as well as financial year 2014-15. These expenses account for approximately 7% of operational expenditure in financial year 2015-16.

2.1.3 Generation, Administration and Other Expenses (Note 26)

Generation, administration and other expenses consist primarily the expenses for repair and maintenance of plant & machinery, buildings, water charges, security, corporate social responsibility, rebate to customers, contribution to water conservation fund, travelling expenses, power charges, insurance, training and recruitment expenses and provisions. These expenses are approximately 11% of operational expenditure in financial year 2015-16. In absolute terms, these expenses increased to ₹ 5,787.39 crore in financial year 2015-16 from ₹ 4,911.28 crore in financial year 2014-15 registering an increase of 18%. In terms of expenses per unit of generation, it is ₹ 0.24 in financial year 2015-16 as compared to ₹ 0.20 in previous financial year. An increase of ₹ 167.63 crore is on account of new commercial capacity added during the year as well as on commercial capacity added during previous year which was operational for part of the previous year as compared to full year operations during the current year.

Repair & maintenance expenses constitute 44% of total generation, administration and other expenses and have increased to ₹ 2,122.19 crore from ₹ 1,984.40 crore in previous year, resulting in an increase of 7%.

During the financial year 2015-16, the Company had made provisions amounting to ₹ 189.12 crore. This includes a provision of ₹ 145.28 crore towards tariff adjustments, ₹ 8.88 crore towards obsolescence in stores, ₹ 6.89 crore towards permanent diminution in the value of investment by the Company in two of its joint venture company i.e. NTPC BHEL Power Projects Private Ltd. ₹ 6.61 crore and BF-NTPC Energy Systems Ltd. ₹ 0.28 crore, ₹ 6.71 crore towards unfinished minimum work programme for oil and gas exploration and ₹ 4.22 crore towards unserviceable capital work-in-progress.

2.2 Finance Costs (Note 25)

The finance costs for the financial year 2015-16 were ₹ 3,230.36 crore in comparison to ₹ 2,743.62 crore in financial year 2014-15. The details of interest and other borrowing costs are tabulated below:

₹ crore

	FY 2015-16	FY 2014-15
Interest on:		
Borrowings	6,611.14	5,605.25
Others	2.26	3.32
Total interest	**6,613.40**	**5,608.57**
Other borrowing costs	59.58	104.16
Total	**6,672.98**	**5,712.73**
Less: Transfers to		
Expenditure during construction period	3,334.55	2,881.28
Development of coal mines	108.07	87.83
Net interest and Other borrowing costs	**3,230.36**	**2,743.62**

Interest on borrowings (including interest during construction) has increased by 18% over last financial year due to increase in long term borrowings (net of repayment) during the year by ₹ 5,814.42 crore. For the financial year 2015-16, the average cost of borrowing has decreased to 7.67% from 8.07% in previous financial year. The decrease in the average cost of borrowing is on account of lower rate of interest on new Rupee borrowings.

For the financial year 2015-16, an amount of ₹ 3,334.55 crore relating to finance costs of projects under construction was capitalized while the corresponding amount for the previous year was ₹ 2,881.28 crore. Thus, finance costs capitalized registered an increase of 16%. In addition, ₹ 108.07 crore has been capitalized in respect of development of coal mines as against ₹ 87.83 crore in previous year.

2.3 Depreciation, amortization and impairment expense (Note 12)

The depreciation and amortization expense charged to the profit and loss account during the financial year 2015-16 was ₹ 5,425.32 crore as compared to ₹ 4,911.65 crore in financial year 2014-15, registering an increase of 10%. This is due to increase in the gross block by ₹ 18,361.85 crore i.e. from ₹ 1,28,477.59 crore in the previous financial year to ₹ 1,46,839.44 crore in the current financial year. The increase in gross block is largely on account of increase in commercial capacity by 1960 MW resulting in additional capitalization on account of commercial declaration of new units as discussed under "Energy Sales". The depreciation on new units capitalized during the year is on pro-rata basis.

Further, depreciation for units declared commercial during financial year 2014-15 aggregating to 695 MW as already discussed under "Energy Sales" has been charged for the entire financial year 2015-16 as against a pro-rata charge during the financial year 2014-15. The impact on depreciation on this account for the financial year 2015-16 is ₹ 511.79 crore.

As per the accounting policy of the Company, depreciation on the assets of the generation of electricity business is charged on straight line method following the rates and methodology notified by the CERC Tariff Regulations in accordance with Schedule II of the Companies Act, 2013 and depreciation on the assets of the coal mining, oil & gas exploration and consultancy business, is charged on straight line method following the rates specified in Schedule II of the Companies Act, 2013.

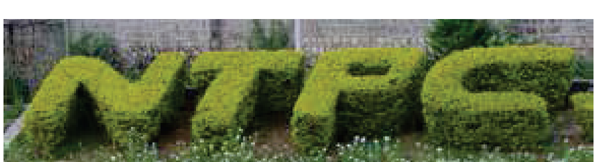
In case of certain assets, the Company has continued to charge higher depreciation based on technical assessment of useful life of those assets.

2.4 Prior Period Items (net)

Certain elements of income and expenditure have been charged to the profit and loss account relating to previous years. For the financial year 2015-16 a net amount of ₹ 196.15 crore was booked as prior period income whereas in the financial year 2014-15 a net amount of ₹ 333.83 crore was accounted as prior period income.

2.5 Regulatory Income/(Expense)

The Institute of Chartered Accountants of India (ICAI) has issued a Guidance Note (GN) on Rate Regulated Activities (RRA) and the same is mandatorily applicable from the financial year 2015-16. Accordingly, your Company has applied the GN in preparation of



financial statements for the financial year 2015-16, considering the provisions of Tariff Regulations issued by the CERC. Accordingly, exchange differences arising from settlement/ translation of monetary item denominated in foreign currency (other than long term) to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory asset/ liability' by credit/debit to 'Regulatory income/expense' during construction period and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. (Note 48)

Accordingly, for the financial year 2015-16, the regulatory income recognized in the Statement of Profit and Loss was ₹ 12.09 crore whereas for the financial year 2014-15, ₹ 103.71 crore was recognized as regulatory expense in the Statement of Profit and Loss.

