



Management Discussion and Analysis Report

Industry structure and Development

Energy

India is the fourth largest consumer of energy in the World after USA, China and Russia but it is not endowed with abundant energy resources. It must, therefore, meet its development needs by using all available domestic resources of coal, uranium, oil, hydro and other renewable resources, and supplementing domestic production by imports. Meeting the energy needs of achieving 8-9%, economic growth while also meeting energy requirements of the population at affordable prices therefore presents a major challenge. It calls for a sustained effort at increasing energy efficiency to contain the growth in demand for energy while increasing domestic production as much as possible to keep import dependence at a reasonable level.

Energy intensity, defined as the energy input associated with a unit of Gross Domestic Product (GDP), is a measure of the energy efficiency of a Nation's economy. India's energy intensity has been declining over the years. National Mission on Energy Efficiency (NMEE) has been launched to improve energy efficiency in all areas of the economy including power, transport, urban housing and consumer goods. As a part of Clean Energy Mechanism which is a global initiative, a number of measures are being planned for improving efficiency in lighting by use of Light-Emitting Diodes (LEDs) and super efficient appliances.

In the Evolving Transition (ET) scenario, World GDP more than doubles by 2040, driven by increasing prosperity in fast-growing emerging economies. This rising prosperity leads to an increase in global energy demand, although the extent of this growth is offset by accelerating gains in energy efficiency. Industrial demand for energy accounts for around half of the increase in energy consumption. The world continues to electrify, with almost 70% of the increase in primary energy is met by the power sector. China and India account for half of the growth in global energy demand. Renewable energy is the fastest-growing energy source, accounting for 40% of the increase in primary energy. The energy mix by 2040 will be the most diversified the world would have ever seen.

Coal continues to provide the main source of energy supporting India's economy, accounting for 45% of the energy demand, as India seeks to provide access to electricity to its entire population. In the ET scenario, the broad structure of the fuel mix in the Indian power sector in 2040 is broadly similar to the global trend with renewable energy sector growing rapidly in the years to come.

Power

According to the IMF World Economic Outlook, the growth projections of India are at 7.4% for the year 2018-19 and 7.8% for the year 2019-20. Development of an efficient power generation and distribution system could pave a way for achieving the sustained economic growth. Indian power sector is undergoing a significant change that has redefined the industry outlook. Sustained economic growth continues to drive electricity demand in India. The Government of India is taking all initiatives to make India as a global manufacturing hub so as to attain the sustained economic growth by implementing the 'Power for all' scheme with an objective to strengthen the power supply infrastructure and make 24x7 reliable and quality power available to all households, industry, commercial businesses, public needs, agriculture and any other electricity consuming entity in the competitive business environment.

Power-Installed Capacity

Total installed capacity of power sector in India is 3,44,002 MW (31st March, 2018), of which thermal sector contributes 2,22,906 MW constituting to 65% and Renewable Energy (RE) sector contributes 69,022 MW constituting to 20.10%. In the thermal sector, Coal & lignite share is 1,97,172 MW constituting 57.3%. During the XII Plan period, up to March, 2017, the capacity addition was 99.21 GW against the target of 88.54 GW. The share of power from Renewable Energy Sources (RES) has increased substantially with a capacity addition of 114.32 GW of as on 31.03.2018. In order to promote power generation through RES, the Government of India is offering various incentives based on generation of power, capital and interest subsidies, viability gap funding etc. The Renewable Purchase Obligations (RPO) stipulated by the Government, waiving off of Transmission System charges and losses for inter-state sale of solar and wind power for projects to be commissioned by March 2019 are also the major driving force in India to promote the renewable energy sector.



Demand and Production

Central Electricity Authority (CEA) has reported that India's per capita power consumption is among the lowest in the World. The 18th Electricity Power Survey (EPS) projected a per capita electricity consumption of 1500 kWh by 2020-21 which is currently in the order of 1075 kWh. The overall generation (generation from grid connected renewable sources) in the country has been increased from 1110.458 BU during 2014-15 to 1306.614 BU during 2017-18.

