Annexure-III

MANAGEMENT DISCUSSION AND ANALYSIS REPORT

1. INDUSTRY STRUCTURE AND DEVELOPMENTS

India is one of the fastest developing economies in the world. The existence and development of adequate infrastructure is essential for sustained growth of the Indian economy. Power is one of the most critical infrastructural component for the economic growth and welfare of nation. India's power sector is one of the most diversified in the world. Power sector comprises generation, transmission and distribution utilities. Sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar and agricultural and domestic waste.

Electricity demand in the country has increased rapidly over the years and is expected to rise further in future. The Government of India's focus on attaining 'Power for all' has accelerated the capacity addition programme in the country to meet the increasing demand for electricity by adding to installed generation capacity. Indian power sector is undergoing a significant change that has redefined the outlook of the industry. The total installed capacity of all the power stations in India as on March 31, 2020 was 3,70,106 MW with the contribution of 2,30,600 MW, 45,699 MW (including 4,785 MW Pumped Storage Scheme), 87,027 MW and 6,780 MW from Thermal, Hydro, Renewable Energy Sources and Nuclear power respectively[1]. The total electricity generation from conventional sources in the country during the financial year 2019-20 was 1,252.61 billion units as compared to 1,249.33 billion units during the previous financial year, registering a growth of 0.26%[2].

2. HYDROPOWER POTENTIAL IN INDIA

Water is one of the nature's invaluable renewable gifts, which can be harnessed for least cost power generation. Our country has an enormous hydro power potential and ranks amongst the topmost nations in the world for possessing feasible hydro-power capacity, of which most of the capacity is yet to be tapped. The re-assessment study of the hydro-electric potential of the country was done by the Central Electricity Authority (CEA) in 1987. According to it, the hydropower potential in terms of installed capacity is estimated at 1,48,701 MW, comprising 1,45,320 MW potential capacity from hydro-electric schemes having capacity of above 25 MW. Therefore, the outlook of India's hydropower generation looks promising with expected pace of industrialization in the country and Government of India's mission to provide 24x7 electricity to all. NHPC has a prominent role to play in tapping the hydropower potential of the country.

3. MEASURES TAKEN BY GOVERNMENT OF INDIA TO PROMOTE HYDROPOWER SECTOR

Government of India has taken various initiatives to achieve inclusive growth in Power Sector by providing cleaner and affordable power for all. One of such initiatives is the new hydro policy, wherein the Government of India has approved a slew of measures, which inter alia include declaration of large hydropower projects i.e. projects with capacity of more than 25 MW as renewable energy source. Provisions of Hydro Purchase Obligations (HPO) have been notified as a separate entity within Non–solar Renewable Purchase Obligation (RPO), which require Distribution Companies (DISCOMs) to buy a fixed amount of Hydro energy to cut reliance on fossil fuels, etc. Tariff rationalization measures have also been notified which allow developers to determine tariff by back loading of tariff after increasing project life to 40 years. In addition to above, budgetary support shall also be extended for flood moderation component of hydro project and cost of enabling infrastructure i.e. roads/bridges.

Further, to reduce the incidence of time and cost overruns of hydropower projects, Ministry of Power has issued guidelines for compliance, which include provision of sunset date, scheduling, dispute resolution, enhanced delegation, adoption of international best practices, timely claim settlement and incentive to labour for achieving project milestones in time.

4. MEASURES TAKEN BY MINISTRY OF POWER, GOVERNMENT OF INDIA TO ENSURE PAYMENT SECURITY MECHANISM TO INTER-STATE GENERATORS SUPPLYING POWER TO DISCOMS

As a payment security mechanism, a provision has been made in PPAs to provide Letter of Credit (LC) by DISCOM to generating companies. However, LCs are not being provided by DISCOMs having large

[1] Source: Central Electricity Authority

[2] Source: Website of Ministry of Power

outstanding dues. Ministry of Power vide its order has re-emphasized the need for maintenance of adequate LC as a payment security mechanism. National Load Dispatch Center (NLDC)/ Regional Load Dispatch Center (RLDC) were directed to schedule power to DISCOMs only after intimation by Generating Companies (GENCOs) that LCs for desired quantum of power has been opened by DISCOMs. LC for shorter duration i.e. one week / fortnight was also permitted. In case of difficulty, even payment of advance through electronic mode for one day purchase of electricity was also granted.

The above measures have ensured that DISCOMs release the payments to generating companies timely for electricity drawn from August 1, 2019 onwards.

5. CERC (TERMS AND CONDITIONS OF TARIFF) REGULATIONS, 2019

CERC has issued CERC (Terms and Conditions of Tariff) Regulations, 2019 in March, 2019 which are applicable for the period 2019-24. Some of the benefits for Hydro-electric Projects as per above regulations are as under:

- Cut-off date now to be considered as 36 months from the end of calendar month of Commercial Date of Operation (COD).
- Delay in obtaining statutory approval for the project (except where the delay is attributable to the project developer) included under 'Force Majeure' event.
- Variation in additional capitalization increased from 5% to 10% for levy of penal interest (i.e. 1.2 times bank rate for reimbursement of additional AFC to beneficiaries & 1 times the bank rate for recovery of AFC from beneficiaries).
- Land acquisition (except where the delay is attributable to the generating company) to be considered as 'un-controllable factor' for analysis of time & cost overrun.
- O&M expenses for older plants - the normative O&M expenses allowed for older power stations does not include the impact of wage revision, minimum wages and GST, which will be allowed separately.

6. SWOT ANALYSIS

(i) STRENGTHS

- **Established track record in developing hydro-electric projects & experienced manpower**

NHPC possesses rich experience and expertise in development of hydro-electric projects across the Country. NHPC has a competent and committed workforce having vast experience in the industry with capabilities and expertise from concept to operation of hydro-electric projects. The skills, knowledge of industry and vast experience of its employees provide NHPC, a significant competitive advantage.

- **Capabilities from concept to commissioning including in-house design & engineering and geo-technical studies**

NHPC has over 44 years of experience in the hydropower sector from concept to commissioning. NHPC's Design Division with extensive experience in hydropower sector is dedicated to cater to the design and engineering requirements of its various projects/power stations. NHPC's in-house technical capabilities in diversified fields namely Survey, Drilling, Hydrology, Geology, Geophysics, Construction Material Survey, Civil, Electrical and HM Design, Environment, Construction Management, O&M, Renovation and Modernisation of existing Power Stations gives an edge over other hydropower companies in India. Extensive in-house experience and technical expertise enable NHPC to successfully acquire stranded brownfield hydro-projects through Hon'ble NCLT. NHPC is equipped with state-of-the-art geophysical equipment for accurate prognosis of sub-surface geological conditions from surface and forecasting ahead of face tunneling media. NHPC has established state-of-the-art laboratories like Geotechnical Lab, Remote Sensing Lab, Quality Control Lab, Real time Seismic Data Center etc. as a part of technical up-gradation.

- **Extensive experience in construction and operation**

NHPC has extensive experience and expertise in the development of hydro-electric projects in complex geological regions, using in-house state-of-art technology to overcome number of geo-technical challenges. It has successfully completed construction of some of the hydro-electric projects located in remote hilly areas with various challenges like inaccessibility, poor logistics, adverse climate and technological hindrances. NHPC has proven experience in effectively operating power stations particularly in silt prone Himalayan region. At present, NHPC is successfully operating 20 hydropower stations of different installed capacities, ranging from 44 MW to 690 MW.

- **Strong financial position**

The hydropower generation is highly capital-intensive mode of electricity generation which requires strong financial position. NHPC's paid-up share capital of Rs. 10,045.03 crore with investment base of over Rs. 64,613.52 crore and highest credit rating for its listed bonds reflects its strong financial position. Thus, NHPC is competent enough to execute capital intensive large hydro-electric projects.

- **Strong operating performance**

  NHPC has successfully managed to develop and implement projects with aggregate installed capacity of 7,071 MW. These projects include twenty two hydro-electric power stations (including two through its subsidiary company i.e. NHDC Limited), one solar power project and one wind power project. Thus, NHPC with its fleet of power stations is a flagship company in hydropower sector in India.

(ii) OPPORTUNITIES

- **Untapped hydro potential**

  India is endowed with significant hydroelectric potential. The deteriorating hydro-thermal mix, peaking shortages and frequency variations have forced policy makers to turn their attention towards the development of hydropower. India's huge untapped hydro potential, especially in the north-eastern region, provides opportunity for the development of hydropower. NHPC with its presence in north-eastern region and its capabilities has an opportunity for capacity addition by tapping hydro potential in coming years.