3 Profit Before Tax

The profit of the Company before tax and exceptional items is tabulated below:

₹ crore

	FY 2015-16	FY 2014-15
Total revenue	**71,696.07**	**75,337.36**
Less:		
Expenditure related to operations	53,189.96	57,365.56
Finance cost	3,230.36	2,743.62
Depreciation, amortization and impairment expenses	5,425.32	4,911.65
Prior period items (net)	(196.15)	(333.83)
Add:		
Regulatory Income/ (Expense)	12.09	(103.71)
Profit Before Tax	**10,058.67**	**10,546.65**

4 Tax Expense

The Company provides for current tax in accordance with provisions of Income Tax Act, 1961 and for deferred tax considering the accounting policy of the Company.

Provision for Current tax

A provision, including tax expense pertaining to Rate Regulated Activities of ₹ (357.39) crore has been made towards current tax for the financial year 2015-16 as against the provision of ₹ 326.44 crore made in financial year 2014-15. During the year, an adjustment towards provision for taxation amounting to ₹ 2,453.48 crore has been made which is mainly on account of favorable appeal orders of Commissioner of Income Tax (Appeals) for the assessment years 2005-06, 2007-08, 2011-12 & 2012-13. Out of this, ₹ 1,693.65 crore has been reduced from sales as it is payable to the beneficiaries as per Regulations, 2004.

Provision for Deferred tax

The deferred tax liability related to the period upto March 31, 2009 is recoverable from customers as and when the same materializes. However, the deferred tax liability/asset for the period 01.04.2009 to 31.03.2014 is to the account of the Company.

For the period commencing from 01.04.2014, CERC Regulations, 2014 provide for grossing up of the return on equity based on effective tax rate for the financial year based on the actual tax paid during the year on the generation income. Deferred asset for deferred tax liability for the year will be reversed in future years when the related deferred tax liability forms a part of current tax. Accordingly, the same has been accounted as "Deferred asset for deferred tax liability".

The deferred tax liability for the year is ₹ 226.88 crore as against the provision of ₹ 888.75 crore made in financial year 2014-15.

Details of tax expense

	FY 2015-16 (₹ Crore)		
	Current tax	Deferred tax	Total
Provision	2,093.51	226.88	2,320.39
Adjust. for earlier years	(2,453.48)	-	(2,453.48)
Tax expense/ (saving) pertaining to RRA	2.58	-	2.58
Adjust. for Deferred asset for deferred tax liability	-	(53.73)	(53.73)
Net prov. as per Statement of P&L	(357.39)	173.15	(184.24)

	FY 2014-15 (₹ Crore)		
	Current tax	Deferred tax	Total
Provision	2,314.22	888.75	3,202.97
Adjust. for earlier years	(1,952.53)	-	(1,952.53)
Tax expense/ (saving) pertaining to RRA	(35.25)	-	(35.25)
Adjust. for Deferred asset for deferred tax liability	-	(959.40)	(959.40)
Net prov. as per Statement of P&L	326.44	(70.65)	255.79

Net provision of tax for the financial year 2015-16 was ₹ (184.24) crore in comparison to ₹ 255.79 crore in the financial year 2014-15.

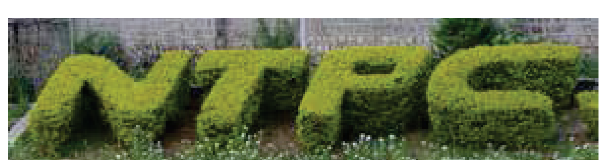
5 Profit After Tax

The profit of the Company after tax is tabulated below:

₹ crore

	FY 2015-16	FY 2014-15
Profit Before Tax	**10,058.67**	**10,546.65**
Less:- Tax expense	(184.24)	255.79
Profit After Tax	10,242.91	10290.86

The profit after tax has declined by 0.47%.



6 **Segment-wise Performance**

For the purpose of compiling segment-wise results, the business of the Company is segregated into 'Generation' and 'Other Business'. The Company's principal business is generation and sale of bulk power. Other business includes providing consultancy, project management and supervision, oil and gas exploration and coal mining.

The profit before unallocated corporate interest and other income & unallocated corporate expenses, interest and finance charges, in the generation business for the financial year 2015-16 was ₹ 13,640.47 crore as against ₹ 12,554.39 crore for financial year 2014-15. The loss before unallocated corporate interest and other income & unallocated corporate expenses, interest and finance charges from 'Other Business' comprising of consultancy, coal mining and oil exploration was ₹ 16.43 crore for financial year 2015-16 as against a loss of ₹ 4.45 crore in the previous financial year. (Note 40)

B. Financial Position

The items of the Balance Sheet are as discussed under:

1 **Net Worth**

The net worth of the Company at the end of financial year 2015-16 increased to ₹ 88,782.00 crore from ₹ 81,657.35 crore in the previous year, an increase of 9%. Major reason for the same are tabulated below:

	Net Worth (₹ crore)	BVPS (₹)
Opening Balance as on 01.04.2015	81,657.35	99.03
Add: Profit/ EPS for the year	10,242.91	12.42
Add: Other adjustments to Reserves	202.23	0.25
Less: Dividend & dividend tax*	3,320.49	4.03
Balance as on 31.03.2016	88,782.00	107.67

*includes proposed dividend & tax thereon

The increase in net worth resulted in increase in Book Value per Share (BVPS) to ₹ 107.67 from ₹ 99.03 as at the end of previous year. During the financial year 2015-16, Government of India (GoI) disinvested its 5% stake in the company through Offer for Sale route through Stock Exchange Mechanism. After the disinvestment, GoI's stake came down from 74.96% to 69.96%.