The performance of category-wise power generation during the year 2017-18 was that thermal increased by 4.27 %, Hydro reduced by 3.07 %, Nuclear increased by 0.87% and Renewable increased by 23.48%. The energy generation from conventional sources during the year 2017-18 was 1205.921 BU (provisional), with a growth of 3.95% over the previous year, with an average PLF of 60.67 %, meeting the demand of 1212.134 BU leaving a deficit of 8.567 BU.

The GOI has also planned to achieve 175 GW capacity in renewable energy by 2022, which includes 100 GW of solar power and 60 GW of wind power and also is preparing a 'rent a roof' policy for supporting its target of generating 40 GW of power through solar rooftop projects by 2022.

Coal and Lignite

India is the largest growth market for coal, with its share of global coal demand more than doubling from a little over 10% in 2016 to around a quarter by 2040.

Fossil fuels remain the dominant source of energy powering the global economy, providing around 60% of the growth in energy and accounting for almost 80% of total energy supply in 2035.

Coal, Oil and Gas are the primary commercial energy sources with coal being the largest source of energy in India. About 70% of the coal reserves of the country are from the States of Odisha, Jharkhand and Chhattisgarh. Coal also produced from mines available in the States of Andhra Pradesh, Madhya Pradesh, Maharashtra, Paschim Banga and Bihar. The most abundant fossil fuel of India, the coal, continues to be the dominant fuel in electricity generation capacity mix firing.

Coal

Coal reserves

India is the third largest coal resource in the world after China and the USA. In India the coal deposits are mainly found in the states of Jharkhand, Odisha, Chhattisgarh, Paschim Banga, Madhya Pradesh, Telangana and Maharashtra.

The details of Coal Resources as on 01.04.2017 are as follows:

(in Million tonnes)

State	Measured (proved)	Indicated	Inferred	Total	% to Total
Andhra Pradesh	0.00	1149.05	431.65	1580.70	0.50
Arunachal Pradesh(T)	31.23	40.11	18.89	90.23	0.03
Assam	464.78	57.21	3.02	525.01	0.17
Bihar	0.00	0.00	1353.5	1353.50	0.43
Chhattisgarh	19997.11	34462.15	2201.9	56661.16	17.98
Jharkhand	44340.59	31876.40	6222.53	82439.52	26.16
Madhya Pradesh	11268.69	12759.67	3644.84	27673.20	8.78
Maharashtra	7038.20	3157.75	2063.21	12259.16	3.89
Meghalaya (T)	89.04	16.51	470.93	576.48	0.18
Nagaland (T)	8.76	0.00	401.69	410.45	0.13
Odisha	34809.86	34059.77	8415.21	77284.84	24.52
Sikkim	0.00	58.25	42.98	101.23	0.03
Uttar Pradesh	884.04	177.76	0.00	1061.80	0.34
Paschim Banga	13723.15	12954.46	4989.61	31667.22	10.05
Telangana	10402.26	8542.20	2519.85	21464.31	6.81
Total	143057.71	139311.29	32779.81	315148.81	100.00

Source: Indian Coal and Lignite Resource Inventory 2017 by Geological Survey of India (GSI).



Coal Production

Total Coal Production during the year 2017-18 in India was 677.48 MT against a target of 731.10 MT.

Lignite

Lignite reserves

In India lignite deposits is confined in the States of Tamil Nadu, Gujarat, Rajasthan, Puducherry, Jammu & Kashmir and Kerala where the coal is almost completely absent. Tamilnadu contributes major share of lignite resources.

The projected capacity of lignite based power stations at the end of XII Plan (2017) was 7491 MW against which the capacity of 6585 MW achieved till March 2018.

The details of State-wise resources of lignite as on 01.04.2018 (Provisional) are as under.

