

KALEIDO SCOPE

STANDING CONFERENCE OF PUBLIC ENTERPRISES



SCOPE & IMT Hyderabad Sign MoU on 'Digital Transformation in PSEs'



National e-Meet of Women in Public Sector (WIPS) under the aegis of SCOPE

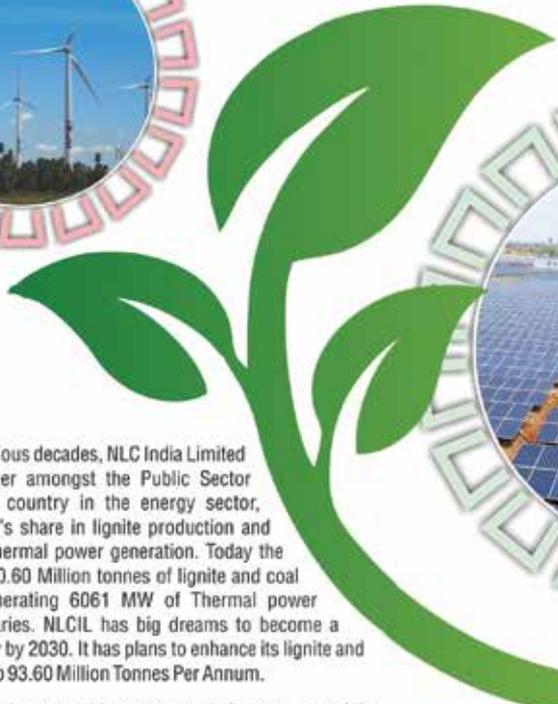


SCOPE Webinar decodes Union Budget 2022

SCOPE wishes all
Happy International Women's Day



The Lignite Giant now Ignites the Nation with Clean & Green Energy...



For more than six glorious decades, NLC India Limited has been a forerunner amongst the Public Sector Undertakings in the country in the energy sector, contributing to a lion's share in lignite production and significant share in thermal power generation. Today the company is mining 50.60 Million tonnes of lignite and coal Per Annum and generating 6061 MW of Thermal power including its subsidiaries. NLCIL has big dreams to become a 13650+ MW company by 2030. It has plans to enhance its lignite and coal mining capacity to 93.60 Million Tonnes Per Annum.

To reap the benefits of the renewable energy revolution, as a part of the National Solar Mission, Government of India has set a target to achieve 1,75,000 MW of Solar Power by 2022. NLCIL has an ambitious plan to establish 4631 MW of renewable energy projects in Tamilnadu and various states. Presently, the Company has a total renewable energy capacity of 1421 MW which includes 1370 MW of Solar Power Plants and 51 MW Wind Power Plant.

Renewable Energy Projects under operation and consideration

- NLCIL is the first CPSE to cross 1 GW capacity in solar power generation and became the member of International Solar Alliance (ISA)
- 141 MW Solar Power Projects (SPP) including Roof top solar project at Neyveli at a cost of Rs.782.24 crore.
- 1209 MW Solar Power Projects at a cost of Rs. 5343 crore at Tirunelveli, Virudhunagar, Ramanathapuram and Thoothukudi Districts of Tamilnadu. 200 KW, R&D Pilot Scale Floating SPP in Neyveli New Thermal Power Project's Raw Water Reservoir at Rs.1.16 crore.

- 20 MW SPP, integrated with 8 MWhr Battery Energy Storage System at South Andaman Island. This is the largest battery bank in India for catering the variation in solar insolation.
- A JV Company, "Coal Lignite Urja Vikas Pvt Limited" is incorporated on 10.11.2020 with Coal India Limited for establishing 3000 MW Solar Power Projects at various parts of the country.
- A 10 MW Solar Power Project in Neyveli, under Mini Smart City Scheme is on the anvil.
- 51 MW (34 x 1.5 MW) Wind Power Project at Tirunelveli District in Tamilnadu at a cost of Rs.347.14 crore.
- The company has also planned to install wind power project of 200 MW in other parts of Tamilnadu.



NLC India Limited

'Navratna' - Government of India Enterprise

Registered Office : 135, EVR Periyar High Road, Kilpauk, Chennai - 600 010.

Corporate Office : Block-1, Neyveli - 607 801, Cuddalore District, Tamil Nadu, India

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CREATING WEALTH FOR WELLBEING

Contents

Message by Chairperson..... 05

Director General's Desk 07

SCOPE News

SCOPE & IMT Hyderabad Sign MoU on 'Digital Transformation in PSEs' 08

SCOPE Webinar decodes Union Budget 2022 09

National e-Meet of Women in Public Sector (WIPS)..... 10

Interface with Stakeholders Inaugural Meeting of SCOPE 11
Health Committee held

DG, SCOPE addresses 27th Foundation Day of Lal Bahadur Shastri 11
Institute of Management

SCOPE in Media..... 12

Articles

Decarbonisation: Imperatives for India's Energy Sector..... 13
by *Vartika Shukla*

Primus inter pares – Those incredible women who operate a..... 17
hi-tech Petroleum refinery unit

Let's keep talking the truth... 20
by *Kalika Jain*

360-degree life of a Woman Oil & Gas Professional 22
by *Neha Raviraj Takpire*

Data Privacy – An Infallible Approach to Data Security in Aviation..... 24
by *Sneha Viresh Bagdiya*

Diabetes – A Silent Killer Part-1 26
by *Dr. Nupur Krishnan*

PSE News

PSE News 33-50

Personalia 50

Contents

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Message by Chairperson

At the outset, as the first lady Chairperson of SCOPE, I would like to wish all our readers a Happy International Women's Day. As we celebrate Women's Day each year on 8th of March, we must all reflect and understand the economic, social and cultural significance of women participation.