2 **Deferred Revenue**

Deferred revenue (Note 4) consists of two items detailed as under:

₹ crore

Deferred revenue on account of	As at March 31	
	2016	2015
Advance Against Depreciation (AAD)	279.94	409.20
Income from foreign currency fluctuation	1,666.68	984.95
Total	**1,946.62**	**1,394.15**

Advance Against Depreciation (AAD) was an element of tariff provided under the CERC Tariff Regulations for the period 2001-04 and 2004-09 to facilitate debt servicing by the generators since it was considered that depreciation recovered in the tariff, considering a useful life of 25 years, is not adequate for debt servicing. Though this amount is not repayable to the beneficiaries, keeping in view the matching principle, and in line with the opinion of the Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), this was treated as deferred revenue to the extent depreciation chargeable in the accounts is considered to be higher than the depreciation recoverable in tariff in future years. Accordingly, the amount of AAD considered as deferred revenue in earlier years is included in sales, to the extent depreciation recovered in tariff during the year is lower than corresponding depreciation charged in accounts. Thus, an amount of ₹ 129.26 crore (previous year ₹ 75.03 crore) has been recognized as sales during the year ended March 31, 2016.

Foreign exchange rate variation (FERV) on foreign currency loans and interest thereon is recoverable from/payable to the customers in line with the Tariff Regulations. Keeping in view the opinion of the EAC of ICAI, the Company is recognizing deferred foreign currency fluctuation asset by corresponding credit to deferred income from foreign currency fluctuation in respect of the FERV on foreign currency loans adjusted in the cost of fixed assets, which is recoverable from the customers in future years as per accounting policy. This amount will be recognized as revenue corresponding to the depreciation charge in future years. The amount does not constitute a liability to be discharged in future periods and hence, it has been disclosed separately from shareholder's funds and liabilities.

3 **Non-Current and Current Liabilities**

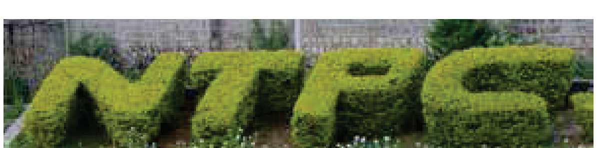
Details of non-current and current liabilities are discussed below:

a. **Borrowings:**

Total borrowings as at 31.03.2016 were ₹ 91,809.76 crore in comparison to ₹ 85,995.34 crore as at 31.03.2015. Current maturities out of long term borrowings have been shown under current liabilities. Details of the total borrowings are as under:

₹ crore

	As at March 31	
	2016	2015
Long term borrowings in non-current liabilities (Note 5)	85,083.26	78,532.33
Current maturities of long term borrowings included in other current liabilities (Note 10)	6,726.50	7,463.01
Total borrowings	**91,809.76**	**85,995.34**



A summary of the borrowings outstanding is given below:

₹ crore

	Non-current liabilities		Other current liabilities		Total borrowings		% Change
	2016	2015	2016	2015	2016	2015	
Secured							
Domestic Bonds*	24,844.83	23,017.83	628.00	600.00	25,472.83	23,617.83	8%
Foreign currency term loans/ Notes	-	-	-	-	-	-	-
Others	1.45	-	0.48	-	1.93	-	-
Sub-total	**24,846.28**	**23,017.83**	**628.48**	**600.00**	**25,474.76**	**23,617.83**	**8%**
Unsecured							
Foreign currency term loans/ Notes	26,375.53	22,691.87	1,979.06	2,738.15	28,354.59	25,430.02	12%
Rupee term loans	33,781.15	32,754.50	4,108.13	4,124.86	37,889.28	36,879.36	3%
Others	80.30	68.13	10.83	-	91.13	68.13	34%
Sub-total	**60,236.98**	**55,514.50**	**6,098.02**	**6,863.01**	**66,335.00**	**62,377.51**	**6%**
Total	**85,083.26**	**78,532.33**	**6,726.50**	**7,463.01**	**91,809.76**	**85,995.34**	**7%**

*includes ₹655 crore for which security was created during financial year 2016-17.

As on 31.03.2016, the foreign currency loan basket comprises of loans denominated in US Dollar, Japanese Yen and Euro which contributed about 84%, 10% and 6% respectively of the total foreign currency loans.

Over the last financial year, total borrowings have increased by 7%. Debt amounting to ₹ 11,786.03 crore was raised during the year 2015-16. The amount raised through term loans, bonds and foreign currency borrowings is used for capital expenditure, refinancing and recoupment of capital expenditure.

Details in respect of proceeds and repayment of borrowings for the year 2015-16 are as under:

₹ crore

Source	Debt raised	Repayment	Net
Term loan	5,150.00	4,140.08	1,009.92
Domestic bonds	2,455.00	600.00	1,855.00
Foreign currency debts	4,147.74	2,949.09	1,198.65
Others (finance lease)	33.29	8.36	24.93
Total	11,786.03	7,697.53	4,088.50
FERV on foreign currency borrowings			1,725.92
Total			**5,814.42**

Term loans: Banks and Domestic financial institutions continued to support the capex program of the Company by extending term loans for financing the on-going capacity expansion plans. During the financial year 2015-16, agreement for a term loan of ₹ 2,000 crore was entered into with ICICI Bank Ltd. An amount of ₹ 5,150 crore was drawn from domestic banks & financial institutions during the year and an amount of ₹ 4,140.09 crore was repaid during the year. The cumulative amount of domestic loans tied up till 31st March 2016 is ₹ 79,314.35 crore (excluding undrawn loans short closed as per the loan agreements). The cumulative drawl up to 31st March 2016 was ₹ 62,154.35 crore.

Domestic bonds: Bonds amounting to ₹ 2,455 crore were issued during financial year 2015-16.The details are as follows:

Series No.	Type of Issue	Tenure (in Years)	Coupon Rate	Amount (in ₹ Crore)
55	Tax Free, Private	10	7.15%	300
56	Tax Free, Public	10,15 & 20	7.11%,7.28% & 7.37% for non-retail and 7.36%,7.53% & 7.62% for retail category	700
57	Taxable,Private	10	8.19%	500
58	Taxable,Private	5	8.18%	300
59	Taxable,Private	5	8.33%	655

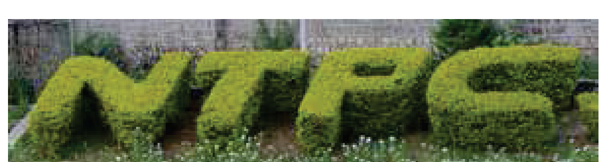
During the financial year 2015-16, Bonds amounting to ₹ 600 crore were redeemed. The amount of Bonds outstanding as on 31st March 2016 is ₹ 25,472.83 crore.