- **NHPC's continued ability to complete the hydro projects**

  The strength shown by NHPC over the years about its ability to complete the projects, where most of the other companies particularly in private sector are generally failing, is a sign of hope for the hydro sector. As a result, NHPC's forte in the construction of hydro-electric projects is creating new space for its growth. NHPC has opportunity to resume stalled hydro-electric projects of the Country by taking over debt-burdened hydropower companies through CIRP process thereby supporting economic growth of the Country. NHPC has already taken over LTHPL (developing Teesta-VI HE Project in Sikkim) through CIRP process and is a successful resolution applicant of Jal Power Corporation Limited (developing Rangit-IV HE Project in Sikkim) which is subject to approval of Hon'ble National Company Law Tribunal.

- **Renewable Energy**

  Government of India has released its roadmap to achieve 175 GW capacity in renewable energy by 2022, which includes 100 GW of Solar Power, 60 GW of Wind Power and remaining from others[3]. Business opportunities for NHPC got a boost after the Government of India's measures to promote hydropower development by declaring large hydroelectric projects as renewable energy source and introducing Hydro Purchase Obligation (HPO). Ministry of New and Renewable Energy (MNRE) has recently framed Ultra Mega Renewable Energy Power Parks (UMREPPs) scheme for development of large scale renewable energy projects with the support of Central Financial Assistance (CFA). NHPC is exploring possible opportunities to develop Solar Parks/Floating Solar Projects (>50 MW) in various potential rich states such as Odisha, Telangana, Rajasthan etc. to avail the benefit of the scheme.

- **Grid Balancing Requirement**

  Hydropower projects, often located in remote regions, are crucial to stabilize the grid, as India plan to add 175 GW of renewable capacity. Hydropower projects are ideal to meet peak load, compared to thermal power plants. They can be swiftly turned on and off, compared to thermal power plants. This helps the grid in withstanding fluctuations caused by intermittent supplies from solar and wind. NHPC generates clean, green and sustainable hydropower which is useful in mitigating peak power demand. The ability of hydropower stations showcased in the stability of the national grid during the Hon'ble Prime Minister's '9PM9MIN' initiative on April 5, 2020 to display the country's "collective resolve" to defeat the COVID 19 pandemic.

(iii) THREATS/ CHALLENGES /CONCERNS

- **Time and cost overruns**

  Time and cost overruns is a major concern in the construction of hydro-electric projects. Most of the hydro-electric projects are located in hilly terrain and are prone to devastating natural calamities like landslides, hill slope collapses, roadblocks, flood, cloud burst etc. These calamities cause severe setbacks to construction schedule. Further, in-spite of extensive survey and investigation, geological uncertainties have to be tackled, especially in long tunnels such as Head Race Tunnel. NHPC, with its rich experience

[3] Press Information Bureau, Ministry of New and Renewable Energy, Govt. of India.

and expertise coupled with state-of-the-art technology, has overcome such surprises many times in the past. However, these are common and unpredictable geological uncertainties, which may result in time and cost over-run.

- **Time consuming clearance process:**

  A hydro-electric project requires various statutory as well as non-statutory clearances from various agencies before implementation of a project. Multiple organization and states are generally involved in the clearance process. Therefore, obtaining requisite clearances has been a complex, tedious and time-consuming process and sometimes leads to abnormal delay in the project implementation. Many of the projects get bogged down because of the lengthy clearance procedures.

- **Difficulties in entering into Power Purchase Agreements (PPAs)**

  The tariff for new hydro-electric projects is relatively high during initial investment. Beneficiaries prefer to purchase their additional short term power requirements through power exchange or e-procurement rather than opting for long term/medium term PPAs. As such, sale of energy from projects with higher tariff is getting difficult in present day's power market scenario. NHPC is also facing similar difficulties in dispatch of power from some of the new projects through long term PPAs.

- **High initial cost/ tariff**

  The development of hydro-electric projects involve long gestation period and require large initial investment, which results into high initial tariff. Cash flow and results of operations of hydro-electric projects are also subject to variations as per tariff regulations notified by CERC from time to time.

- **Law & Order**

  NHPC is witnessing law & order problem at some of its projects/power stations located near sensitive border areas and at remote locations. Officials posted at these projects/power stations are prone to security threats.

- **Opposition to hydro-electric projects**

  Hydro-electric projects in India are facing opposition by certain pressure groups which has created apprehension amongst the hydro-electric project developers that their projects would get delayed leading to time and cost overruns.

- **State hydro policies restricting entry of PSUs**

  Water is a state subject under the Constitution of India. Several state governments have their own hydro policies, which favour payment of upfront premium, free power, over & above the requisite free power etc. for allocation of hydro-electric projects to the developers. CPSEs are facing difficulties in getting these hydro-electric projects as they require to follow the norms of Government of India.

- **Dependence on few contractors**

  Construction of hydro-electric projects requires manpower, machinery and substantial investment of money. There are very few resourceful contractors in India who have experience in this field and are willing to work in remote and difficult locations where accessibility is a major issue. The limited range of contractors, who are able to perform in the sector, increases our dependency on few contractors.

7. RISKS AND CONCERNS

Your Company has a well-defined risk management policy to provide overall framework for the risk management in the Company. A total of 54 key risks which may have detrimental effect on the business of the Company, have been identified along-with their mitigation measures and recorded in the risk register. Risk coordinators for each of the risks, responsible for timely action to manage such risks are identified. A Board level Risk Management Committee comprising of Independent and Functional Directors has been constituted to assist the Board in management of key risks, as well as aligning the strategic objectives, within the organization's operations to achieve the intended outcomes. Risk Management Committee further ensures that appropriate systems are in place to manage the identified risks, so that organization's assets are suitably protected.

The Risk Management Committee is assisted by Risk Assessment Committee comprising of Chief Risk Officer and other heads of key departments/regions. Risk Assessment Committee identifies the key risks, suggest mitigation measures and monitor/supervise the implementation of risk management policy. The heads of departments/ regions/ projects/ power stations implement and review the directions issued by Risk Assessment Committee on the identified risks and their mitigation measures.

8. OUTLOOK

Your Company is one of India's leading hydropower generating companies and is having more than fifteen percent of the total hydro installed capacity of the Country. Your Company's priority is to provide affordable and reliable power and to support Country's rapidly developing economy. Presently, Company is engaged in the construction of five hydro-electric projects aggregating to a total installed capacity of 4,924 MW which includes 2 hydro-electric projects i.e. Subansiri Lower H.E. Project (2,000 MW) and Parbati-II H.E. Project (800 MW) being executed on standalone basis and 3 hydro-electric projects i.e. Teesta-VI H.E. Project (500 MW), Pakal Dul H.E. Project (1,000 MW) and Kiru H.E. Project (624 MW) being executed through Subsidiaries/JV Companies. Further, projects having aggregate installed capacity of 8,211 MW are under clearance/approval stage and one project with installed capacity of 449 MW is in Survey & Investigation stage. NHPC is diversifying its portfolio by taking different renewable energy projects besides venturing into Power Trading Business. NHPC has already commissioned one project each of wind and solar energy. Details of projects under clearance/approval stage and renewable energy projects are given in the Directors' Report.

Your Company has taken initiatives to streamline the processes by adopting new technologies in the areas of engineering for its sustainable growth. NHPC has also applied the contemporary practices to reduce construction time, delays as well as cost overrun. Presently, operations of all power stations of the Company are either semi or fully automated. Construction supervision, post-commissioning monitoring and hurdle free operations are ensured by use of information technology. Many power stations are equipped with advanced distributed control systems along with SCADA systems. NHPC is also looking forward for remote operation of some of its power stations. During the year 2019-20, remote controlled operation of its two Power Stations i.e. Teesta Low Dam-III Power Station and Teesta Low Dam-IV Power Station was carried out from Regional Office, Siliguri.

9. SEGMENT-WISE OR PRODUCT WISE PERFORMANCE

Generation of electricity is the principal business activity of the Company. Other operations viz. power trading, contracts, project management and consultancy works do not form a reportable segment as per the Ind AS – 108 on "operating segment". The Company has a single geographical segment, as all its power stations are located within the Country.

10. INTERNAL CONTROL SYSTEMS AND ITS ADEQUACY

Your Company has sound internal systems and processes in place for smooth and efficient conduct of business and complied relevant laws and regulations. A comprehensive delegation of power from CMD to down below is in place to assist in smooth decision making, which is periodically reviewed to align it with changing business environment and for speedier decision making.

The Company has an in-house internal audit department headed by a senior officer. In compliance to Section 138 of the Companies Act, 2013, the Board has appointed Shri Vijay Kumar, Executive Director (Finance) as Chief Internal Auditor of the Company. The department has qualified and experienced workforce to carry out periodical as well as special audits.