Public Sector Enterprises (PSEs) have always valued the contribution of women as an essential and significant part of the workforce that strengthens the organization. The rising number of women in leadership and strategically important roles in PSEs, is a fine reflection of PSEs' efforts in empowering the women workforce. To acknowledge the contribution of women, this issue features some interesting write-ups from women engaged in varied fields as a part of celebration of Women's Day.

Inaugurating the 32nd National Meet of Women in Public Sector (WIPS) under the aegis of SCOPE recently, I had reiterated that every woman has tremendous potential and by arming themselves with education, skills, recognising their native capabilities and working diligently towards a dedicated goal can help them become leaders of tomorrow.

Owing to strategic presence of PSEs' in all critical sectors, it is a prerequisite for them to adopt latest technologies and to be digitally up-to-date to enhance performance. Realising this, SCOPE recently signed an MoU with Institute of

Management Technology, Hyderabad (IMTH) to conduct an ambitious, research-based study on 'Digital Transformation in PSEs' that will aim to comprehend digital readiness of PSEs and the way forward.

SCOPE & ILO are also exploring to collaborate and undertake a study on "Skilling for the Future – A Study on Skills in PSEs". The study would focus on importance of skills in four priority areas of 'Inclusive Economic Growth & Employment', 'Protection of Workers', 'Social Protection' and 'Social Dialogue'.

SCOPE has also been regularly conducting workshops and programs for capacity building of PSEs and in the coming months, it is our intention to onboard renowned personalities to share best practices with the Public Sector fraternity.

Every year SCOPE celebrates the true spirit of PSEs and their socio-economic contribution in weaving the strong fabric of a prosperous and resilient India through Public Sector Day on 10th April. With just a month left for this momentous day, I look forward to your guidance and participation in observing this day and like always, seek your constant support in all our endeavours.

Soma Mondal
Chairperson, SCOPE

SCOPE FORUM OF CONCILIATION AND ARBITRATION (SFCA)

With a view to expedite settlement of disputes and reduce avoidable expenditure by PSEs, a need was felt by Standing Conference of Public Enterprises (SCOPE), an Apex Body of Public Sector Enterprises, to institutionalize the prevailing system of arbitration which led to formation of SFCA in 2003. The forum was formally inaugurated by Shri Santosh Gangwar, the then Hon'ble Minister of State for Heavy Industries & Public Enterprises and Parliamentary Affairs at SCOPE Complex on 9th January 2004.

WHY SFCA?

Empanelment of more than 400 Arbitrators/ Conciliators

- Retired Judges of Supreme Court, High Courts,
- Retd. Secretaries, Joint Secretaries of Government of India
- Chief Executives, Directors and senior officials of PSEs
- Professionals including Advocates, Chartered Accountants, Engineers & Surveyors etc.

Complete services for conducting Arbitration

- A dedicated Forum for administering, overseeing and conducting arbitration and conciliation proceedings.

Cost effective and timely dispute settlement

- Settling disputes between PSEs and their associates within shortest possible time at more economical and cheaper cost in comparison to other institutions.

Dedicated Infrastructure

- Exclusive Arbitration Hall having seating capacity of 15 persons.
- Facility of provision of halls with higher capacity in SCOPE Convention Centre at SCOPE Complex, Lodhi Road and SCOPE Minar, Laxmi Nagar, New Delhi.

Facilities and provisions

- Provision of modern equipments and facilities such as projector for live streaming of proceedings on a large screen, stationery etc.
- Arrangements of high tea/Lunch on request of the parties.

Capacity Building

- Executive development programmes and workshops on various aspects of Alternate Dispute Resolution process (ADR).
- Annual National Seminar on various aspects of Arbitration and Conciliation.



For any queries relating to SFCA, you may contact

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Associate with us and adopt SFCA Clause for resolving disputes in a cost and time effective manner!

Director General 's Desk



The recently announced Union Budget 2022 lays a visionary and progressive roadmap, reiterating impetus to infrastructure and building a new digital ecosystem for the country. To deliberate on the impacts of the budget, SCOPE organized its annual Budget program on 'Decoding the Union Budget 2022' with economic experts, which received an overwhelming response.

As a welcome move, the Securities and Exchange Board of India (SEBI) recently made separation of the roles of Chairperson and Managing Director/Chief Executive Officer (MD/CEO) voluntary for top 500 listed companies. SCOPE commends this step as a stepping stone in enabling operational efficiency and flexibility in organizations.

With the ever-transformative nature of work, the adaptability and pace at which organisations inherit new and emerging technologies, can give them a competitive edge over others. Understanding the importance of Public Sector Enterprises (PSE)'s readiness to leverage emerging technologies, SCOPE recently signed an MoU with Institute of Management Technology,

Hyderabad (IMTH) to conduct a research-based study on 'Digital Transformation in PSEs.'

This study will not focus on data analysis alone, but move beyond it and decode internal efficiencies, external components of digitalization and ways to accelerate digital transformation in PSEs.

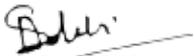
As the world celebrates International Women's Day on March 8th, we at SCOPE have always believed that it is truly their empowerment that can propel the economy, enrich organizations and evolve the society. Recently, I was happy to be part of an esteemed panel of women leaders at the 32nd National Meet of WIPS which was attended by around 1000 women employees, who resounded that self-actualization is key to attaining success.

Recently, I was invited as Chief Guest on Foundation Day celebrations of Lal Bahadur Shastri Institute of Management, Delhi, where I addressed and enthused young minds to continuously upskill themselves and be enthusiastic, honest in their work.

SCOPE has always prioritized health and well-being of PSE employees and for creation of a future roadmap, SCOPE has constituted SCOPE Health Committee (SHC). The inaugural meeting of this committee was held recently with Senior members of PSEs to deliberate on way forward in the same.

In the coming months, SCOPE will continue to generate more opportunities of learning and development in PSEs, enroute its attempt to create a niche for PSEs globally.