Foreign currency debts: During the financial year, the Company raised USD 500 million through external commercial borrowings by issue of Senior Fixed Rate Notes (Notes) under the USD 4 billion MTN programme.

Notes have a coupon of 4.25% payable semi-annually. This was the lowest coupon ever achieved by the company for its International Bonds. The bonds are due for bullet repayment in February 2026. An amount of ₹ 3,434.04 crore was received as proceeds against the issuance of these Notes. As against this, an amount of ₹ 2,129.06 crore was utilised to part finance the capital expenditure incurred on various ongoing power projects of the company till 31st March 2016.

Under the existing loan facilities available from JBIC and KfW, during the year, the company has drawn and utilised ₹ 713.70 crore towards capital expenditure incurred on various projects.

In all, the company has drawn during the year ₹ 4,147.74 crore from foreign currency loans and repaid foreign currency debt amounting ₹ 2,949.09 crore. The rupee equivalent of foreign borrowings outstanding as on 31st March 2016 is ₹ 28,354.59 crore.



As at 31.03.2016, the derivative contract (Currency Interest Rate Swap) outstanding stood at JPY 10.69 crore and principal swap stood at EURO 0.80 crore equivalent to ₹ 6.38 crore & ₹ 60.74 crore respectively.

The Company continues to enjoy highest credit ratings for its bonds programme and borrowings from banks, while Company's International Ratings are at par with sovereign ratings as detailed hereunder:

Credit Rating Agency	Rating	Remarks
Domestic		
CRISIL	CRISIL AAA	Highest ratings
ICRA	ICRA AAA (Stable)	
CARE	CARE AAA	
International		
S&P	BBB-/stable	Equivalent to sovereign ratings
Fitch	BBB-/ stable	

The debt to equity ratio at the end of financial year 2015-16 of the Company decreased to 1.03 from 1.05 at the end of the previous financial year. The Debt Service Coverage Ratio (DSCR) and Interest Service Coverage Ratio (ISCR) for financial year 2015-16 are 1.72 and 5.85 respectively.

Formula used for computation of coverage ratios DSCR = Earnings before Interest, Depreciation, Tax and Exceptional items/ (Interest net of transferred to expenditure during construction + Principal repayment) and ISCR = Earnings before Interest, Depreciation, Tax and Exceptional items/ (Interest net of transferred to expenditure during construction).

The maturity profile of the borrowings by the Company is as under:

₹ crore

	Domestic Borrowings	Foreign Borrowings	Total
Within 1 year	4,747.44	1,979.06	6,726.50
2 – 3 years	10,626.73	3,624.96	14,251.69
4 – 5 years	9,648.03	4,576.31	14,224.34
6 – 10 years	30,644.41	17,181.85	47,826.26
Beyond 10 years	7,788.56	992.41	8,780.97
Total	**63,455.17**	**28,354.59**	**91,809.76**

b. Deferred Tax Liabilities (net):

Deferred tax liabilities (net) (Note 6) have increased from ₹ 979.07 crore as at 31.03.2015 to ₹ 1,152.21 crore as at 31.03.2016. CERC Regulations, 2014 provide for recovery of deferred tax liability as on 31st March 2009 from the beneficiaries. Accordingly, deferred tax liability as on 31st March 2009 is recoverable on materialisation from the beneficiaries. For the period commencing from 1st April 2014, Regulations, 2014 provide for grossing up of the return on equity based on effective tax rate for the financial year based on the actual tax paid during the year on the generation income. Deferred asset for deferred tax liability for the year will be reversed in future years when the related deferred tax liability forms part of current tax. The net increase during the year in the deferred tax liability of ₹ 173.14 crore (previous year decrease of ₹ 72.54 crore) has been debited to the Statement of Profit and Loss.

c. Other Long Term Liabilities:

Other long term liabilities (Note 7) primarily consist of liabilities for capital expenditure and others. Liabilities for capital expenditure has increased from ₹ 2,617.86 crore as at 31.03.2015 to ₹ 3,015.42 crore as at 31.03.2016 mainly due to new projects going under construction. Liabilities for capital expenditure which are due for payment within 12 months from the reporting date have been classified under 'Other current liabilities' (Note 10).

d. Long Term Provisions:

Long term provisions (Note 8) consist of amounts provided towards employees benefits as per actuarial valuation which are expected to be settled beyond a period of 12 months from the Balance Sheet date. Long term provision as at 31.03.2016 was ₹ 436.41 crore as compared to ₹ 1,115.71 crore as at 31.03.2015.The same has decreased due to discharge of provision towards PRMS to the trust created during the year and funding of the same by the company.

e. Regulatory Liabilities:

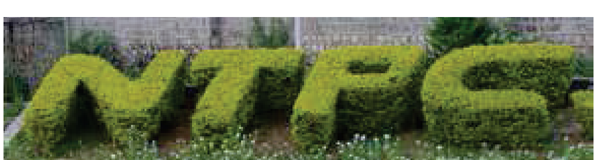
Guidance Note (GN) on Rate Regulated Activities issued by the ICAI is mandatorily applicable from the financial year 2015-16.

In view of the same, exchange differences arising from settlement/translation of monetary item denominated in foreign currency (other than long term) to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory asset/liability' by credit/debit to 'Regulatory income/expense' during construction period and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Such exchange differences were hitherto accounted as 'Deferred foreign currency fluctuation asset/ liability'.