(in Million tonnes)

State	Measured (Proved)	Indicated	Inferred	Total	% to Total
Pondicherry	0.00	405.61	11.00	416.61	0.92
Tamil Nadu	4093.53	22648.33	9147.87	35889.74	79.02
Rajasthan	1168.53	3029.78	2150.76	6349.07	13.98
Gujarat	1278.65	283.70	1159.70	2722.05	5.99
Jammu & Kashmir	0.00	20.25	7.30	27.55	0.06
Kerala	0.00	0.00	9.65	9.65	0.02
Paschim Banga	0.00	1.13	2.80	3.93	0.01
Grand Total	6540.71	26388.80	12489.08	45418.60	100.00

Demand and Production

As per the Report of the Working Group on Coal & Lignite for formulation of XII Five Year Plan 2016-17, the projected demand of lignite at the terminal year of XIII Plan (2021-22) is 108.62 MT and projected lignite production for the same period is 104.55 MT.

Your Company produced 25.15 MT of lignite from its Neyveli and Barsingsar mines, others accounted for 21.15 MT, thus totalling to 46.65 MT in India for the year 2017-18 against a total production of 45.32 MT for the year 2016-17 registering a growth of 2.93%. Major part of the lignite produced in the country is used for power generation and the demand for lignite is mainly dependent on existing and proposed thermal power stations.

Underground Coal Gasification (UCG)

For developing UCG projects in India, your Company has signed a MOU with ONGC for carrying out preliminary studies in some of the lignite blocks located in Rajasthan and Gujarat and to assess the suitability of UCG. Recently, on the direction of MOC, your Company has identified some lignite blocks for UCG in the States of Rajasthan and Gujarat.

The Ministry of Coal, GOI vide Gazette notification dated 25.11.2016 has reserved the following lignite blocks in favour of your Company for the purpose of Underground Coal Gasification (UCG).

Block	Area	Geo. Reserve
Dip side Tadkeshwar & Dungra, Surat District, Gujarat	36.39 km ²	215.60 MT
Dip side Valia & Rajpardi, Bharuch District, Gujarat	90.28 km ²	500 MT (Prognostigated)

To assess the suitability of the UCG lignite blocks, your Company has initiated action for engaging an expert agency for carrying out technical suitability study and UCG pilot project in the above blocks.



SWOT Analysis

Strength

- Availability of lignite and water to facilitate lignite based thermal power generation in Neyveli.
- Assured fuel security to its planned downstream coal based thermal power stations
- The Company has best exposure in operation & maintenance in open-cast mining, power generation (both in thermal and renewable energy sectors).
- Harmonious industrial relations.
- Pioneering position in open-cast lignite mining with Continuous Mining Technology (i.e utilising Specialised Mining Equipments- SME) and lignite fired & coal fired power station.
- Experienced Management team with committed and experienced work force.
- Continuous increase in per capita electrical power consumption.
- Sound financial health.

Weakness

- Lignite Mines in Neyveli moving to the areas of tougher geo-mining conditions necessitating pumping of the ground water occurring below the lignite seam for safe mining
- Aging thermal power plants

Opportunities

- Government of India's commitment to improve the quality of life of its citizens through higher electricity consumption.
- GOI aim to provide each household access to electricity, round the clock and improve the quality of life of people through 24x7 power supply.
- Rise in the per capita consumption of power.
- Launch of 100 smart cities mission by GOI.
- Invest in promoting Green Energy
- Trading of Power in the Market.
- Requirements of Charging Stations for eCart.

Threats

- Resistance to land acquisition, demand for enhanced compensation, demand for employment.
- Higher cost for rehabilitation & resettlement measures for land evictees.
- Extreme mining conditions resulting from hydro geological, geo-technical and other conditions.
- Delay in commissioning of new projects.
- Huge Surrender of Power by the beneficiaries and consequently under utilisation of Thermal Capacity.
- Challenge posed by Renewable energy to Thermal Generation.
- Challenges posed by Discoms in not honouring the signed PPA's

Segment-wise performance

Covered in the main report.



Outlook

Your Company is presently operating four lignite mines, three at Neyveli in the State of Tamil Nadu and one at Barsingsar in the State of Rajasthan with a total installed capacity of 30.60 MTPA. Your Company and its Subsidiary have been allotted with the Coal Blocks to meet the fuel requirements of the downstream coal based power plants as detailed in this report. The strength of the Company lies in having the dedicated fuel security for both lignite based and coal based power plants, which minimises the risk to a great extent.