A summary of audit observations and action taken reports are being submitted to Audit Committee. The recommendations of the committee are duly complied. In compliance to Section 134 of the Companies Act, 2013, M/s Arun K. Agarwal & Associates, Chartered Accountants, New Delhi was appointed to provide independent assurance on implementation of Internal Financial Controls in the Company during the financial year 2019-20. The firm, in its report, acknowledged the effectiveness of prevailing internal control systems in the Company.

11. FINANCIAL DISCUSSION AND ANALYSIS

(i) RESULTS OF OPERATIONS

A detailed analysis of the Audited Financial Results of the Company for the Fiscal 2020 vis-à-vis Fiscal 2019 is as under: -

Income

Table 1 (₹ in crore)

	Fiscal 2020	Fiscal 2019
Units of electricity generated (in million units)	26126	24430
Income		
(i) Sales of Energy	7,430.81	7,138.24
(ii) Income from Finance Lease	203.65	208.28
(iii) Income from Operating Lease	666.57	748.61
(iv) Revenue from Contracts, Project Management and Consultancy Works	27.88	23.85
(v) Revenue from Power - Trading	239.47	12.96
(vi) Other Operating Income	167.03	29.24
Revenue from operations [sum of (i) to (vi)]	**8,735.41**	**8,161.18**
Add: Other Income	1036.18	924.78
Total Income	**9,771.59**	**9,085.96**

Total income in Fiscal 2020 increased by 7.55% to ₹ 9,771.59 crore from ₹ 9,085.96 crore in Fiscal 2019, primarily due to increase in generation in Fiscal 2020, increase in Dividend Income from Subsidiaries, increase in Revenue from Power – Trading, increase in Revenue from Project Management and Consultancy works partially offset by decrease in Late Payment Surcharge, decrease in interest on investment/FDRs, decrease in sales pertaining to previous years and decrease in Operating Lease Income.

Sale of Energy

The principal source of income of the company is from sale of power to bulk customers comprising, mainly of electricity utilities owned by State Governments/ Private Distribution Companies pursuant to long-term Power Purchase Agreements. The rate of electricity are determined Power Station wise by the Central Electricity Regulatory Commission (CERC). The CERC vide its notification no. L-1/236/2018/CERC dated March 07, 2019 has issued Tariff Regulations for the tariff period 2019-24 and subsequent amendments from time to time. Pending approval of tariff for the period 2019-24 by Central Electricity Regulatory Commission (CERC), sales in respect of the Power Stations have been recognized provisionally as per ibid tariff notification except in case of Teesta Low Dam- IV Power Station in respect of which sale has been recognised as per tariff notified by CERC for the period 2014-19 and taking into account provision towards truing up of capital cost of the Power Stations in line with CERC tariff regulations 2019-24.

In case of Teesta Low Dam- III Power Station, tariff is in the process of being determined on the basis of mutually agreed rate between NHPC and WBSEDCL, the single beneficiary, which is lower than that determined as per the CERC Tariff notification for the period 2019-24. Pending finalisation of the Power Purchase Agreement and approval by CERC, sale has been recognised provisionally on the basis of such mutually agreed rate.

The said regulations inter-alia provides that, for the purpose of filing of tariff petitions, the Return on Equity (ROE), a component of tariff, is to be grossed-up using effective tax rate of the respective Financial Year. For the purpose of recognizing Sales, ROE has been grossed up using effective tax rate for FY 2019-20.

The Tariff Regulations also provide for incentives which comprise of incentives on achieving Plant Availability Factor greater than Normative Annual Plant Availability Factor (NAPAF), incentive for generation of energy in excess of the design energy of the plant (Secondary Energy) as well as incentive by way of deviation charges where the Power Station of the Company contribute towards maintaining grid stability.

The sales also include re-imbursement on account of Foreign Exchange Rate Variation (FERV) and reimbursement on account of Water Cess in respect of power stations situated in UT of Jammu & Kashmir.

In Fiscal 2020, 26126 MUs of electricity (excluding infirm power of 190 MUs generated by Parbati-II HE Project during FY 2019-20) was generated from installed capacity of 5551 MW as against 24430 MUs (excluding infirm power of 42 MUs generated by Parbati-II HE Project during FY 2018-19) from installed capacity of 5551 MW in Fiscal 2019. Accordingly, there was an increase of 6.94% in the number of units generated. The average selling price (after adjustment of components of earlier year sales and free power to home state) was ₹ 3.52 per unit for 22,936 million units sold in Fiscal 2020 as against ₹ 3.58 per unit for 21,481 million units sold in Fiscal 2019. During Fiscal 2020, the Company has earned ₹ 810.00 crore towards incentives against ₹ 747.65 crore in Fiscal 2019.

Sale of energy increased by 4.10% to ₹ 7,430.81 crore in Fiscal 2020 from ₹ 7,138.24 crore in Fiscal 2019 primarily due to higher generation in Power Stations. Company's Plant Availability Factor (PAF) in Fiscal 2020 was 84.04% as compared to 84.97% in Fiscal 2019.

Adjusted Sales of Energy

The revenue from sales of energy includes sales pertaining to earlier years but recognised in current year and excludes the sales of energy through five number of Power Stations whose sale is now considered as Operating/Finance Lease in terms of Ind-AS Provisions.

As per CERC Tariff Regulations, Exchange Rate Variation on interest payments and Loan repayments corresponding to the normative loans considered for tariff of stations/units is payable/recoverable to/ from the beneficiaries on repayment of the loans and interest thereon. Pursuant to the opinion of Expert Advisory Committee of the ICAI, Foreign Exchange Rate Variation on restatement of foreign currency loans as at the Balance Sheet date, payable/ recoverable to/from customers later-on on actual settlement, is accounted for by creating a deferred liability/asset in the accounts instead of adjusting the same in the statement of Profit & Loss.

For the purpose of year to year comparison, the impact of earlier year sales has been excluded from sales of energy in order to arrive at the adjusted sales of energy.

The revenue from sales of energy after such adjustments is as under:

Table 2 (₹ in crore)

	Fiscal 2020	Fiscal 2019
Net Sales (including lease income)	8,301.03	8,095.13
Less: Earlier year sales	220.05	411.47
Adjusted Sales of Energy	8,080.53	7,683.66

Revenue from Contracts, Project Management and Consultancy Works

The revenue under this head includes revenue from assignments pertaining to Construction Contracts, Project Management & Consultancy Contracts. These assignments primarily include consultancy assignments in respect of Chenab Valley Power Projects, Mangdechhu Project of Royal Govt. of Bhutan, Loktak Downstream Hydroelectric Corporation Limited and Lanco Teesta Hydro Power Limited. The income from contracts, project management and consultancy works increased by 4.03% from ₹ 23.85 crore in Fiscal 2019 to ₹ 27.88 crore in Fiscal 2020 due to increase in assignments in Fiscal 2020.

Revenue from Power – Trading

The revenue under this head includes revenue from Power Trading activity which the Company ventured into during Fiscal 2019. The revenue from Power - Trading increased from ₹ 12.96 crore in Fiscal 2019 to ₹ 239.47 crore in Fiscal 2020 due to increased activities in Fiscal 2020.

Other Operating Income

Other operating income in Fiscal 2020 was ₹ 167.03 crore i.e. an increase of 471.24% as against ₹ 29.24 crore in Fiscal 2019. Components of Other Operating Income are placed hereunder:

Table 3 (₹ in crore)

Other Operating Income	Fiscal 2020	Fiscal 2019
Income From Sale of Self-Generated VERs/REC	1.76	14.23
Income on account of generation based incentive (GBI)	2.53	3.21
Interest from beneficiary states	162.74	11.80
Total	**167.03**	**29.24**

Other Income

Other income in Fiscal 2020 was ₹ 1036.18 crore i.e. an increase of 12.05% as against ₹ 924.78 crore in Fiscal 2019. Major components of Other Income are placed and discussed hereunder:

Table 4 (₹ in crore)

Other Income	Fiscal 2020	Fiscal 2019
Interest on Loan to Govt. of Arunachal Pradesh	55.80	51.19
Interest on Term Deposits/ Investments	59.66	99.43
Dividend (mainly from NHDC-a Subsidiary Co.)	489.97	282.47
Late Payment Surcharge	259.34	303.15
Realisation from Insurance Company towards loss due to Business Interruption	-	48.77
Liability/ Provisions not required written back	5.22	30.77
Income from Insurance Claim	29.33	5.02
Mark to Market Gain on Derivative	33.71	-
Other miscellaneous income	103.15	103.98
Total	**1036.18**	**924.78**

Interest on Term Deposit/Investments has decreased to ₹ 59.66 crore during Fiscal 2020 as against ₹ 99.43 crore during Fiscal 2019 due to reduction in surplus cash invested during the year.