The regulated assets/liability (Note 8A) recognized in the books to be recovered from or payable to beneficiaries in future periods are as follows:

₹ crore

Particulars	Regulated Liability
A. Opening balance as on 01.04.2015	307.74
B. Addition during the year	(8.45)
C. Amount collected/refunded during the year	3.64
D.Regulatory income/(expense) recognized in the Statement of Profit & Loss (B-C)	12.09
E. Closing balance as on 31.03.2016 (A-D)	295.65



f. Current Liabilities:

The current liabilities as at 31.03.2016 were ₹ 33,846.39 crore as against ₹ 30,519.52 crore as at the end of previous year. The break-up of current liabilities is as under:

₹ crore

	As at March 31		Y-o-Y Change	% Change
	2016	2015		
Short-Term Borrowings (Note-5A)	1,299.50	-	1,299.50	-
Trade payables (Note-9)	5,502.86	5,953.15	-450.29	-8%
Other current liabilities (Note-10)	18,384.41	16,807.62	1,576.79	9%
Short term provision (Note-11)	8,659.62	7,758.75	900.87	12%
Total	**33,846.39**	**30,519.52**	**3,326.87**	**11%**

In order to finance the mismatches in the short term fund requirement, short term borrowings (Note-5A) in the form of unsecured cash credit was resorted to by the Company. The unsecured cash credit utilization as on 31st March 2016 was ₹ 1,299.50 crore with State Bank of India.

The trade payables mainly comprise amount payable towards supply of goods & services, deposits & retention money from contractors. Trade payable has reduced mainly on account of discharge of liabilities of the fuel suppliers.

Other current liabilities mainly comprise current maturities of long term borrowings, payable towards capital expenditure and other statutory liabilities. The details of other current liabilities are as under:

₹ crore

	As at March 31	
	2016	2015
Other current liabilities	18,384.41	16,807.62
Less: Current maturities of long term borrowings and Finance lease obligations	6,726.50	7,463.01
Other current liabilities (net)	**11,657.91**	**9,344.61**

Other current liabilities (net) include amount payable for capital expenditure, interest accrued but not due on borrowings, book overdraft, advances from customers and others, deposits from contractors, gratuity obligations, payables to employees, unpaid dividends etc. Other current liabilities (net) has increased mainly due to increase in payables for capital expenditure which has increased from ₹ 6,421.73 crore as on 31.03.2015 to ₹ 7,926.23 crore as on 31.03.2016 and also due to advances from customers and others amounting to ₹ 1,240.54 crore as on 31.03.2016 as compared to ₹ 461.70 crore as on 31.03.2015.

Short-term provisions mainly consist of provisions for employee benefits, provision for proposed dividend and taxes thereon, provision for obligations incidental to land acquisition, provision for tariff adjustment and some other provisions. As at 31.03.2016, Company had outstanding short term provisions of ₹ 8,659.62 crore as against ₹ 7,758.75 crore as at 31.03.2015.

The increase in short-term provisions is mainly due to increase in Provision for obligations incidental to land acquisition from ₹ 3,098.72 as on 31.03.2015 to ₹ 3,736.83 crore as on 31.03.2016. The provision for proposed final dividend remained unchanged at ₹ 1,442.96 crore as on 31.03.2016 as well as on 31.03.2015. However, provision for current tax of ₹ 151.30 crore has been made as on 31.03.2016, the same was NIL as on 31.03.2015.

As a prudent and conservative policy, provision for tariff adjustment has been created in the books of accounts to the extent of the impact of the challenged issues of the APTEL judgement and the interest thereon, as the appeal filed by the CERC with the Hon'ble Supreme Court is still pending for disposal and the CERC tariff orders are subject to the outcome of these appeals.

Accordingly, provision of ₹ 145.28 crore (previous year ₹ 148.10 crore) has been made during the year and in respect of some of the stations, an amount of ₹ 154.51 crore (previous year ₹ 180.16 crore) has been written back.

Other provisions include ₹65.35 crore (previous year ₹ 58.64 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to block AA-ONN-2003/2, ₹ 496.44 crore (previous year ₹ 440.35 crore) towards provision for litigation cases and ₹ 1.87 crore (previous year ₹ 6.03 crore) towards provision for shortage in fixed assets pending investigation.

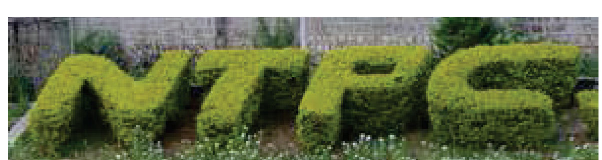
4 Fixed Assets

Fixed assets of the Company are detailed as under:

₹ crore

	As at March 31		% Change
	2016	2015	
Tangible assets	146,392.06	128,061.50	14%
Intangible assets	447.38	416.09	8%
Total gross block	**146,839.44**	**128,477.59**	**14%**
Total net block	**91,629.81**	**78,849.07**	**16%**
Capital work- in - progress and Intangible assets under development (CWIP)	66,433.65	56,493.49	18%
Capital advances (Note 15)	7,183.32	7,720.69	-7%
Total CWIP & capital advances	**73,616.97**	**64,214.18**	**15%**

During the year, gross block of the Company increased by ₹ 18,361.85 crore over the previous year i.e. 14%. This was mainly on account of declaration of commercial operation of 1960 MW during 2015-16 and also capitalisation of some other assets.



Correspondingly, net block has increased by 16%. Capital work in progress and capital advances (shown as Long-term loans & advances in Note 15 of Balance Sheet) taken together also increased by ₹ 9,402.79 crore registering an increase of 15% over the last year.

₹ crore

	31.03.16	31.03.15	31.03.14	31.03.13	31.03.12
Total gross block	146,839.44	128,477.59	116,992.06	103,245.70	81,830.26
Increase in gross block over previous year	18,361.85	11,485.53	13,746.36	21,415.44	9,075.11
Total CWIP & capital advances	73,616.97	64,214.18	53,533.65	44,036.77	44,569.27
Increase in CWIP & capital advances over previous year	9,402.79	10,680.53	9,496.88	(532.50)	6,298.64
Total increase in gross block & CWIP	**27,764.64**	**22,166.06**	**23,243.24**	**20,882.94**	**15,373.75**

If we analyse trend, combined gross block & CWIP has increased significantly in last 5 years indicating higher capex. Over last 5 years, total CWIP & capital advances have steadily grown at CAGR of 14%. Similarly, total gross block has also grown at a CAGR of 15% over last 5 years. The gross block is expected to grow significantly higher in near future, as the capacity awarded through bulk tender is expected to be operational in next 2 to 3 years.