Your Company is presently operating five Thermal Power Stations, four at Neyveli and one at Barsingsar and taking into account the renewable energy projects of 491 MW, commissioned so far, the total installed capacity is 3731 MW on Standalone basis and including its Subsidiary, the total power generating capacity is 4731 MW.

The Corporate Plan Document envisages for increasing the overall Lignite production to 62.15 MT, Coal production to 31.00 MT and Power generation to 21011 MW by the year 2025.

The details of Projects under construction / implementation / formulation are as under:

Mining Sector

Lignite Mining

Bithnok Mine Project (2.25 MTPA)

Your Company is developing Bithnok Mine of 2.25 MTPA at a cost of ₹ 513.63 crore to supply lignite to the Bithnok Thermal Power Station of 250 MW capacity. The Mining Plan and the Mine Closure Plan have been approved by the Ministry of Coal (MoC). The Ministry of Environment, Forest & Climate Change (MoEF&CC) has accorded Environment Clearance and the action has been taken to obtain the Mining Lease. The Government of Rajasthan (GoR) has accorded approval for the allotment of 1290.647 ha of Government land including 52.245 ha of Compensatory Afforestation land. Compliance report for obtaining Stage-II Forestry clearance submitted. The cumulative expenditure incurred up to 31st March, 2018 was ₹ 170.82 crore.

Hadla Mine Project (1.90 MTPA)

As Members may be aware your Company is implementing a lignite mine project in Hadla (1.90 MTPA), Rajasthan at a cost of ₹ 522.45 crore to supply lignite to the Barsingsar Thermal Power Station Extension Project of 250 MW under implementation. Mining Plan including Mine Closure plan have been approved by Ministry of Coal. MoEF&CC has accorded Environmental Clearance. The cumulative expenditure incurred up to 31st March 2018 was ₹ 7.47 crore.

Expansion of Mine-I - (10.50 MTPA) (Area Expansion) & Expansion of Mine-IA (from 3.00 MTPA to 7.00 MTPA) and Barsingsar Expn. of 0.40 MTPA

Your Company is implementing area expansion of 10.50 MTPA of Mine-I and Expansion of Mine-IA from 3.00 MTPA to 7.00 MTPA by adding contiguous lignite blocks to meet the fuel requirement of the Neyveli New Thermal Power Plant, TPS-I Expansion and TAQA at a cost of ₹ 709.06 crore. It is also proposed to expand the existing Barsingsar Mine marginally from 2.1 MTPA to 2.5 MTPA.

Ministry of Coal has accorded approval for the mining plan for the above project and Ministry of Environment Forest & Climate Change (MoEF&CC) has accorded Environmental Clearance. Mine development activities in Mine-IA are under progress and the cumulative expenditure incurred up to 31st March, 2018 was ₹ 380.26 crore.

Mine-III Project (11.50 MTPA)

As stated in the last year's Directors' Report, in order to meet the fuel requirement of Thermal Power Station-II Second Expansion (1320 MW) Project (Phase I), your Company has proposed to develop Mine -III at Neyveli, South of Mine II (11.50 MTPA) at an estimated cost of ₹ 2130.30 crore. Mining Plan and Feasibility Report have been submitted to MoC for approval. Environmental Appraisal Committee of MoEF & CC has approved the Terms of Reference (TOR). The cumulative expenditure incurred up to 31st March, 2018 was ₹ 25.51 crore.



South of Vellar & Palayamkottai (11.50 MTPA)

In order to meet the fuel requirement of Phase II of TPS-II Second Expn. of 1320 MW, it is proposed to develop South of Vellar & Palayamkottai lignite blocks for a capacity of 11.50 MTPA.

Coal Mining

Talabira II and III Coal Block (20.00 MTPA)

Members may be aware that the Government of India has allotted Talabira II & III Coal Block of capacity 20.00 MTPA in the State of Odisha to meet the fuel requirements of the proposed Odisha TPS and NTPL. It is proposed to develop the Mines at an updated estimated cost of ₹ 2401.07 crore (Oct. 2017 base).