Programmes & Initiatives launched (since last issue of KALEIDOSCOPE)
SCOPE & Deloitte webinar on 'Decoding the Union Budget' - 3rd February, 2022
SCOPE and Institute of Management Technology, Hyderabad (IMTH) sign MoU on 'Digital Transformation in PSEs - 14th February, 2022
Inaugural Meeting of SCOPE Health Committee - 15th February, 2022
Programmes & Initiatives in offing
SCOPE celebrates International Women's Day - 8th March, 2022
Finalisation of SCOPE-CCL, USA Study to Develop Future Fluent Leaders in PSEs
Release of SCOPE Webpage on Climate Change Mitigation
SCOPE & GIZ, Germany Training on 'Low-Carbon and Climate-Resilient Pathways for Indian Public Sector Enterprises - Training and Capacity Needs Assessment' for Western Region PSEs
SCOPE celebrates Public Sector Day- 10th April, 2022


Atul Sobti

Director General, SCOPE

SCOPE & IMT Hyderabad Sign MoU on 'Digital Transformation in PSEs'



Mr. Atul Sobti, DG, SCOPE; Dr. K Sriharsha Reddy, Director, IMTH; Mr. O. P. Singh, Director (Technical & Field Services), ONGC & Chairperson, SCOPE Committee on Digital Transformation; Mr. Jayesh Ranjan, Principal Secretary I&C and IT, Govt. of Telangana and Dr. S. K. Joshi, Advisor, Centre for Sustainability & CSR, IMTH and Former Chief Secretary, Govt. of Telangana during the MoU signing.

A Memorandum of Understanding (MoU) was signed between SCOPE and Institute of Management Technology, Hyderabad (IMTH) to conduct a research-based study on 'Digital Transformation in PSEs' on 14th February, 2022. The MoU was signed virtually by Mr. Atul Sobti, DG, SCOPE and Dr. K Sriharsha Reddy, Director, IMTH, in the presence of Mr. Jayesh Ranjan, Principal Secretary I&C and IT, Govt. of Telangana; Dr. S. K. Joshi, Advisor, Centre for Sustainability & CSR, IMTH and Former Chief Secretary, Govt. of Telangana; and Mr. O. P. Singh, Director (Technical & Field

Services), ONGC & Chairperson, SCOPE Committee on Digital Transformation.

Mr. Atul Sobti emphasised that digitalization is one of biggest differentiators in an organisation's performance today, and stipulated that the study aims at moving beyond data analysis and understanding internal efficiencies, external components of digitalisation and ways to accelerate digital transformation in PSEs.

Dr. K. Sriharsha Reddy said that as PSEs are major contributors in all strategic sectors of the economy, therefore, this study aims at decoding PSEs' readiness to

leverage emerging technologies.

Dr. S. K. Joshi congratulated SCOPE and IMTH on undertaking this ambitious study with PSEs, who are not only strategic partners in country's economic growth but also trend-setters in imbibing emerging technologies.

Mr. Jayesh Ranjan stated, that as the pace of technology has increased manifold, in this era of perform or perish, PSEs must aim for rapid adoption of new technologies.

Mr. O.P. Singh, highlighted the importance of the study for the PSEs, to better comprehend the need for digital efficacy.

SCOPE Webinar decodes Union Budget 2022



(From Left to right) Mr. S. Sakthimani, Director (Finance), FACT; Prof. N. R. Bhanumurthy, Vice - Chancellor, Dr. B. R. Ambedkar School of Economics University, Bengaluru; Mr. Atul Sobti, DG, SCOPE; Senior Partners and Subject Matter experts from Deloitte during the Webinar.

Unravelling the Union Budget 2022, SCOPE organised a webinar on 'Decoding the Union Budget 2022' on 3rd February, 2022. Prof. N. R. Bhanumurthy, Vice-Chancellor, Dr. B. R. Ambedkar

School of Economics University, Bengaluru; Mr. Atul Sobti, DG, SCOPE and Mr. S. Sakthimani, Director (Finance), FACT, addressed the webinar. A comprehensive presentation on various aspects of the Budget was shared by senior partners and subject matter experts from Deloitte. About 400 participants, including board members and senior officials from PSEs attended the webinar through SCOPE's various platforms.

Addressing the participants, Prof. N. R. Bhanumurthy deliberated upon the macro perspectives of the Budget and said it unveils a roadmap of the economy for the next 25 years with renewed impetus to growth and development issues. He also spoke about the strategic role of PSEs in achieving sustainable growth and making

the nation a 5 trillion economy.

Calling the budget growth centric, Mr. Atul Sobti said that as the focus of the Budget this year is on infrastructure development, digital ecosystem, skill development, energy transitions, and Ease of Doing Business 2.0, PSEs being present in core sectors will act as catalysts in the overall growth of the economy. He also added that SCOPE will continue to make concerted efforts to offer a platform for dialogue and capacity building for PSEs.

Mr. S. Sakthimani, in his address, while appreciating initiatives undertaken by SCOPE, emphasized that PSEs can be strategic partners in the country's high trajectory growth by propelling digitalisation and start-up ecosystem.

DG, SCOPE addresses 27th Foundation Day of Lal Bahadur Shastri Institute of Management



Mr. Atul Sobti, DG, SCOPE addressing participants during the foundation day celebration.

Mr. Atul Sobti, DG, SCOPE, was invited as the Chief Guest at the 27th Foundation Day celebrations at the Lal Bahadur Shastri Institute of Management (LBSIM) on 23rd February, 2022. DG, SCOPE, in his address, motivated the students on the emerging trends and opportunities in the business world. Mr. Sobti also emphasized the need for continuous skill development in the VUCA world along with pursuing the career with enthusiasm, honesty, and integrity. While mentioning that students need to invoke their brilliance and competency for overall nation-building, Mr. Sobti said, "Shastri Ji envisioned to see the youth of India growing and making their country proud. This institute focuses on making its students vibrant and strong." The foundation day was also addressed by Mr. Anil Shastri, Chairman, Board of Governors, LBSIM, and Mr. Suhail Sameer, CEO, BharatPe.