5 Investments

Investments have been bifurcated into non-current investments and current investments and discussed accordingly:

₹ crore

	As at March 31		% Change
	2016	2015	
Non-current investments (Note 14)	7,949.52	7,154.07	-11%
Current investments (Note 16)	343.63	1,878.06	-82%
Total	**8,293.15**	**9,032.13**	**-8%**

Investments as at year end mainly consist of equity participation in subsidiary and joint venture companies. Broadly the break-up of investments is as follows:

₹ crore

	As at March 31	
	2016	2015
Bonds issued under One Time Settlement Scheme (OTSS Bonds)	-	1,651.46
Investment in liquid mutual funds	343.63	226.60
Investment in equity instruments	12.00	12.00
Investment in Joint Ventures	6,007.09	5,299.38
Investment in Subsidiaries	1,930.43	1,842.69
Total investments	**8,293.15**	**9,032.13**

Over the year, the investments decreased by about 8% mainly due to redemption of OTSS bonds. During the year 2015-16, remaining balance of OTSS bonds amounting to ₹ 1,651.46 crore were redeemed as per scheduled redemption. Your company also parked an amount of ₹ 343.63 crore in short term liquid mutual funds out of fly ash utilization reserve fund. The Company invested (net) ₹ 707.71 crore in following joint venture companies during the year:

₹ crore

Name of JV Companies	Amount
NTPC-Tamil Nadu Energy Company Ltd.	40.00
Aravali Power Company Private Ltd.	53.15
Meja Urja Nigam Private Ltd.	300.09
Nabinagar Power Generating Company Private Ltd.	252.17
Energy Efficiency Services Ltd.	25.00
Trincomalee Power Company Ltd.	5.94
Bangladesh-India Friendship Power Co. Pvt. Ltd.	38.25
Total Investment	714.60
Less: Provision for diminution in value in	
NTPC BHEL Power Projects Private Ltd.	(6.61)
BF-NTPC Energy Systems Ltd.	(0.28)
Net Investment	**707.71**

The Company also invested (net) ₹ 87.74 crore in the following subsidiary companies:

₹ crore

Name of subsidiary company	Amount
Kanti Bijlee Utpadan Nigam Ltd.	71.02
Bhartiya Rail Bijlee Company Ltd.	15.64
Patratu Vidyut Utpadan Nigam Limited	1.08
Total investment	**87.74**

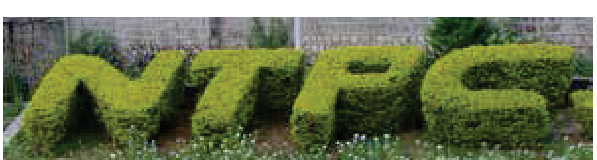
6 Long Term Loans and Advances

Long term loans and advances (Note 15) include those loans and advances which are expected to be realized after a period of 12 months from Balance Sheet date. Total long term loans and advances as at 31.03.2016 were ₹ 16,980.19 crore as against ₹ 15,527.89 crore as at 31.03.2015. Long term loans and advances consist of advances for capital expenditure and other advances to contractors, security deposits and loans to employees. Break-up of long term loans and advances is as under:

₹ crore

	As at March 31	
	2016	2015
Total Long term loans & advances	16,980.19	15,527.89
Less: capital advances	7,183.32	7,720.69
Other long term loans & advances	**9,796.87**	**7,807.20**

Capital advances have already been discussed along with capital work in progress under the head fixed assets. Other long term loans and advances have gone up from ₹ 7,807.20 crore to ₹ 9,796.87 crore an increase of ₹ 1,989.67 crore. The increase is mainly due to increase in Advance income tax net of provision for income tax which has gone up from ₹ 4,813.48 crore to ₹ 6,826.36 crore i.e. by ₹ 2,012.88 crore.



7 Other Non-Current Assets

As per the opinion of the EAC of the ICAI, exchange differences on account of translation of foreign currency borrowings which are recoverable from the beneficiaries in subsequent periods as per CERC tariff regulations are accounted as 'Deferred foreign currency fluctuation asset'. Accordingly, an amount of ₹ 1,368.79 crore has been accounted under this head upto 31.03.2016 (Previous year ₹ 1,280.49 crore) (Note 15A). Deferred foreign currency fluctuation asset has increased mainly due to appreciation of US Dollar, Japanese Yen and Euro against Indian Rupee.

Other non-current assets also include claims recoverable from Government of India amounting to ₹ 469.73 crore as on 31.03.2016 (previous year ₹ 466.28 crore) in respect of Loharinagpala Hydro Power Project which has been discontinued on the advice of the Ministry of Power, GoI. This includes an amount of ₹ 185.41 crore (previous year ₹ 214.34 crore) in respect of arbitration award challenged by the Company before High Court. In the event court grants relief to the Company, the amount would be adjusted against 'short term provision- others' (Note 11). Management expects that the total cost incurred, anticipated expenditure on the safety and stabilisation measures, other recurring site expenses and interest costs as well as claims of contractors/ vendors for various packages for this project will be compensated in full by the GoI.

8 Current Assets

The current assets as at 31.03.2016 and 31.03.2015 and the changes therein are as follows:

₹ crore

	As at March 31		Y o Y Change	% Change
Current Assets	2016	2015		
Current investments (Note 16)	343.63	1,878.06	(1,534.43)	-82%
Inventories (Note 17)	7,192.53	7,453.00	(260.47)	-3%
Trade receivables (Note 18)	7,843.99	7,604.37	239.62	3%
Cash & bank balances (Note 19)	4,406.36	12,878.81	(8,472.45)	-66%
Short term loans & advances (Note 20)	2,249.26	2,407.59	(158.33)	-7%
Other current assets (Note 21)	7,710.54	5,141.60	2568.94	50%
Total current assets	**29,746.31**	**37,363.43**	**(7,617.12)**	**-20%**

Major reason for decrease in current assets is reduction in cash and bank balances by ₹ 8,472.45 crore. The same was due to utilization of unutilized portion of bonus debentures of ₹ 4,656.83 crore which formed part of cash and bank balances of ₹ 12,878.81 crore as at 31.03.2015.