In order to develop and operate the above Coal Blocks, Talabira (Odisha) Mining Private Limited has been appointed as the Mine Developer Operator (MDO) and as per the agreement entered into with the MDO, the coal production from the above Mines is expected to be commenced from the year 2019-20. The cumulative expenditure incurred up to 31st March, 2018 was ₹157.35 crore.

Pachwara South Coal Block (11.00 MTPA)

NUPPL, the Subsidiary of your Company has been allotted with the Pachwara South Coal Block, in the State of Jharkhand, with a capacity of 11.00 MTPA. This block is proposed to be developed by NUPPL through MDO. The cumulative expenditure incurred up to 31st March 2018 was ₹ 4.83 crore.

Power Sector

Lignite based Projects

Neyveli New Thermal Power Project (2 x 500 MW)

Your Company is implementing a lignite based 1000 MW thermal power project at Neyveli as a replacement to 600 MW TPS-I, the oldest lignite fired Thermal Power Station in the Country, at a revised sanctioned capital cost of ₹ 7080.41 crore and with a revised schedule of commissioning of Unit- I in October, 2018 and Unit – II in December, 2018, though all out efforts are being made to commission the Units by July 2018 and September 2018, respectively. The cumulative expenditure incurred in the project up to 31st March, 2018 was ₹ 5455.94 crore.

Bithnok Thermal Power Project (250 MW) & Barsingsar Thermal Power Station Extension (250 MW)

Members may be aware that the Company is in the process of setting up the Bithnok Thermal Power Project (1 x 250 MW) in the State of Rajasthan, at a cost of ₹ 2196.30 crore and Barsingsar Thermal Station Extension Project at a cost of ₹ 2112.59 crore through Engineering Procurement Construction (EPC) mode, with the commissioning of both the Projects by August, 2020. The cumulative expenditure incurred up to 31st March, 2018 was ₹170.99 crore in respect of Bithnok Project and ₹156.28 crore for the Barsingsar Extn. Project.

As informed in the last Directors' Report, both the above Bithnok and Barsingsar Extn. Power Projects have been put on hold based on the communication received from Govt. of Rajasthan and Rajasthan Discoms that they are not in a position to buy power from these projects. As Members are aware, the issue has been deliberated at the level of Committee of Secretaries (CoS) under the Chairmanship of Cabinet Secretary, Government of India and the COS has suggested for exploring the possibility of reduction in the power tariff taking into accounts on its viability. The Power Purchase Agreement (PPA) entered into by Discoms and the matter relating to the claim, if any, that could be made by the EPC Contractor are also being deliberated with the Discoms/ COS and that the Discoms are expected to review their earlier decision shortly.

Thermal Power Station–II Second Expansion (2 x 660 MW) - Phase - I and (2x660 MW) - Phase - II

Your Company has also proposed to set up 2 x 660 MW (Phase I) with super-critical technology at an estimated cost of ₹ 8733.49 crore. As per the Feasibility Report, the Unit I of the Phase-I of the Project is expected to be commissioned



within 50 months from the sanction of the Project and the second Unit at an interval of 6 months. Public hearing is completed and the environmental clearance is awaited. The tender floated for the Package Contracts are in the process of evaluation. The cumulative expenditure incurred up to 31st March, 2018 was ₹ 14.11 crore.

Ministry of Power has granted exemption from the tariff based competitive bidding for the above project and has also allowed allocating the power from this Project as per the Central formula for allocation of Power to the constituents of Southern region. The Power Purchase Agreements (PPAs) have already been signed with the Southern DISCOMs except Karnataka DISCOMs.

Coal based Projects

Talabira Thermal Power Project (4000 MW)

Your Company is implementing 3 x 800 MW (Phase-I) with Ultra Super Critical Technology as a pithead power station to the Talabira II & III Coal blocks, at an estimated cost of ₹ 17636.78 crore and further proposed to install 2 x 800 MW as Phase II in Tareikela and Kumbhari villages of Jharsuguda District, Odisha.