During Fiscal 2020, ₹ 489.97 crore was earned as Dividend from investments, mainly from subsidiary company (NHDC Ltd), as against ₹ 282.47 crore during Fiscal 2019.

Expenditure

Table 5 (₹ in crore)

Expenditure	Fiscal 2020	Fiscal 2019
Purchase of Power - Trading	234.13	12.68
Generation Expenses	901.67	796.85
Employee Benefits Expense	1,515.52	1,704.65
Finance Costs	795.42	894.88
Depreciation & Amortization Expense	1,545.34	1,589.99
Other Expenses	1,514.95	1,165.53
Total Expenditure	**6,507.03**	**6,164.58**

Total expenditure increased by 5.56% to ₹ 6,507.03 crore in Fiscal 2020 from ₹ 6,164.58 crore in Fiscal 2019 mainly due to increase in Purchase of Power- Trading by ₹ 221.45 crore, increase in Generation Expenses by ₹ 104.82 crore, increase in Other Expenses by ₹ 349.42 crore partially offset by decrease in Finance Cost by ₹ 99.46 crore, decrease in Employee Benefits Expense by ₹ 189.13 crore and decrease in Depreciation & Amortization Expense by ₹ 44.65 crore. Our total expenditure as a percentage of total income was 66.59% in Fiscal 2020 as compared to 67.85% in Fiscal 2019.

Purchase of Power –Trading

Purchase of Power – Trading consists of expenses on purchase of power for Trading. These expenses represent approximately 3.60% of the total expenditure in Fiscal 2020.

Generation Expenses

Generation expenses consist Water Cess and Consumption of stores and spare parts. These expenses represent approximately 13.86% of the total expenditure in Fiscal 2020 compared to 12.93% of the total expenditure in Fiscal 2019. In absolute terms, these expenses were ₹ 901.67 crore in Fiscal 2020 as against ₹ 796.85 crore in Fiscal 2019. The increase of ₹ 104.82 crore in generation expenses is primarily on account of increased water cess due to increased power generation at some of the J&K based Power Stations.

Employee Benefits Expense

Employee benefits expense include Salaries and Wages, Allowances, Incentives, Contribution to Provident Fund, Contribution to Employees Defined Contribution Superannuation Scheme, Impact of wage revision and expenses related to other employee welfare funds. These expenses account for 23.29% of our total expenditure in Fiscal 2020 as against 27.65% in Fiscal 2019. Employee costs has decreased from ₹ 1,704.65 crore in Fiscal 2019 to ₹ 1,515.52 crore in Fiscal 2020 i.e. a decrease of ₹ 189.13 crore in Fiscal 2020. The reduction is mainly due to payment of arrears for regularization of pay scales of below Board level executives during Fiscal 2019.

There were 6131 employees on the payroll as of March 31, 2020 compared to 6753 employees as of March 31, 2019. Out of this, 3501 and 3970 employees were engaged in Operation & Maintenance areas of our business during Fiscal 2020 & 2019 respectively.

Finance Costs

'Finance costs' consist of interest expense on bonds and term loans. In books of accounts, borrowings are denominated in Indian Rupees, including amount raised in foreign currencies (Japanese Yen). Finance Cost also includes expenses on account of Guarantee Fees in connection with loans raised from Foreign Market.

Finance Cost represent 12.22% of the total expenditure in Fiscal 2020 compared to 14.52% of the total expenditure in Fiscal 2019. Finance Cost decreased by 11.11% to ₹ 795.42 crore in Fiscal 2020 from ₹ 894.88 crore in Fiscal 2019. The decrease in Finance Cost is mainly due to capitalization of finance cost of Subansiri Lower Project for the last two quarters of Fiscal 2020 partially set off by increase due to allocation of interest in r/o of Wind & Solar Power Projects.

Depreciation & Amortization Expense

As per accounting policy of the Company, Depreciation is charged to the extent of 90% of the cost of assets following the rates and methodology notified by CERC vide notification dated 07.03.2019 on straight line method, except for some items on which depreciation is charged to the extent of 95% of the costs of the assets at the rates prescribed in the Companies Act, 2013 or as per rates assessed by Management.

Depreciation cost decreased by 2.81% to ₹ 1,545.34 crore in Fiscal 2020 from ₹ 1,589.99 crore in Fiscal 2019. The decrease in depreciation expenses is primarily due to increase in life of Hydropower Generating Stations from 35 years to 40 years as per Tariff Regulation 2019-24 partially offset by additional capitalization at power stations and full year commissioning of Kishanganga Power Station during Fiscal 2020.

As a percentage of total expenditure, depreciation & amortization expense decreased to 23.75% in Fiscal 2020 from 25.79% in Fiscal 2019.

Other Expenses

Other expenses consist primarily of Repair & Maintenance of Buildings and Plant & Machinery, Security Expenses, Insurance Expenses, Electricity Charges, CSR, Other Administrative Overheads, Provisions etc. These expenses represent approximately 23.28% of the total expenditure in Fiscal 2020 as against 18.91% in Fiscal 2019. In absolute terms, these expenses increased approximately by 29.98% to ₹ 1514.95 crore in Fiscal 2020 from ₹ 1165.53 crore in Fiscal 2019. The increase of ₹ 349.42 crore in other expenses is primarily due to increase in Security Expenses, Interest to beneficiary states, CSR Expenses, Insurance Expenses, Exchange Rate Variation, provision made against Survey & Investigation expense on Goriganga-III Project & Tawang-I Project partially offset by decrease in Restoration expenses and losses out of insurance claims, Electricity Expenses etc. which are lower in Fiscal 2020.

Movements in Regulatory Deferral Account Balances (Regulatory Income)

In line with the Guidance Note on "Accounting for Rate Regulated Activities" issued by the Institute of Chartered Accountants of India (ICAI) as well as keeping in view the provision of Ind AS 114 – Regulatory Deferral Accounts, 'Regulatory Assets' has been created and corresponding 'Regulatory Income' has been recognized for ₹ 343.61 crore. This includes Regulatory Assets recognised against the borrowing cost and administrative and other cost incurred on Subansiri Lower Project during the first two quarters of the current financial year amounting to ₹ 203.25 crore, Depreciation due to moderation of Tariff in respect of Kishanganga Power Station ₹ 195.62 crore, Exchange Differences against monetary items ₹ 0.99 crore, Adjustment against Deferred Tax Recoverable for tariff period up to 2009 ₹ (-)125.71 crore and Adjustment against Deferred Tax Liabilities for tariff period 2014-19 ₹ 69.46 crore which have been charged to the Statement of Profit & Loss as per the relevant Accounting Standard. Rate regulated income is recognised in the books of accounts for Fiscal 2020 on account of below mentioned four factors:

(i) Creation of Regulatory Deferral Account balances against expenses incurred at Subansiri Lower Project

Work at Subansiri Lower Project was interrupted from December 16, 2011 till October 15, 2019. Accordingly capitalization of borrowing cost and administrative & other expenses incurred on this project are being capitalized from October 2019.

For the half year ended September 30, 2019, Regulatory Assets and Regulatory Income have been recognised as per following details :

Table 6 (₹ in crore)

Sl. No.	Particulars	FY 2019-20	FY 2018-19
i)	Other Income	9.82	21.24
A	**Total Income**	**9.82**	**21.24**
i)	Employee Benefits Expenses	35.60	20.68
ii)	Finance Cost	157.61	76.78
iii)	Depreciation & Amortisation Expenses	3.59	1.77
iv)	Other Expenses	16.27	16.54
B	**Total Expenses**	**213.07**	**115.77**
C	**Net (A-B)**	**(203.25)**	**(94.53)**

(ii) Regulatory Deferral Account balances due to moderation of tariff of Kishanganga Power Station

The Company has carried out moderation of depreciation as a component of tariff of Kishanganga Power Station to make the tariff saleable which has been allowed by the CERC. This entitles the Company to recover the lower depreciation considered in tariff during the first ten years of operation over the balance useful life of the Power Station. Accordingly, the right to recover the difference between the depreciation charged in the books as per CERC Tariff Regulations, 2019-24 and that recoverable through tariff amounting to ₹ 195.62 Crore during Fiscal 2020 (Fiscal 2019 ₹ 171.98 Crore) has been recognised as Regulatory Income.

(iii) Regulatory Deferral Account balances in respect of exchange differences on Foreign Currency Monetary items

Exchange differences arising on translation/ settlement of foreign currency monetary items to the extent charged to the Statement of Profit & Loss and further recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are being recognized as 'Regulatory Deferral Account balances' w.e.f. April 01, 2016. These balances are adjusted from the year in which the same become recoverable from or payable to the beneficiaries after Date of Commercial Operation (COD) of the Project.