Inventories

Inventories as at 31.03.2016 were ₹ 7,192.53 crore (being 24% of current assets) as against ₹ 7,453.00 crore as at 31.03.2015. Inventories mainly comprise stores and spares and coal which are maintained for operating plants. Stores and spares were ₹ 2,775.69 crore as against ₹ 2,631.31 crore in previous year end. Value of coal inventory decreased from ₹ 3,827.37 crore as at 31.03.2015 to ₹ 3,490.12 crore as at 31.03.2016 due to lesser proportion of imported coal stock in total coal stock at our power plants.

Trade Receivables

Trade receivables (net) as at 31.03.2016 are ₹ 7,843.99 crore as against ₹ 7,604.37 crore as at 31.03.2015. Trade receivables have increased by 3% over the year, however on number of sales days basis, the same have gone up from 38 days to 40 days. The increase in debtors' balances is mainly due to outstandings of some discoms. Out of ₹ 7,843.99 crore only an amount of ₹ 20.97 crore was outstanding for more than 6 months. Considering the financial health of our customers and industry standards, average 40 days debtors are at acceptable levels. The company has collected 100% dues for 13th year in succession.

Keeping in view the requirements of Companies Act, 2013, unbilled revenues are shown under 'Other current assets' in Note 21 of balance sheet.

Short term loans and advances

Short term loans and advances as at 31.03.2016 comprise of advances to contractors and suppliers including materials issued on loan, short term advances to employees, security deposits, loans and advances to subsidiary and joint venture companies etc. Short term loans and advances have decreased from ₹ 2,407.59 crore as on 31.03.2015 to ₹ 2,249.26 crore as on 31.03.2016 mainly on account of reduction in deposits with sales/commercial tax authorities and reduction in loan to DVB in settlement of dues as per OTSS Bonds Scheme of GoI.

Other Current Assets

Other current assets excluding unbilled revenue are as under:

₹ crore

	As at March 31	
	2016	2015
Other current assets (as per Note 21)	7,710.54	5,141.60
Less: Unbilled revenue	4,953.50	2,502.33
Net Other current assets	**2,757.04**	**2,639.27**

Other current assets include interest accrued on OTSS Bonds, term deposits with banks, other deposits and claims recoverable. Claims recoverable has increased from ₹ 2,074.46 crore as on 31.03.2015 to ₹ 2,601.14 crore as on 31.03.2016.

Claims recoverable include claims against railways ₹ 1946.68 crore (previous year ₹ 1,723.54 crore) which are mainly towards diverted out coal wagons.

Unbilled revenue consists of items viz. (i) sales for the month of March which is billed in April and (ii) other credits which are to be passed on to beneficiaries. For the year 2015-16, the credits which are to be passed on to beneficiaries have already been accounted for in sales. Unbilled revenue of ₹ 4,953.50 crore (previous year ₹ 2,502.33 crore) is net of credits to be passed to beneficiaries at the time of billing and includes ₹ 6,579.06 crore (previous year ₹ 6,384.00 crore) billed to the beneficiaries after 31st March for energy sales.

Cash flows

Cash, cash equivalents and cash flows on various activities is given below:

₹ crore

	FY 2015-16	FY 2014-15
Opening cash & cash equivalents	13,105.41	15,311.37
Net cash from operating activities	14,503.53	14,234.70
Net cash used in investing activities	(18,422.65)	(14,562.60)
Net cash flow from financing activities	(4,436.38)	(1,878.08)
Exchange difference arising from translation of foreign currency cash and cash equivalents	0.08	0.02
Change in cash and cash equivalents	(8,355.42)	(2,205.96)
Closing cash & cash equivalents	**4,749.99**	**13,105.41**

Net cash generated from operating activities was ₹ 14,503.53 crore during the year 2015-16 as compared to ₹ 14,234.70 crore in the previous year.

Net cash used in investing activities was ₹ 18,422.65 crore in financial year 2015-16 as compared to ₹ 14,562.60 crore in the previous year. Cash outflows on investing activities arise from expenditure on setting up power projects, investment of surplus cash in various securities, investments in joint ventures & subsidiaries and tax outflow on income from investing activities. Cash inflows arise from interest from banks and dividend income from joint ventures and subsidiaries and mutual funds. Cash invested on purchase of fixed assets increased to ₹ 20,561.82 crore in financial year 2015-16 from ₹ 17,128.27 crore in previous year. During the year, there was purchase and sale of non-trade investments and redemption of OTSS Bonds. Cash flows from sale of investment (net of purchase of investment) was ₹ 1,651.46 crore.

During the year, the Company used net ₹ 4,436.38 crore of cash for servicing financing activities as against ₹ 1,878.08 crore in the previous year. During the financial year 2015-16, the Company had an inflow of ₹ 11,786.03 crore from long term borrowings as against ₹ 23,360.37 crore in the previous year including proceeds of bonus debentures. Cash used for repayment of long term borrowings during the financial year 2015-16 was ₹ 7,697.53 crore as against ₹ 4,751.15 crore repaid in the previous year. Cash used for paying dividend and the tax thereon during 2015-16 was ₹ 3,324.56 crore as compared to ₹ 14,796.83 crore in the previous year which included bonus debentures amounting to ₹ 10,306.83 crore and dividend tax thereon of ₹ 2,060.76 crore.

FINANCIAL SUMMARY OF SUBSIDIARY COMPANIES

Your Company has five subsidiary companies as at 31.03.2016 out of which two are wholly owned.