As per the Feasibility Report, the Unit I of the Project is expected to be commissioned within 52 months from the sanction of the Project and the second & the third Units at an interval of 6 months each thereafter. Out of the proposed capacity of 2400 MW, 1500 MW will be supplied to Tamilnadu, 400 MW to Kerala, 100 MW to Puducherry and for the balance 400 MW, the State of Odisha has expressed interest in availing the same. Ministry of Power is being approached, seeking exemption from tariff based bidding and approval for the above allocation of power.

Industrial Promotion and Investment Corporation of Odisha Limited (IPICOL) has issued the 'in-principle' approval for land and water for the project while the Rehabilitation & Periphery Development Advisory Committee (RPDAC) of Government of Odisha has accorded approval for the proposed R & R Policy besides the updated Socio-Economic Survey Report, the proposed R & R Site and site for Office & Township. Ministry of Environment, Forest & Climate Change has issued Terms of Reference for conducting EIA Study. The cumulative expenditure incurred up to 31st March, 2018 was ₹ 1.01 crore.

Renewable Energy Projects

Tamil Nadu 500 MW Solar Power Project

As was stated in the last Directors' Report, in order to enter into renewable energy in a major way, your Company is implementing 500 MW Solar Power Projects in various parts in the State of Tamil Nadu under the Solar Developer & Operator (SDO) Mode at a cost of ₹ 2072.95 crore (including O & M for 15 years after the warranty period). The SDO contracts have been awarded to six firms and the scope of the contract includes land procurement and power evacuation establishments apart from installation of the projects. As stated earlier, as on date 300 MW of Solar Power Projects out of 500 MW have been commissioned and the balance capacity of 200 MW is expected to be commissioned in the current year. The cumulative expenditure incurred up to 31st March, 2018 was ₹ 1509.11 crore.

Tamil Nadu 709 MW Solar Power Project

It is a pleasure to share with the Members that for the first time in the history, your Company had participated in the tariff based bidding floated by TANGEDCO for procurement of 1500 MW solar power and your Company was awarded for 709 MW. PPA has been signed with TANGEDCO and as per the same the projects are to be commissioned before September, 2019.

As was done in the case of 500 MW Solar Projects, Six SDOs have been awarded to set up the Solar Projects at the cost of ₹ 3035.93 (including O&M for 15 years after the warranty period). As per the terms and conditions of the contract with SDOs, the entire 709 MW is required to be commissioned within 15 months from the date of award viz., by April, 2019. The cumulative expenditure incurred up to 31st March, 2018 was ₹ 39.40 crore.

Andaman Solar Power Project (20 MW)

Further to the action plan issued by the Ministry of New & Renewable Energy (MNRE) for the Andaman & Nicobar Islands and based on the tripartite MoU signed by your Company with MNRE and Andaman & Nicobar Islands



Administration, Solar PV Power Projects of 2 x 10 MW, integrated with 8 MWhr. Battery Energy Storage System (BESS) is proposed to be set up at South Andaman. The tender floated for setting up of the above Project is under finalisation. The cumulative expenditure incurred up to 31st March 2018 was ₹ 0.41 crore.

Roof Top Solar Power Project (1 MW)

Your Company has signed a MoU with Rajasthan Electronic and Instruments Limited (REIL) (Nodal Agency of MoC for Roof Top) for establishing 1 MW Roof Top Solar Power Project on the non-residential buildings in the township at Neyveli and REIL has notified the award to Enrich Energy Pvt. Ltd., Pune for installation of 1.06 MW Roof Top Solar at a value of ₹ 5.49 crore. The project is scheduled to be completed by August 2018.

Other Renewable Energy Projects

Corporate Plan Vision – 2025 of the Company envisages an addition of 4000 MW Solar generation capacity in different States and 200 MW of wind based power generation.

As stated in the Directors' Report of the last year, your Company has initiated discussions with the State Governments of Karnataka, Madhya Pradesh, Odisha and Andhra Pradesh for setting up Solar Power Projects in the respective States and in this regard necessary MOUs have been signed / Letter of Consent has been received. Subject to entering into a Power Purchase Agreement with the respective States and the viability of the Project, action will be initiated to set up solar power projects/ participate in the solar power parks notified by the State Governments, from time to time. As, GRIDCO, Govt. of Odisha was reluctant to sign PPA and preferred to adopt the tariff based bidding route for the purchase of solar power, it has been decided to cancel the tender exercise for the installation of 250 MW Solar Project in the State of Odisha.