Accordingly, the Company has created Regulatory Assets and recognised corresponding Regulatory Income of Rs. 0.99 crores during Fiscal 2020 (Fiscal 2019 ₹ (-) 0.57 Crore), which is recoverable from beneficiaries in future periods.

(iv) Regulatory Deferral Account balances due to reclassification of deferred tax recoverable/ deferred tax adjustment against deferred tax liabilities

As per CERC Tariff Regulations, deferred tax arising out of generating income for the tariff period 2004-09 is recoverable from beneficiaries in the year the same materializes as current tax. For the tariff periods 2014-19 and 2019-24, deferred tax is recoverable by way of grossing up the Return on Equity by the effective tax rate based on actual tax paid. Till March 31, 2018 the deferred tax recoverable from beneficiaries in future years was presented as an adjustment to deferred tax liability.

The practice was reviewed in FY 2018-19 based on an opinion of the Expert Advisory Committee of the Institute of Chartered Accountants of India (EAC of the ICAI) obtained during that year. As per opinion of the EAC of ICAI, adjustment against Deferred Tax Liability is not a deductible temporary difference resulting into deferred tax asset under Ind AS 12- Income Taxes, but rather fulfils the definition of regulatory deferral account balance in terms of Ind AS 114 - Regulatory Deferral Accounts.

The regulated assets (+)/liability (-) recognized in the books during Fiscal 2020 are as follows:

In respect of deferred tax recoverable for tariff period upto 2009, ₹ 125.71 Crore has been utilized during fiscal 2020 (Fiscal 2019 ₹ 137.30 Crore) and in respect of deferred tax adjustment against deferred tax liabilities (pertaining to tariff period 2014-19), ₹ 69.46 Crore has been recognised as Regulatory Income during Fiscal 2020 (Fiscal 2019 ₹ 490.91 Crore).

Profit before Tax (including Rate Regulated Income)

Due to the reasons outlined above, our profit before tax decreased by 3.65% to ₹ 3,608.17 crore in Fiscal 2020 from ₹ 3,744.78 crore in Fiscal 2019.

Tax Expenses

In Fiscal 2019, we provided ₹ 601.00 crore for tax expenses as compared to ₹ 1,114.23 crore in Fiscal 2019. The decrease in tax expenses in Fiscal 2020 is on account of decrease in deferred tax expenses by ₹ 465.85 crore and decrease in current year taxes by ₹ 114.88 crore which is partially offset by increase in earlier year tax adjustments by ₹ 67.50 crore.

Other Comprehensive Income (OCI)

Other Comprehensive Income (OCI) which comprises Re-measurements of defined benefit plan and Fair value gain/loss in Equity & Debt Instruments in Fiscal 2020 was ₹ (-)0.62 crore i.e. a decrease of 95% as against ₹ (-)12.41 crore in Fiscal 2019.

Total Comprehensive Income (TCI)

Total Comprehensive Income (TCI) i.e. total profit inclusive of OCI in Fiscal 2020 was ₹ 3,006.55 crore i.e. an increase of 14.84% as against ₹ 2,618.14 crore in Fiscal 2019.

(ii) LIQUIDITY AND CAPITAL RESOURCES

Both internal and external sources of liquidity are utilized for Working Capital requirement and funding of capital expenditure requirements. Generally long term borrowings are raised through term loans from banks/ financial institutions or issue of bonds either in Indian Rupees or foreign currencies. Cash and cash equivalents were ₹ 8.87 crore and ₹ 12.04 crore as of March 31, 2020 and 2019 respectively.

Cash Flows

Table 7 (₹ in crore)

	Fiscal 2020	Fiscal 2019
Net cash inflow/(outflow) from operating activities	2,473.45	3,439.76
Net cash inflow/(outflow) from investing activities	(3,156.32)	(1,164.95)
Net cash inflow/(outflow) from financing activities	679.70	(2,269.51)

Net Cash from operating activities

In Fiscal 2020, the net cash from operating activities was ₹ 2,473.45 crore and Profit before Tax and Regulated Income but after exceptional items was ₹ 3,264.56 crore. Net cash from operating activities has been arrived at after adjusting non-cash items mainly depreciation of ₹ 1,545.34 crore, interest expenses of ₹ 795.42 crore, ₹ 155.17 crore towards provisions, ₹ 42.94 crore towards sales adjustment on a/c of FERV, ₹ 2.51 crore loss on sale of assets/claims written off, ₹ 44.72 crore for deferred revenue on account of advance against depreciation, ₹ 5.22 crore on account of provisions/liabilities not required written back, ₹ 489.97 crore on account of dividend income, ₹ 162.16 crore towards interest earned on Deposits/ Investments and other non-operating items. Changes in Operating Assets & Liabilities had impact of cash outflow by ₹ 2016.96 crore, which was due to the net effect of change in Inventories, Trade Receivables, Other Financial Assets, Loans & Advances, Other Financial Liabilities and Provisions.

The net cash from operating activities was ₹ 3,439.76 crore in Fiscal 2019. We had net Profit before Tax and Regulated Income but after exceptional items of ₹ 2,921.38 crore in Fiscal 2019. Our net cash from operating activities had been arrived at after adjusting non-cash items mainly depreciation of ₹ 1,589.99 crore, interest expenses of ₹ 894.88 crore, ₹ 107.10 crore towards provisions, ₹ 45.47 crore on account of tariff adjustment, ₹ 92.34 crore towards sales adjustment on a/c of FERV, ₹ 60.72 crore for deferred revenue on account of advance against depreciation, ₹ 30.77 crore on account of provisions/ liabilities not required written back, ₹ 282.47 crore on account of dividend income, ₹ 165.61 crore towards interest earned on Deposits/Investments and other non-operating items. Changes in Operating Assets & Liabilities had impact of cash outflow by ₹ 967.19 crore, which was due to the net effect of change in Inventories, Trade Receivables, Other Financial Assets, Loans & Advances, Other Financial Liabilities and Provisions.

Net Cash from Investing Activities

Our net cash used in investing activities was ₹ 3,156.32 crore in Fiscal 2020. This mainly reflected expenditure on Fixed Assets i.e. Property, Plant & Equipment, Other Intangible Assets & Expenditure on construction projects of ₹ 2,708.71 crore, ₹ 140.45 crore towards Investment in Joint Venture and ₹ 924.70 crore towards Investment in Subsidiaries partly offset by interest income on Deposits/ Investments by ₹ 127.05 crore and an amount of ₹ 489.97 crore towards dividend income.

Our net cash used in investing activities was ₹ 1,164.95 crore in Fiscal 2019. This mainly reflected expenditure on Fixed Assets i.e. Property, Plant & Equipment, Other Intangible Assets & Expenditure on construction projects of ₹ 1,492.48 crore and ₹ 100.00 crore towards Investment in Joint Venture partly offset by interest income on Deposits/Investments by ₹ 144.14 crore and an amount of ₹ 282.47 crore towards dividend income.

Net Cash from Financing Activities

In Fiscal 2020, our net cash inflow from financing activities was ₹ 679.70 crore. We raised ₹ 5,967.71 crore from fresh domestic term loans, foreign loans & bonds. Borrowings to the tune of ₹ 1,715.05 crore were repaid. Our cash outflow on account of repayment of lease liability was to the tune of ₹ 3.27 crore. The amount related to interest servicing was ₹ 1,332.22 crore. In Fiscal 2020, total dividend (including dividend tax) amounting to ₹ 2,237.47 crore was paid.

In Fiscal 2019, our net cash outflow on financing activities was ₹ 2,269.51 crore. We raised ₹ 2,578.00 crore from fresh domestic term loans & bonds. Borrowings to the tune of ₹ 1,877.16 crore were repaid. Our cash outflow on account of buyback of equity shares was to the tune of ₹ 606.20 crore. The amount related to interest servicing was ₹ 1,215.12 crore. In Fiscal 2019, total dividend (including dividend tax) amounting to ₹ 1,149.03 crore was paid.