National e-Meet of Women in Public Sector (WIPS)



(From Left to Right) Mr. Atul Sobti, DG, SCOPE; Ms. Rekha Sharma, Chairperson, National Commission for Women; Ms. Soma Mondal, Chairman, SAIL and Chairperson, SCOPE; Ms. H. K. Joshi, CMD, SCI; Ms. Vartika Shukla, CMD, EIL; Ms. Alka Mittal, CMD, ONGC; Dr. Dharini Mouli, President APEX and other members of WIPS during the e-Meet.

Forum of Women in Public Sector (WIPS) under the aegis of SCOPE organized its 32nd National Meet 2022 virtually, on the theme 'Self Actualization, a Step Towards Power - sharing' for Public Sector women employees on 11th February 2022. Ms. Rekha Sharma, Chairperson, National Commission for Women; Ms. Soma Mondal, Chairman, SAIL and Chairperson, SCOPE; Mr. Atul Sobti, DG, SCOPE addressed the participants during the inaugural session. Ms. Vartika Shukla, CMD, EIL; Ms. Alka Mittal, CMD, ONGC; Ms. H. K. Joshi, CMD, SCI also addressed the participants in following sessions in the presence of WIPS Apex body members, Dr. Dharini Mouli, President – APEX, Ms. Anju Gupta, Vice President

– APEX, Ms Nanda Kulkarni, President - Western Region, Ms Mallika Shetty, General Secretary – APEX, Ms. Varsha Raut, Treasurer – APEX, Ms. Kirti Tiwari and other WIPS members. The program was attended by around 1000 participants, joining in from across the country.

Ms. Rekha Sharma, in her address spoke about the importance of availability of basic necessities of safety, security and support for women on their path to self-actualization. She added that to ascend to helm of their careers, women need to be emotionally strong, financially independent and more focussed in their approach.

Ms. Soma Mondal in her keynote address said that every woman has tremendous potential and

by arming oneself with education, skills, recognising one's capabilities and working diligently towards a goal, can help create women leaders of tomorrow.

Mr. Atul Sobti, in his address said that to propel the economy, enrich organizations, and evolve the society, the role of women empowerment is inimitable and organisations must create opportunities to help women unleash their true potential. He also cited the various endeavours undertaken by SCOPE for women empowerment through skill and capacity enhancement.

Also a CMDs session was held, followed by messages of female directors and an interactive session with Nidhi Choudhari, IAS (2012 batch), Collector of Mumbai Suburban District.

Interface with Stakeholders

Inaugural Meeting of SCOPE Health Committee held



Dr. H.K. Chopra, Senior Consultant Cardiologist, Medanta Moolchand Heart Institute & Chief Advisor, SHC; Mr. Atul Sobti, DG, SCOPE & Chairman, SHC; Mr. R.K. Sinha, Director (Personnel), CWC & Member, SCOPE Executive Board and other senior officials of PSEs during the meeting.

SCOPE organised the inaugural meeting of its Health Committee on 15th February, 2022. The meeting was presided by Mr. Atul Sobti, DG, SCOPE and also the Chairman of the SCOPE Health Committee and was attended by Dr. H. K. Chopra, Senior Consultant (Cardiology), Medanta Moolchand and Chief Advisor, SCOPE

Health Committee, along with the members of the committee, including Mr. R. K. Sinha, Director (Personnel), CWC; Dr. Chandra Tripathi, ED (Medical Services), GAIL; Mr. S. Jawed Ahmed, CGM (Chairman Sectt), SAIL; Dr. K. Fartyal, CGM (Medical Services), NHPC; Dr. Kiran Wadhawan, Medical Head, BHEL, Dr. Sangeeta Risbood, Chief Medical Officer

(CC), NTPC, Dr. Manjubala, DGM (Medical Services), ONGC, and Dr. Sandeep Sharma, GM (H,S&E-Medical, Corp. Office), IOCL.

During the meeting DG, SCOPE highlighted the importance of corporate health and wellness and mentioned the initiatives undertaken by SCOPE for the well-being of the employees of PSEs.

Dr. Chopra appreciated SCOPE's initiatives and emphasized on the need of creating awareness around early detection of diseases to save lives.

Discussions were held during the meeting and members suggested to conduct organ-specific workshops, identify important health days, initiate preventive health campaigns, share best practices amongst CPSEs, among other initiatives that SCOPE Health Committee can undertake with the focus on 'Illness to wellness.'

Advisor, SCOPE Health Committee, Dr. H. K. Chopra, Senior Consultant Cardiologist, Medanta Moolchand Heart Institute was felicitated with National Award of Science and Technological Communication by Ministry of Science and Technology, Government of India on National Science Day, 28th February, 2022 at Vigyan Bhawan, New Delhi.



Decarbonisation: Imperatives for India's Energy Sector



Ms. Vartika Shukla
CMD, EIL

Climate change has become a global issue and scientists across the world are toiling hard to devise new and cost-effective processes & technologies to propel the decarbonisation efforts towards achieving carbon neutrality in the targeted scenario. It is now widely accepted by industry and academia alike that net-zero narratives require to be supplemented with groundworks in terms of the adoption of decarbonisation as a working principle at all levels. The conundrum lies in whether the emerging and developed economies should follow the same suit or there should be a different approach for developing nations in terms of carbon emissions. Countries still have a difference of opinion moving forward on this model of emission reduction and a consensus on the model is yet to emerge.