Acquisition of Power Assets

Members may be aware that in order to have an inorganic growth, your Company as per the approved Corporate Plan aims to acquire power assets of about 3000 MW by the year 2025. The power assets of GMR Chhattisgarh Energy Limited (2 x 685 MW)(GMRCL) and Ind-Bharath Energy Utkal Limited (2x350 MW) (Ind Bharat), were under consideration and accordingly Due Diligence Study was initiated. Since Ind Bharat was not keen on the transaction, the Due Diligence Study on GMRCL was completed and the same is under scrutiny.

Acquisition of Damodar Valley Corporation's (DVC) - RTPS Project (2 X 600 MW)

As Members may be aware, earlier the Company had plans to acquire Raghunathpur Thermal Power Station (RTPS) (Phase I) of Damodar Valley Corporation (DVC), through the Joint Venture between your Company and DVC and the JV agreement was also signed in this regard. Necessary proposal was also made for obtaining sanction of Government of India through Ministry of Coal. In the meantime DVC had conveyed that they are no more interested in pursuing the JV and wanted to call off the same citing that their financial strength has improved and also that they have subsequently closed down / will be closing down few of their vintage plants. In view of the above development, it has been decided not to pursue the JV proposed with DVC.

Risks and Concerns

- Resistance to acquisition of land for mining and power projects and demand for employment by project affected persons.
- Stringent Environment norms.
- Combustion nature of Coal / Lignite.
- Financial health of major Contractors / Vendors and suppliers.
- Stringent norms prescribed by regulatory authority affecting power tariff.
- Non-approval of costs incurred during renovation leading to non-recovery of the cost.
- Pressure to regularise contract workers leading to higher manpower costs.



- Fewer responses to tenders for large contracts impacting competitiveness.
- Force majeure events, such as floods, earthquakes, cyclones etc.
- Competition consequent to deregulation in Indian power sector.
- Delay in implementation of projects.
- Restricted availability of water for power plants
- Surrendering of power by beneficiaries.
- DISCOMs not honouring the signed PPA's
- Higher Cost of Mining
- Ageing thermal power plants

Internal control systems and their adequacy

The Company has well-established internal control systems and procedures commensurate with its size and the nature of business with an approved and well laid out delegation of authority, Purchase & Contracts and Personnel Manuals. The internal audit is conducted by four external firms of Chartered Accountants covering all the offices / units and their reports are periodically reviewed by the Audit Committee. Audit Committee periodically interacts with Internal and Statutory Auditors to assess the adequacy of internal control systems and also supervises the financial reporting process through review of periodical financial Statements. Further, the accounts of the Company are subject to C & AG audit in addition to the propriety audit conducted by them.

The effectiveness of compliance of Service Rules and Office Orders is subjected to periodical HR audit carried out with an objective to identify the deficiency/deviations and for initiating appropriate corrective measures. HR audit has been carried out Unit wise, during the year focusing on evaluating the correctness / accuracy in complying with the rules and procedures on identified areas in HR in respect of a pre-determined percentage of total Service Books.

Discussion on financial performance with respect to operational performance

Covered in the main report.

Environmental Protection and Conservation, Technological conservation, Renewable energy developments, Foreign Exchange conservation

Covered in the main report.

Material developments in Human Resources / Industrial Relations front, including number of people employed

Covered in the main report.

Corporate Social Responsibility

Covered in the main report.

Cautionary Statement

Statement in the Management Discussion & Analysis Report and in the Directors' Report, describing the Company's strengths, strategies, projections and estimates are forward looking statements and progressive within the meaning of applicable laws and regulations. Actual results may vary from those expressed or implied depending upon economic conditions, Government policies and other incidental factors and hence it is cautioned not to place undue reliance on the forward looking statements.

For and on behalf of the Board of Directors

Place : Neyveli

Date : 29.06.2018

Dr. Sarat Kumar Acharya
Chairman and Managing Director