(iii) BALANCE SHEET ITEMS

Balance Sheet Highlights

Assets

Table 8 (₹ in crore)

Particulars	As of March 31	
	2020	2019
Non-Current Assets		
Net Fixed Assets	39,393.17	38,749.95
Non-Current Investments	3,400.74	2,361.66
Trade Receivables	0.00	61.51
Long Term Loans	798.65	746.41
Other Financial Assets	3,435.91	3,467.16
Non-Current Tax Assets (Net)	138.90	131.95
Other Non-Current Assets	3,023.61	2,021.35
Total Non-Current Assets	**50,190.98**	**47,539.99**
Current Assets		
Inventories	118.24	117.14
Trade Receivables	3,818.34	2,623.09
Cash & Bank Balances	389.12	390.63
Short Term Loans	46.03	45.18
Other Financial Assets	2,699.74	1,984.26
Current Tax Assets (Net)	86.95	61.22
Other Current Assets	427.90	355.25
Total Current Assets	**7,586.32**	**5,576.77**
Regulatory Deferral Account Debit Balances	6,836.22	6,492.61
Total Assets and Regulatory Deferral Account Debit Balances	**64,613.52**	**59,609.37**

Equity and Liabilities

Table 9 (₹ in crore)

	As of March 31,	
	2020	2019
Equity (Net Worth)		
Equity Share Capital	10,045.03	10,045.03
Other Equity	19,938.78	19,169.70
Non-Current Liabilities		
Long Term Borrowings	20,889.74	17,044.63
Other Financial Liabilities	2,059.23	2,058.64
Long Term Provisions	27.66	26.82
Deferred Tax Liabilities (Net)	3,641.19	3,610.63
Other Non-Current Liabilities	2,082.65	1,824.98
Current Liabilities		
Short Term Borrowings	714.31	406.00
Trade Payables	304.26	180.18
Other Financial Liabilities	2,879.70	2,846.92
Other Current Liabilities	802.81	1,066.47
Short Term Provisions	1,228.16	1,329.37
Total Equity and Liabilities	**64,613.52**	**59,609.37**

Financial Condition

Net Fixed Assets

Our fixed assets consist of Land, Dams, Tunnels, Buildings including Power House Buildings, Construction Equipment, Plant & Machinery, Office Equipment, Computers and Intangible Assets etc. Our Fixed Assets after Depreciation, defined as net Fixed Assets, were ₹ 39,393.17 crore and ₹ 38,749.95 crore as of March 31, 2020 and March 31, 2019 respectively.

Investments

Investments are intended for long term and carried at cost which consist of equity investments in Subsidiaries/Joint Venture Companies, Govt. Securities & Bonds. Our total investment was ₹ 3,400.74 crore and ₹ 2,361.66 crore as of March 31, 2020 and March 31, 2019 respectively.

The increase in Investment is the net effect of increase in investment in Lanco Teesta Hydro Power Limited (wholly owned subsidiary) and investment in one of our Joint Venture Company partially offset by decrease in fair value of investment in equity instruments.

Loans (Current & Non-Current)

Loans include loans to our employees and loan including interest to Govt. of Arunachal Pradesh. Loans as of March 31, 2020 and of March 31, 2019 were ₹ 844.68 crore and ₹ 791.59 crore respectively i.e. there is an increase of 6.71 % over figures of previous Fiscal mainly due to increase in loan including interest to Govt. of Arunachal Pradesh partially offset by decrease in employee loans.

Other Financial Assets (Current & Non-Current)

The other financial assets as at March 31, 2020 stood at ₹ 6,135.65 crore against ₹ 5,451.42 crore for the previous fiscal. i.e. there is an increase of 12.55% over figures of previous Fiscal. Other Financial Assets include amount recoverable on account of Bonds fully serviced by Govt. of India, Lease rent receivable, Interest income accrued on Bank Deposits, claim recoverable from different agencies, Receivable from Subsidiaries/JVs and Receivable on account of unbilled revenue etc.

The increase of 12.55% in Fiscal 2020 as compared to the figures in Fiscal 2019 is mainly due to increase in receivable on account of unbilled revenue partially offset by decrease in Lease rent receivable and receivable from Subsidiaries/JVs.

Tax Assets (Current & Non-Current)

Tax assets as of March 31, 2020 and 2019 were ₹ 225.85 crore and ₹ 193.17 crore respectively i.e. there is an increase of 16.92% over figures of previous Fiscal. Tax Assets include Advance Income Tax & Tax Deducted at Source.

Other Non-Current Assets

Other non-current assets mainly comprise deferred foreign currency fluctuation assets, capital advances and advance to contractor against arbitration awards. Our other non-current assets as of March 31, 2020 and 2019 were ₹ 3,023.61 crore and ₹ 2,021.35 crore respectively. The increase of 49.58% in Fiscal 2020 as compared to the figures in Fiscal 2019 is mainly due to increase in advance to contractor against arbitration awards partially offset by decrease in capital advances.

Inventories

Inventories are valued at cost or Net Realisable Value whichever is lower. Our inventories were valued at ₹ 118.24 crore and ₹ 117.14 crore as of March 31, 2020 and 2019 respectively.

Trade Receivables (Current & Non-Current)

These consist primarily of receivables against the sale of electricity and debtors for surcharge excluding unbilled revenue. The trade receivables (net of provision for doubtful debts) as of March 31, 2020 and 2019 were ₹ 3,818.34 crore and ₹ 2,684.60 crore respectively. Increase of 42.23% in trade receivables in Fiscal 2020 as compared to Fiscal 2019 is due to lower realisation of outstanding dues.

Cash and Bank Balances

Cash and Bank balances as of the Balance Sheet date consist of cash surplus in our current account and Short Term deposits and the unspent advances received from Government entities in respect of costs associated with the Pradhan Mantri Grameen Sadak Yojana Scheme in connection with the development of rural roads and the Rajiv Gandhi Grameen Vidyutikaran Yojana Scheme relating to the establishment of Rural Electrification Infrastructure.

Cash and Cash equivalents as of March 31, 2020 and 2019, respectively, were ₹ 8.87 crore and ₹ 12.04 crore. The decrease of ₹ 3.17 crore during Fiscal 2020 is net result of cash outflow on investing activities by ₹ 3,156.32 crore offset by cash inflow of ₹ 2,473.45 crore & ₹ 679.70 crore on account of operating & financing activities respectively.

Bank balances other than Cash and Cash Equivalents as of March 31, 2020 and 2019, respectively, were ₹ 380.25 crore and ₹ 378.59 crore.

Our bank balances other than Cash and Cash Equivalents included ₹ 268.78 crore (Previous Year ₹ 253.82 crore) held for Rural Road and Rural Electrification works being executed by Company on behalf of other agencies and also included unpaid dividend, unpaid interest & other earmarked balances of ₹ 111.43 crore (Previous Year ₹ 124.77 Crore) which were not freely available for the business of the Company.

Other Current Assets

Other Current Assets mainly comprises Deposit and Advances other than Capital Advances, Prepaid Expenditure and Deferred Foreign Currency Fluctuation Assets. Our other Current Assets, as of March 31, 2020 and 2019 respectively were ₹ 427.90 crore and ₹ 355.25 crore, an increase of 20.45% in Fiscal 2020 as compared to the figures in Fiscal 2019 is mainly due to increase in interest accrued and due on advances to contractors.

Regulatory Deferral Account Debit Balances

In line with the Guidance Note on "Accounting for Rate Regulated Activities" issued by the Institute of Chartered Accountants of India as well as keeping in view the provisions of Ind-AS 114-Regulatory Deferral Accounts, 'Regulatory Assets' has been created and corresponding 'Regulatory Income' has been recognized.

Regulatory Deferral Account Debit balances as on March 31, 2020 and March 31, 2019 were as under:

Table 10 (₹ in crore)

Particulars	March 31, 2020	March 31, 2019
Regulatory Deferral Account balances in respect of Subansiri Lower Project	3,470.59	3,267.34
Wage Revision as per 3rd Pay Revision committee	631.90	631.90
Differential depreciation due to Moderation of Tariff in respect of Kishanganga Power Station	367.60	171.98
Exchange differences on Foreign Currency Monetary items	0.02	(0.97)
Adjustment against Deferred Tax Recoverable for tariff period upto 2009	1,529.02	1,654.73
Adjustment against Deferred Tax Liabilities for tariff period 2014-2019	837.09	767.63
Total	**6,836.22**	**6,492.61**

Net worth

The net worth of the Company at the end of fiscal 2020 increased to ₹ 29,983.81 crore from ₹ 29,214.73 crore in the previous fiscal registering an increase of 2.63% mainly due to increase in profit after tax and increase in retained earnings.

Long Term Borrowings

Long Term Borrowings mainly comprised of Bonds, Secured Term Loans & Unsecured Loans including Foreign Currency Loans amounting to ₹ 14,532.79 crore, ₹ 974.00 crore and ₹ 5,371.87 crore in fiscal 2020 as against ₹ 11,635.59 crore, ₹ 1,040.34 crore and ₹ 4,368.70 crore respectively in fiscal 2019. The Secured loans include borrowings from domestic banks and financial institutions along with corporate bonds raised in the capital markets that are secured against assets of the company.