As far as India is concerned, it ranks third after USA and China in terms of primary energy consumption with a global share of around 6% of which contribution of coal in the energy basket is highest with oil taking the second place. Given the anticipated growth of the Indian economy, India's energy demand is set to double in the next two decades.

Besides, India is poised to set up renewable power infrastructure on a significantly large scale to meet the twin objectives of meeting its burgeoning energy demand as well as achieve its Intended Nationally Determined (INDC) targets.

Honourable Prime Minister of India announced PANCHAMRIT at the recently concluded COP26 summit in which he charted the following path for India to fight climate change in the long run:

- India will reach its non-fossil energy capacity to 500 GW by 2030.
- India will meet 50 percent of its energy requirements from renewable energy by 2030.
- India will reduce the total projected carbon emissions by one billion tonnes from now onwards till 2030.
- By 2030, India will reduce the carbon intensity of its economy by 45 percent.
- Finally, by the year, 2070, India will achieve the target of Net Zero.

This shows India's commitment to achieving the global emissions targets. The pace with which the renewable energy capacity is increasing along with progressive

policy announcements, India can achieve the intended decarbonisation targets in the projected time frame.

Low Hanging Fruits

Large - scale deployment of innovative technologies is inevitable for the deep decarbonisation of industries. The first step towards achieving this objective is to identify the low-hanging fruits in respective industrial sectors. Energy conservation and energy efficiency improvement of existing industrial infrastructure are quintessential for realising the short term benefits. Studies conducted by various entities indicate significant potential savings in terms of petroleum products by 2030 through conservation and energy efficiency measures. Engineers India Limited (EIL) has also performed energy efficiency improvement studies of Refineries and Petro-chemical complexes for both Indian and International clients and possesses unique capabilities to implement the recommended short, medium and long-term energy efficiency drives of the industries. The Development of a nation-wide Natural Gas network towards a gas based economy is another important imperative for

decarbonising the energy sector. The Government is also targeting to increase the natural gas share in the primary energy basket to 15% by 2030 from its current share of 6.2%. The development of City Gas Distribution (CGD) network is anticipated to ensure accessibility of clean fuel for the household, industrial and transportation sector at an affordable price.

It is worth paying attention that the demand of chemicals & petrochemicals in India is already high catering to its 1.4 Billion population which is still growing by almost 1% every year and the per capita consumption of polymers is about one-third of the world average. This obviates the need for huge investments in the chemicals & petrochemicals segment for the installation of mega petrochemical complex integrated with the refinery to meet the burgeoning demand of chemicals and high end plastics. It is undeniable that the energy efficiency of the existing Oil & Gas infrastructure can be enhanced as the complexity of the process increases.

So far, some petro-chemical projects have been implemented in India and a few more such projects with high petro-chemical intensity of the order of 20-25% are also in pipeline. EIL has already played a key role in the implementation of mega petro-chemical projects in India and is poised to take up such assignments in the years to come with its impeccable track record in providing its services in the Oil & Gas business.

Biofuels: bolstering the energy transition

India has already tasted some



Snapshot of Biorefinery Project implemented at ABRPL, Assam.

success in the area of biofuels from different biomass feedstocks. Ethanol blending in Gasoline has been one such effort for reducing India's dependence on crude oil and saving foreign exchange for the nation. In order to fulfill the mandate of blending 20% ethanol in petrol by the advanced target year 2023, several measures are planned to be pursued both by the Oil Marketing Companies and the Government to encourage private players in setting up distilleries and expanding the raw material basket for sustained Ethanol production in the states.

Keeping the Ethanol demand scenario in mind, Govt. of India has allowed the procurement of Ethanol produced from other non-food feedstocks such as cellulosic and lignocellulosic biomass meeting the BIS standard. It gave the push to the technologies suitable for the production of 2G Ethanol. On this line, India's first 2G ethanol plant is being set up by ABRPL (a JV of NRL, Fortum and Chempolis OY, Finland). The project is being implemented by EIL based on the technology supplied by Chempolis OY. This is

one of the firsts that EIL has done so far in its more than five & half decades' long journey of providing services and building the nation's energy infrastructure. This project is anticipated to set the benchmark for India's Bio-refinery programmes in the coming years. It will not only boost the supply of ethanol for the transportation segment but also open more opportunities for the deployment of technologies related to the production of value-added products and chemicals from by-products of Bio-refineries.

Green Hydrogen: Opportunities for Industries

Green Hydrogen is an important alternative energy carrier having huge potential for decarbonising the industry at large scale. Increasing the share of solar PV installed capacity can be a game changer for the production of Green Hydrogen. The demand for hydrogen in industrial applications has been continuously growing. The current hydrogen demand is almost entirely fulfilled from fossil fuels with almost



Dahej Petrochemical Project.

6% of global natural gas used towards hydrogen production. It is to note that the production of one Kg of Hydrogen from Natural gas is responsible for almost ten Kg of CO₂ emissions through Steam Methane Reforming (SMR) pathway.

There has been a strong push on the Green Hydrogen production technologies across the world with almost all the developed nations declaring their plans and policies for production, scale up and large scale deployment of green hydrogen in various plausible applications. For instance, as part of Fit for 55, the European Commission has proposed a Renewable Energy Directive modification to mandate 50% renewable hydrogen consumption in the industry by 2030. India is also in the same league and the Ministry of Power, Govt. of India, has recently announced its Green Hydrogen Policy to facilitate the transition from fossil fuel / fossil fuel based feedstocks to Green Hydrogen / Green Ammonia both as energy carriers and as chemical feedstocks for different sectors.

It is worth paying attention that the demand of chemicals & petrochemicals in India is already high catering to its 1.4 Billion population which is still growing by almost 1% every year and the per capita consumption of polymers is about one-third of the world average. This obviates the need for huge investments in the chemicals & petrochemicals segment for the installation of mega petrochemical complex integrated with the refinery to meet the burgeoning demand of chemicals and high end plastics.