A summary of the financial performance of the subsidiary companies during the financial year 2015-16 based on their audited results is given below:

₹ crore

	Company	NTPC's investment in equity	Total Income	Profit After Tax/ (Loss)
1	NTPC Electric Supply Company Ltd.!	0.08	1.40	0.91
2	NTPC Vidyut Vyapar Nigam Limited	20.00	4,122.62	50.32
3	Kanti Bijlee Utpadan Nigam Limited$	721.02	377.63	(58.20)
4	Bhartiya Rail Bijlee Company Limited^	1,188.25	0.0003	(0.0255)
5	Patratu Vidyut Utpadan Nigam Limited*	1.08	Nil	(0.0067)
	Total	**1,930.43**	**4,501.65**	**(7.0022)**

! The Board of Directors of NESCL, in its Board Meeting held on 10th December 2015, approved the proposal of withdrawal from KINESCO and approved the Termination Agreement. Thereafter, the Board of KINESCO, in its Board Meeting held on 15th December 2015, also approved the withdrawal of NESCL from KINESCO and approved the Termination Agreement. Later on 15th December 2015, NESCL, KINFRA, KEPIP and KINESCO executed and signed the Termination Agreement. The shares held by NESCL had been purchased by KINFRA on 17th December 2015 and the amount was paid to NESCL. Thus, NESCL ceased to be the joint venture partner of KINESCO.

$ includes share application money pending allotment amounting to ₹31.04 crore.

^ includes share application money pending allotment amounting to ₹15.64 crore.

* includes share application money pending allotment amounting to ₹1.00 crore.

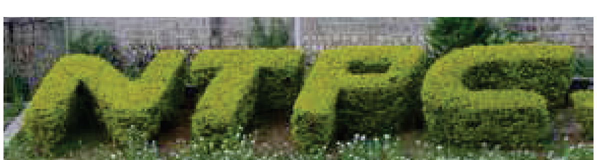
The detailed financial statements and management discussion and analysis of the subsidiaries are included elsewhere in this Annual Report.

FINANCIAL SUMMARY OF JOINT VENTURE COMPANIES

Your Company has interests in the following joint venture companies. Proportion of ownership and financial performance of the companies for the financial year 2015-16 from them based on results are given below:

₹ crore

Sl.	Company	NTPC's interest (Ex. Share application Money) (%)	NTPC's investment in equity	Total Income	Profit After Tax/ (Loss)
A.	Joint Venture Companies incorporated in India				
1	Utility Powertech Ltd.	50	1.00 @	655.74	20.20
2	NTPC Alstom Power Services Pvt. Ltd.*	50	3.00	120.74	2.36
3	NTPC Tamil Nadu Energy Company Ltd.	50	1,365.61!	2,658.34	(274.83)



Sl.	Company	NTPC's interest (Ex. Share application Money) (%)	NTPC's investment in equity	Total Income	Profit After Tax/ (Loss)
4	Ratnagiri Gas And Power Private Ltd.*	25.51	974.30	1,137.81	(1,082.83)
5	NTPC-SAIL Power Company Private Ltd.	50	490.25	1,715.80	246.84
6	Aravali Power Company Private Ltd.	50	1,332.00	4,288.74	701.07
7	Meja Urja Nigam Private Ltd.	50	841.44	-	(0.05)
8	NTPC BHEL Power Projects Private Ltd.*	50	50.00	802.71	(45.86)
9	BF-NTPC Energy Systems Ltd.	49	5.88	0.05	(0.41)
10	Nabinagar Power Generating Company Private Ltd.	50	763.30#	-	-
11	National High Power Test Laboratory Private Ltd.	21.63	23.90	-	-
12	Transformers & Electricals Kerala Ltd.*	44.60	31.34	154.49	(9.86)
13	Energy Efficiency Services Ltd.*	28.80	47.50	714.44	26.74
14	CIL NTPC Urja Private Ltd.*	50	0.08	0.0001	(0.0039)
15	Anushakti Vidhyut Nigam Ltd.*	49	0.05	0.0025	(0.0020)
B.	**Joint Venture Companies incorporated outside India**				
16	Trincomalee Power Company Limited, Srilanka*	50	15.20	0.89	0.57
17	Bangladesh –India Friendship Power Company Private Ltd.*	50	69.68	-	-
C.	**Joint Venture Companies under exit & not considered for consolidation**				
18	NTPC-SCCL Global Venture Pvt. Ltd.	50	0.05	-	-
19	National Power Exchange Ltd.	16.67	2.19	-	-
20	International Coal Ventures Private Ltd.	0.13	1.40	-	-
21	Pan Asian Renewables Private Ltd.	50	1.50	-	-
	Total		**6,019.67**	**12,249.75**	**(416.07)**

*Financial statements are un-audited
@excluding ₹1 crore equity issued as fully paid bonus shares
! including share application money pending allotment of ₹20 crore
including share application money pending allotment of ₹50 crore

As may be seen, out of the 21 joint venture companies, 9 companies listed at Sl. No. 1 to 6, 8, 12 and 13 are operational with 5 of them registered an aggregate profit of ₹ 997.21 crore and balance 4 companies have suffered a loss of ₹ 1,413.38 crore in the current financial year.

Details about business of the joint venture companies are available elsewhere in the Annual Report.

Consolidated financial statements of NTPC Ltd.

The consolidated financial statements have been prepared in accordance with Accounting Standards (AS)-21 - 'Consolidated Financial Statements' and Accounting Standards (AS)-27 -'Financial reporting of Interests in Joint Ventures' and are included in this Annual report.

A brief summary of the results on a consolidated basis is given below:

₹ crore

	FY 2015-16	FY 2014-15
Total revenue	79,939.56	82,675.40
Profit before Tax	10,103.54	10,456.21
Profit after Tax	10,162.43	9,992.37
Profit after Tax [less Share of Profit/(Loss)-Minority interest]	10,182.81	9,986.34
Net Cash from operating activities	15,410.61	14,888.53

CAUTIONARY STATEMENT

Statements in the Management Discussion and Analysis and in the Directors' Report, describing the Company's objectives, projections and estimates, contain words or phrases such as "will", "aim", "believe", "expect", "intend", "estimate", "plan", "objective", "contemplate", "project" and similar expressions or variations of such expressions, are "forward-looking" and progressive within the meaning of applicable laws and regulations. Actual results may vary materially from those expressed or implied by the forward looking statements due to risks or uncertainties associated therewith depending upon economic conditions, government policies and other incidental factors. Readers are cautioned not to place undue reliance on these forward-looking statements.

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director
DIN :00307037

Place: New Delhi
Date: 3rd August, 2016