The increase in Long Term Borrowing to the extent of 22.56% over previous fiscal is mainly on account of issue of 'Y', 'Y-1', 'AA' & 'AA-1' Series Bonds partly offset by redemption of bonds and repayment of borrowings.

Other Financial Liabilities (Current & Non-Current)

The other financial liabilities as at March 31, 2020 stood at ₹ 4,938.93 crore against ₹ 4,905.56 crore for the previous fiscal i.e. there is an increase of 0.68% over figures of previous fiscal.

Provisions (Current & Non-Current)

Provisions include provision for Performance Related Pay, Superannuation/Pension fund, Provision towards employee benefits (actuarial valuation), Provision for Tariff Adjustment, Provision for Wage Revision – 3rd Pay Revision Committee, Provision for Committed Capital Expenditure and Other Provisions etc. Total provisions stood at ₹ 1,255.82 crore as at March 31, 2020 as against ₹ 1,356.19 crore for previous fiscal i.e. there is a decrease of 7.40 % over figures of previous fiscal due to decrease in Provision for Tariff Adjustment, Provision for Wage Revision – 3rd Pay Revision Committee partly offset by increase in Provision for PRP.

Deferred Tax Liabilities

The Deferred Tax Liabilities as at March 31, 2020 stood at ₹ 3,641.19 crore against ₹ 3,610.63 crore for the previous fiscal.

Other Non-Current Liabilities

The Other Non-Current Liabilities as at March 31, 2020 stood at ₹ 2,082.65 crore against ₹ 1,824.98 crore for the previous fiscal. Other Non-Current Liabilities include income received in advance (Advance against Depreciation) and Grants in aid-from Government.

Short Term Borrowings

The Short term borrowings as at March 31, 2020 stood at ₹ 714.31 crore against ₹ 406.00 crore for the previous fiscal. Short term borrowings consist of borrowings from Banks.

Trade Payables

The Trade payables as at March 31, 2020 stood at ₹ 304.26 crore against ₹ 180.18 crore for the previous fiscal i.e. there is an increase of 68.86% over figures of previous fiscal.

Other Current Liabilities

The other current liabilities as at March 31, 2020 stood at ₹ 802.81 crore against ₹ 1,066.47 crore for the previous fiscal i.e. there is a decrease of 24.72% over figures of previous fiscal.

(iv) OFF-BALANCE SHEET ITEMS

Contingent Liabilities

The following table sets forth the components of our contingent liabilities as of Fiscal 2020 and 2019.

Table 11 (₹ in crore)

Particulars	Fiscal 2020	Fiscal 2019
Claims against the Company not acknowledged as debts in respect of:		
Capital Works	10,144.10	10,494.10
Land Compensation Cases	137.04	186.49
Disputed Tax matters and Other Items	1,233.97	1,224.42
Total	**11,515.11**	**11,905.01**

Contingent liabilities decreased by 3.28% from ₹ 11,905.01 crore as of March 31, 2019 to ₹ 11,515.11 crore as of March 31, 2020.

BUSINESS AND FINANCIAL REVIEW OF SUBSIDIARIES/ JOINT VENTURE COMPANIES

Highlights of the subsidiaries and joint venture companies of NHPC are as under:-

NHDC Limited

NHDC Ltd. was incorporated on 01.08.2000 as a Joint Venture of NHPC Ltd. (51.08%) and Government of Madhya Pradesh (48.92%) having authorised share capital of ₹ 3,000 crore. NHDC has commissioned Indira Sagar Power Project (1,000 MW) and Omkareshwar Power Project (520 MW). The total income of NHDC Ltd. for the financial year ended March 31, 2020 and 2019, respectively was ₹ 1,494.57 crore and ₹ 1,037.30 crore. The Profit After Tax of NHDC Ltd. for the financial year ended March 31, 2020 and 2019, respectively was ₹ 919.96 crore and ₹ 490.71 crore. Paid up share capital of the company is ₹ 1,962.58 crore of which NHPC's contribution is ₹ 1,002.42 crore.

Loktak Downstream Hydroelectric Corporation Limited

Loktak Downstream Hydroelectric Corporation Limited was incorporated on 23.10.2009 as a Joint Venture of NHPC Ltd. (74%) and Government of Manipur (26%) having authorized share capital of ₹ 230 Crore. Paid up share capital of the company is ₹ 123.39 crore of which NHPC's contribution is ₹ 90.29 crore. The Company is yet to start operations.

Bundelkhand Saur Urja Limited

Bundelkhand Saur Urja Limited was incorporated on 02.02.2015, as a Joint Venture of NHPC Ltd. and Government of Uttar Pradesh (UPNEDA), with NHPC's share not less than 74%. The authorized share capital of the company is ₹ 60.00 crore. Paid up share capital of the company is ₹ 5.00 crore of which NHPC's contribution is ₹ 5.00 crore (99.99%). The Company is yet to start operations.

Lanco Teesta Hydro Power Limited

During the FY 2019-20, NHPC has acquired Lanco Teesta Hydro Power Limited as its wholly owned subsidiary under insolvency resolution process. The acquisition was made as per the resolution plan submitted by NHPC and approved by the National Company Law Tribunal (NCLT). The authorized share capital of the company is ₹ 1500.00 crore. Paid up share capital of the company is ₹ 920.50 crore in which 100% contribution has been made by NHPC. The Company is involved in construction of Teesta-VI Hydro Power Project and is yet to start operations.

Chenab Valley Power Projects Private Limited

Chenab Valley Power Projects Private Limited was incorporated on 13.06.2011 as a Joint Venture of NHPC Ltd. (49%), Jammu & Kashmir State Power Development Corporation (JKSPDC) (49%) & PTC India Ltd. (2%) having authorized share capital of ₹ 3,500 crore for execution of Pakal Dul, Kiru & Kwar H.E. Projects with installed capacity of 2,164 MW in Chenab River Basin. Paid up share capital of the company is ₹ 1,780 crore of which NHPC's contribution is ₹ 888 crore. The Company is yet to start operations.

National High Power Test Laboratory Private Limited (NHPTL)

NHPTL was incorporated on 22.05.2009 as a Joint Venture Company of NHPC Ltd., NTPC Ltd., Power Grid Corporation of India Limited (Power Grid) and Damodar Valley Corporation (DVC) each having 25% of equity participation. During the Fiscal 2013, Central Power Research Institute also entered into the Joint Venture thereby revising the equity participation to 20% of each Joint Venture partner. The Company has been incorporated to set up an Online High Power Test Laboratory for short-circuit test facility in the Country having Authorised Share Capital of ₹ 153 crore. As on March 31, 2020 paid up share capital of the company is ₹ 152 crore of which NHPC's contribution is ₹ 30.40 crore. The company has started commercial operation during Fiscal 2018. For the financial year ended March 31, 2020, the Company incurred a loss of ₹ 21.38 crore while loss for the financial year ended March 31, 2019 was ₹ 7.38 crore.

Consolidated Financial Statements of NHPC Ltd, its Subsidiaries and Joint Venture Companies

The Consolidated Financial Statements have been prepared in accordance with Ind-AS 110-'Consolidated Financial Statements' and Ind-AS 28-'Investment in Associates & Joint Ventures' which are included in this Annual Report.

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

Table 12 (₹ in crore)

Particulars	Fiscal 2020	Fiscal 2019
Total Income	10,776.64	9,846.81
Profit before Tax	3,615.22	4,159.41
Profit after Tax (after adjustment of Non-Controlling Interest)	2,874.61	2,595.61

Key Financial Ratios (Standalone basis)

Table 13

S. No.	Ratios	Fiscal 2020	Fiscal 2019	% Change
1.	Debtors Turnover Ratio	2.69	4.12	(-) 34.72%
2.	Inventory Turnover Ratio	Not Applicable	Not Applicable	-
3.	Interest Coverage Ratio	7.53	7.68	(-) 1.86%
4.	Current Ratio	1.28	0.96	33.73%
5.	Debt Equity Ratio	0.82	0.71	15.63%
6.	Operating Profit Margin	37.49%	40.51%	(-) 7.46%
7.	Net Profit Margin	30.77%	28.95%	6.30%
8.	EBITDA Margin	59.23%	67.70%	(-) 12.51%
9.	Debt Service Coverage Ratio	3.41	3.35	1.79%

Debtor Turnover Ratio

Debtor turnover Ratio of the company at the end of Fiscal 2020 decreased to 2.69 from 4.12 in the previous Fiscal 2019 registering a decrease of 34.72% due to increase in trade receivables in Fiscal 2020.