In addition to the initiatives on Green Hydrogen, there is also a strong push for technologies related to CO₂ capture and utilization for immediate emission reduction benefits. Grey Hydrogen production with CO₂ capture has the potential for achieving the climate change mitigation targets till the technologies for Green Hydrogen mature. While the cost associated with the production of Blue Hydrogen from Natural Gas may be lower than the Green Hydrogen in the present scenario but experts argue that the cost of production of Green Hydrogen is expected to reduce significantly with the large scale manufacturing of electrolyzers. Hence, the development and deployment of innovative CO₂ capture and utilization technologies are the need of the hour for utilization of current industrial assets and a long term sustainable energy solutions.

Green Hydrogen Policy also facilitates setting up manufacturing zones, allowing setting up bunkers near the ports for export and benefits related to Renewable Purchase Obligation (RPO) to both producers as well as DISCOMS etc. aligning with the Green Hydrogen Mission (GHM) launched by the Honorable PM of India on India's 75th Independence day to make India a Green Hydrogen Hub. It is anticipated that the Govt. of India may also come with more such announcements related to indigenous manufacturing of electrolyzers to reduce the cost of Green Hydrogen production. Broader areas in which key policy interventions are envisaged to flourish the Green Hydrogen

sector in India can be categorized as follows:

- Green Hydrogen Consumption Obligation (GHCO) to create Initial demand
- PLI for indigenous Electrolyser Manufacturing
- R&D and Testing Facilities
- VGF for pilot projects in emerging sectors
- Local raw material supply

Seemingly, the success of the Green Hydrogen economy will be on similar lines to the success story of solar energy in India where key interventions could effectively bring down the cost of solar energy in the past decade.

Concluding Remark

Hence, a paradigm shift in the decarbonisation technologies and projects related thereof is envisaged in the years to come to provide momentum to the nation's journey towards net zero. In continuation of the past



Mangalore Refinery & Petrochemical Project.

efforts, Govt. of India may also launch several other initiatives towards building a self-reliant India in terms of catering to its energy demands to achieve its mammoth economic target. Amidst the changing geopolitical landscape and achieving four key objectives of our energy policy namely- Access at affordable prices, Improved

security and Independence, Greater Sustainability and Economic Growth to ensure the energy security for the nation without de-railing from the national decarbonisation bandwagon, a concerted collaborative effort of all the stakeholders is warranted to realise the dream of Atmanirbharta in the Energy sector. ■

Integrated Refinery Expansion Project, Kochi Refinery.





Primus inter pares – Those incredible women who operate a hi-tech Petroleum refinery unit

Introduction - The Spark is Ignited

It was often said that 'the petroleum industry is a man's world'. Whether it was the protective attitude of patronising men or the biases of the times that they lived in, women were usually precluded from the mechanical and industrialized fields around the world. Perhaps, it was considered a job not fit for women based on the quantum of physical labour involved, or maybe it was a male disdain for the capacity of women to be equal to men in intellect or strength – there was always some stubborn, discriminating notion that separated genders from the roles and tasks that they were assigned to, often slotting men and

women in archetypical roles that could not be interchanged or impugned lightly. However, times change, perceptions and societal outlooks change – albeit, gradually. In the recent time our country is witnessing a change in this situation. Women are shattering the glass ceilings in all sphere of life. Many a CPSE organisations have lead the way in providing equal opportunities to women leaders. Following this laudable trend MRPL took the revolutionary step of appointing women as operators for their Coker Heavy Gas Oil Hydro Treating Unit, Eventually, these incredible women became entirely responsible for the complete operation of this CHT Unit. How did this come about?

Their story begins in 2013, when MRPL commissioned its Phase III expansion of its Petroleum Refinery in the Coastal Karnataka region. Subsequently, the 0.65 MMTPA Coker Heavy Gas Oil Hydro Treating Unit (CHTU), a secondary processing facility was brought into operation under this Upgradation and Refinery Expansion Project and it went live on May 12, 2014. At the time, a visionary approach was needed and MRPL delivered in grand style by declaring that it would be operated only by women. This was not mere lip-service to women's empowerment or gender-equality, this was acta non verba (Deeds, not merely words). Here was a stellar moment whether talents of women employees could





be utilised for greater good of the organisation. And, to their credit, they did it in style, when these women went on to successfully operate it with efficiency and skill.

Currently, there are fifteen positions which have been filled by women who operate this unit continuously in shifts. As pioneers in this experiment of empowering women in this demanding industry, MRPL turned out to be an inspiration for other refineries and allied industries to allow more women into these, hitherto, “forbidden” territories.

About MRPL – The Little World

Our intrepid “sheroes” who operate the CHTU work in a formidable environment. Nonetheless, they have proven their mettle over time, emerging as competent, efficient operators. Let us learn a little more about their work- environment and the challenging work that they do.

Mangalore Refinery and Petrochemicals Limited is a Category I MiniRatna Central Public Sector Enterprise (CPSE) which operates under the Ministry of Petroleum & Natural Gas. It is located in

Women work in almost every department here - like the Maintenance Department, the Laboratory, the Operations Department - from entry - level positions to the glass-ceiling breaking decision-making levels. Today, we have women who are Operators, Technicians, Supervisors, Accountants, Officers, Managers, Deputy General Managers and more. To our great pride, one of the Board of directors, is a woman - Ms. Pomila Jaspal who leads the organisation as Director (Finance).

a serene, hilly location, north of Mangaluru city in Dakshina Kannada District of Karnataka. It has a capacity of 15.0 MM TPA (Million Metric Ton per annum). With a versatile design, this refinery possesses complex secondary processing units which provide a great deal of flexibility in processing Crudes of various API, resulting in the delivery of a range of quality products.

The entire third phase of its aforementioned expansion, which allowed MRPL to conduct this revolutionary experiment of hiring a women-only crew to operate one of its units, was commissioned at a cost of Rs. 15,000 crores. With this, the combined refining capacity of MRPL reached 15 million tonnes per annum. The CHT Unit was built with an investment of about Rs. 443 crores.

But, bear in mind that these are not the only women employees here. Women work in almost every department here - like the Maintenance Department, the Laboratory, the Operations Department - from entry-level positions to the glass-ceiling breaking decision-making levels. Today, we have women who are Operators, Technicians, Supervisors,



Accountants, Officers, Managers, Deputy General Managers and more. To our great pride, one of the Board of directors, is a woman - Ms. Pomila Jaspal who leads the organisation as Director (Finance).

About their Workplace – The Challenging Arena

Coming to the actual theatre of operations in which our women work, we must first understand that the Coker Heavy Gas Oil Hydro Treatment Unit (CHTU) is one of the most complicated units in MRPL. In its regular operation, it processes heavy gas oil from the Delayed Coker Unit to yield low-Sulphur, low-Nitrogen, Heavy Coker Gas Oil (HCGO).

This is then used as input/feedstock in the Petro-Fluid Catalytic Cracking (FCC) unit. Our highly efficient female workforce ended up managing both the in-plant operations as well as the control panel operations. An unheard of achievement in the global refining sector until then! Recruited in 2012-13, they underwent exhaustive training in plant-commissioning & field/DCS operations enabling them to be competent, skilled operators. Since then, they have grown from strength to strength, successfully handling various emergencies; assignments related to the unit ranging from field operation; panel operation and much more. Learning from these experiences, they added more skills to their already

formidable reservoir of technical knowledge. Thirteen of the fifteen women are technical operators. Seven of them are women who had been picked from the project-displaced families and trained like the other employees by MRPL.

Impacts and Outcomes – The Triumph of the Revolution

Since the inception, this Complex CHT Unit has been continually operated by these women. To this day, these 13 technical operators and 2 Engineers continuously handle the two panel positions and three field positions in three shifts. MRPL managed to show the world that Indian women are more than competent in operating complex petroleum refining plants. MRPL addresses all the issues and concerns pertaining to women employees. Issues related to women like Pregnancy, Childcare, other gynaecological issues are addressed without delay and they are given the support they truly deserve. This revolutionary experiment proved that when women are given support and encouragement, they will excel in every task before them, standing as equals to their male counterparts. Truly, these women are worthy of our admiration and emulation. ■

Let's keep talking the truth...



Kalika Jain
Manager - Corporate
Communications
NBCC (India) Limited

Every woman I know has her personal story of horror and sordid tales of violence and assault. Every single one has traumatic experience of varying degrees to share; that's how rampant violence against women is in India and around the world. Globally, at least 1 in 3 women have been sexually assaulted. This statistics from UN, doesn't even include sexual harassment. These numbers highlight the seriousness of the issue of violence against women. As women, we can feel empathetic towards those who have been violated and can try to build more awareness and draw attention to this pressing matter. Women need to be protected, not by forcing them to stay indoors or remain in 'purdah' or made to fall out of the workforce. It's our most basic right to be able to live and move around with dignity and freedom. Unfortunately, no matter how loud the clamour around violence against women and steps taken to ensure greater safety, crimes against us continue unabated.

Violence against women is not just an Indian problem; women in many nations, including in the developed western world, have fallen prey to rapes and assaults. Clearly, we are unable to stop

crimes but can we at least ensure that the redressal is speedy and just? The years gone by has punctured that hope in India. I wonder sometimes that if found guilty, should the perpetrator's work performance or social demeanour dictate the punishment for the same crime that would rightfully incarcerate another accused of a minimum of 7 years? This prism of privilege is problematic at various levels but most significantly in the way it threatens to thwart the hopes of justice to the rape survivor if the accused is found guilty.

Justice to victims and their families is becoming increasingly difficult with many heart-breaking tragic incidents taking on a political colour. A 9-year-old girl in Delhi was allegedly gangraped and her mortal remains forcibly cremated. If we fail to give quick justice and book the accused, what have we achieved almost a decade after Nirbhaya's brutal gangrape, mutilation, and death?

Between 2018 and 2019, crimes against women increased 7.3 per cent in India, according to the annual National Crime Record Bureau's Crime in India 2019 report. The NCRB said in its report that "A total of 4,05,861 cases of

crime against women were registered during 2019, showing an increase of 7.3% over 2018 (3,78,236 cases)." Most of the cases were registered under 'cruelty by husband or relatives' (30.9%), followed by 'assault on women with intent to outrage her modesty' (21.8%), 'kidnapping & abduction of women' (17.9%), and 'rape' (7.9%). Most cases of violence are perpetrated by current or former husbands or intimate partners, states UN Women. "More than 640 million women aged 15 and older have been subjected to intimate partner violence," it notes.

Despite this, marital rape is not yet recognised as a crime in India unless the wife is below 18 years of age. Though the Kerala High Court had said that sex against a woman's will can be called marital rape. It's quite easily being forgotten though that just being married doesn't expunge the rights of a woman. Therefore, it's high time Section 375 of the Indian Penal Code (IPC) is amended accordingly. Justice must be meted out with a fair, unbiased filter. You can't stop the crime, at least let the accused pay for it.

Moving from marital rape to sexual harassment cases at offices have reported decline in FY' 21;



complaints pending resolution, however, increased 5% due to lockdown. Cases fell sharply in the last financial year as organization shifted to remote and hybrid work models following the corona virus outbreak.

Gradual implementation of prevention of sexual harassment at workplace (PoSH) measures were resumed via online e-module trainings and webinars as per reports. The data suggests that private firms reported more incidents of sexual harassment at workplaces than government owned ones during FY' 21. The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, mandates listed companies to annually report the number of sexual harassment cases and the steps taken for redressal.