Current Ratio

Current Ratio of the company at the end of Fiscal 2020 increased to 1.28 from 0.96 in the previous Fiscal 2019 registering an increase of 33.73% mainly due to increase in amount recoverable from parties and trade receivables, receivable on account of unbilled revenue in Fiscal 2020.

Return on Net worth

Return on Net Worth of the company at the end of Fiscal 2020 increased to 10.03% from 9.00% in the previous Fiscal 2019 registering an increase of 11.38% mainly due to increase in profit after tax and increase in retained earnings.

12. MATERIAL DEVELOPMENT IN HUMAN RESOURCES AND INDUSTRIAL RELATIONS FRONT

Your company recognizes the importance of human capital for the success of its business. Company endeavors to acquire the best talent in the Country from leading educational institutions and universities. It has been working towards nurturing and retaining talent by providing opportunities to improve their knowledge and skills. Job rotation and inter-location transfers through-out the organization facilitate planned development of careers and broaden the outlook of employees. The implementation of Online Human Resource Management System has reduced the time for settlement of employees' various claims and benefits. The industrial relations in the company remained harmonious, peaceful and cordial during the year. Employees' participation has been ensured through information sharing with employees, seeking their support, suggestions and co-operation. The company continues to align its HR strategies with organizational strategies.

(i) TRAINING OF EMPLOYEES

Your company organizes various developmental programmes for its employees in the areas of behavioural, managerial skills and core competencies. These progammes organized by the Company are either in-house or through premier management & engineering institutions; which enable the employees to keep themselves abreast with the latest developments in the areas of their operations. In addition to above, NHPC also sponsors its executives on regular basis to acquire higher qualification and specialization to enhance their productivity and effectiveness.

(ii) EMPLOYEE STRENGTH

The employee strength of the company as on March 31, 2020 was 6,131 (3,380 executives, 168 supervisors & 2,583 workmen).

(iii) WELFARE MEASURES FOR WOMEN EMPLOYEES

The number and percentage of women employees as on March 31, 2020 is given at **Table 14**.

Table 14: Particulars of women employees

Total no. of employees as on 31.03.2020	No. of women employees	% of overall employee strength
6,131	649	10.59

Steps taken for the welfare of women employees:

- Women employees are regularly nominated to various programmes/seminars on women empowerment and other issues related to women.
- Crèche facility has been provided for the infants of the employees posted at Corporate Office.
- Internal Complaints Committee has been constituted to examine the grievances/ complaints relating to sexual harassment reported by women employees at various locations of the company.
- Child care leave with pay up to 730 days is being provided to women employees for taking care of two children up to the age of 18 years (no age limit in respect of child with minimum disability of 40%) for rearing or to look after any of their needs like examination, sickness etc.
- Maternity leave is being provided as per service rules.
- Women employees have option to declare parents/parents-in-law as their dependents under medical rules.
- Relaxations are given to women employees in attendance timings at Corporate Office.
- Women representatives are nominated on selection board/committee constituted for promotion/recruitment of employees.
- WIPS (Women in Public Sector Forum) Cell has been constituted in Corporate Office.

(iv) WELFARE MEASURES AND RESERVATION FOR SCHEDULED CASTE (SC), SCHEDULED TRIBE (ST) AND OTHER BACKWARD CLASSES (OBC)

NHPC is taking care of socio-economic development of SC/ST/OBC and weaker section of the society at its various projects/power stations situated in remote areas. Adequate budget has been allocated for schools and colleges located at various SC/ST/OBC populated areas near its projects/power stations.

As per the guidelines issued by DoPT from time to time, SC/ST/OBC candidates are provided reservation and relaxation in direct recruitment. The relaxed standard and reservation is also applicable to SC/ST employees, while considering them for promotion. The company's management discusses with SC/ST/OBC employees, the issues related to them in periodical meetings. A SC/ST/OBC Cell has been set up for the welfare of SCs/STs and OBCs headed by separate Liaison Officers.

Representation of SC/ST/OBC employees is given at **Table 15**.

Table 15: Particulars of SC/ST/OBC employees

Total no. of employees as on 31.03.2020	Representation					
	SC	% age	ST	% age	OBC	% age
6,131	892	14.55	384	6.26	883	14.40

(v) WELFARE MEASURES FOR DIFFERENTLY ABLED EMPLOYEES:

Representation of differently abled employees is given at **Table 16**.

Table 16: Particulars of differently abled employees

Total no. of employees as on 31.03.2020	Differently abled employees			% of differently abled employees	
	VH	HH	OH	Total	%age
6,131	11	3	103	117	1.91

VH=Visual Handicap, HH=Hearing Handicap, OH=Orthopedic Handicap

Steps taken for the welfare of differently abled employees:

The reservation and relaxation has been provided to differently abled candidates/employees in direct recruitment and promotions as per guidelines issued by DoPT/Ministry of Social Justice & Empowerment from time to time. In addition to above, following welfare schemes have also been extended to differently abled employees:-

- Differently abled employees as well as employees who are care giver to dependent child are exempted from rotational transfer. These employees are given option about their preference in place of posting at the time of transfer/promotion.
- Financial assistance is provided to employees (who get physically handicapped while in service) for vocational training.

- Reimbursement of expenses for purchase of hearing aid is given to hearing impaired employees/their dependents.
- Reimbursement of the cost of artificial limbs and interest free loan for it is being given to employees/their dependents.
- Restriction of age is not applicable in respect of physically/mentally retarded children for considering them as dependents.
- Lifetime medical facility to the mentally or physically dependent children having 40% or more of one or more disabilities in respect of retired/deceased employees is being provided under NHPC retired Employees' Health Scheme.

13. ENVIRONMENTAL PROTECTION AND CONSERVATION, TECHNOLOGICAL ABSORPTION, RENEWABLE ENERGY DEVELOPMENTS & FOREIGN EXCHANGE CONSERVATION

(i) Environment Protection and Conservation:

Your company has "Corporate Environment Policy" (CEP) which aims to address the environmental and social concerns for the sustainable development of conventional & non-conventional sources of energy. Major highlights of CEP are to integrate environmental considerations into planning, execution and operation of projects, to undertake the post–construction impact assessment studies and to undertake unique voluntary initiatives beyond statutory obligations.

NHPC also makes efforts to create conditions so that economic growth and environmental preservation become compatible in the long run. Environmental Impact Assessment (EIA) for NHPC projects is undertaken during investigation stage to identify probable impacts on environment. Based on the findings of EIA studies, Environmental Management Plans (EMPs) are proposed and implemented to compensate the adverse impacts of the project by taking necessary measures like, compensatory afforestation, catchment area treatment, bio-diversity conservation, green belt development, fishery management, rejuvenation of dumping and quarry sites including resettlement & rehabilitation, etc.

Environment and Diversity Management Division has been established at the Corporate Office to monitor and facilitate implementation aspects of environmental safeguard measures at all the projects.

Compliance under Corporate Environmental Policy:

Environment Management Cells have been constituted at all projects / power stations of your company, for effective implementation of EMPs and voluntary initiatives. Various voluntary initiatives have been taken up at many NHPC Projects / Power Stations for Waste Management, Water Conservation and Energy Conservation. Six monthly progress reports for various Projects / Power Stations for period ended March, 2019 and September, 2019 were submitted to MoEF&CC and its concerned Regional offices. These reports were also uploaded on the website of the Company i.e. www.nhpcindia.com.

The company also conducts post-construction Environment Impact Assessment Studies (EIA) to evaluate the effectiveness of the management plans implemented during the course of construction of the project.

(ii) Renewable Energy Developments:

Your company is diversifying its activities to explore renewable energy projects such as solar and wind power projects. The details of renewable energy projects are given in the Directors' Report.

(iii) Foreign Exchange Conservation:

In accordance to "Make in India" policy of Government of India, your company is making efforts to encourage the participation of local firms in the bidding process. The participation of local firms as well as Micro & Small Enterprises helps in conservation of foreign exchange and growth of Indian industry at large.

(iv) Technology Absorption:

Information regarding technology absorption has been included in the annexure to the Directors' Report.

14. CORPORATE SOCIAL RESPONSIBILITY

Information regarding Corporate Social Responsibility has been included in the Directors' Report.

15. CAUTIONARY STATEMENT

The views and forward-looking statements contained in this report are based on reasonable assumptions and subject to certain risks and uncertainties that could cause actual results to differ from those reflected in such statements.

Readers are requested to review and confirm with other information in this report and in the company's periodic reports. The company undertakes no obligation to publicly update or revise any of these forward-looking statements whether as a result of new information, future events or otherwise. The financial figures shown above are based on the audited results of the company.

For and on behalf of the Board of Directors

(Abhay Kumar Singh)
Chairman and Managing Director
DIN 08646003

Date: August 27, 2020
Place: Faridabad