Promoting women's participation and gender equality in leadership roles is a pressing challenge for all countries. Yet as we look across the corporate landscape, it's clear that Governments play an important role in helping women maintain employment continuity thereby addressing gender inequalities through a robust system. PSUs as a business case have witnessed improving diversity in management and helping women access leadership positions as women's representation in leadership also majorly contributes to eradicate inequalities. Moreover, these gaps have

been addressed at all levels where recruiting and promotion system is based on the career paths considering potential career breaks, notably for women who take maternity leave and child-care leave. PSUs best describe female role models and gender-diverse boards with a wider range of backgrounds, experiences, perspectives, and problem-solving skills, which contribute to fostering women's upward mobility in the workplace.

On the other front, household and childcare responsibilities increased for many during the pandemic. While mothers reported a greater increase in domestic and childcare work than fathers, they also reported a 5% decrease in work hours, whereas fathers work hours largely remained stable. Such domestic inequalities are particularly stark in countries with lower levels of gender equality and female empowerment, UN 2020.

While men's roles have remained aligned with expectations over time, women's roles have rapidly expanded beyond the home, with more women working outside the home than ever before. Despite this, gender expectations remain the same. Women are still expected to perform most of the domestic and care work. Consequently, with the closure of the many professional childcare services during COVID-19, employed women are not only expected to be the

primary caregivers within their families but also to remain productive at workplace. Balancing these two expectations is challenging at the best of times, and near impossible during the global crisis. Indeed, women are expected to reduce their work time to take over caregiving duties whereas men are not. Thus, it is no surprise that women have reported greater stress and anxiety and the pandemic has both increased the role strain and expectations put on women as well as reduced external support.

Nevertheless, these gender patterns apparent in the early stages of the pandemic seem to be diminishing as things are picking up post pandemic. As the mutating virus continues to challenge lives and livelihood across geographies, humanity, true to its intrinsic nature, is finding ways and means to fight back and reclaim their habits and habitation, albeit with 'new normal' adjustments. The role of gender equality has never been more essential than today. A firm believer in Mahatma Gandhi's motto "Where there is love, there is life", in these two years of living with Corona, gender equality through my eyes has clearly been seen coming a long way. Time and again, we are reminded that the more women help one another, the more we help ourselves. An older adage into restless altruistic womanhood- "Where there is a will, there is a way!" ■



360-degree life of a Woman Oil & Gas Professional



Neha Raviraj Takpire
Market Research
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HPCL

How many of us share a particular illustration of a woman juggling many roles as a manager at home, of their children, and the office with a particular sense of accomplishment at the occasion of women's day? Across gender, it's a common phenomenon. While people have good enough intention behind sharing 'superwomen' illustrations, I think now the time has come when the juggling should also include the husband and the father in it as well. Times are indeed changing, especially in metro cities. Husband and wife, both juggle many roles they have to perform, to have everything in their life. However, a sense of responsibility at the home front, still largely lies with the female gender. Women are judged on the basis of how perfect they manage at home. If we find the weightage of different parameters on which a woman could be judged, cooking delicious meals contributes to a larger pie. Then comes being a good mother, a loving wife, a considerate daughter-in-law. And the last one probably is being a competent professional and somebody who follows her passions for her growth and indulgence.

One cannot criticize this

particular way of judging working women. Perceptions can answer the right from the wrong. However, we must accept that

In the Indian scenario, many companies are encouraging women's workforce to lead the teams and perform technical and challenging tasks as well. Companies like HPCL, ONGC are inducting female officers in departments such as Oil production and refinery operations, where they work at par with male counterparts in all-round shift duties.

it is unfair. An ambitious career woman is often tagged as a poor housewife or negligent mother. On this women's day, let's change our perception to empathy and consideration. Nobody can be good at everything. We have to stop romanticizing women as being good at everything and managing everything with a smile on their faces. It's time that we dismantle the pedestal of expectations women are often put on. Women are imperfect human beings and need support and participation from their partners and family members. The couple becomes perfect if they complement each other with their strengths and weaknesses.

Working women of my generation have the privilege of walking and following the paths of numerous role models. In the Oil & Gas Industry too, women are paving the way to shine in their careers. Be it Smt. Nishi Vasudeva, first woman CMD of an Indian Oil & Gas firm, to now interim CMD of ONGC, Smt. Alka Mittal. They are not just breaking the glass ceiling but smashing it to pieces. They strived to beat the biases society and colleagues subjected them to. But the Oil & Gas sector has to go on an extra



mile to catch up with other sectors which have a greater female workforce share.

However, a new era of diversity and inclusive growth is dawning. More and more women are encouraged to take leadership roles in Oil and Gas companies. According to a joint research conducted by the World Petroleum Council (WPC) and Boston Consulting Group (BCG), titled "Untapped Reserves 2.0: Driving Gender Balance in Oil and Gas" released in December 2021, women make up to 22% of the workforce in the global Oil & Gas industry, out of which, most women are

in business and administrative roles. However, while there is 39 percent at entry-level it dramatically drops to only 13 percent in senior-level positions.

In the Indian scenario, many companies are encouraging women's workforce to lead the teams and perform technical and challenging tasks as well. Companies like HPCL, ONGC are inducting female officers in departments such as Oil production and refinery operations, where they work at par with male counterparts in all-round shift duties. In HPCL the management recognizes the unique talent and perception

women workforce bring in their work. HPCL's crucial Mumbai Regional Office is run by an all-women team since 2020 and they have performed excellently at every front amidst the pandemic.

In HPCL, young officers including women officers are being honed in various areas which motivates us to go beyond our comfort zones and challenge ourselves. We are encouraged to explore our passion while working diligently in our regular roles. Be it writing, public speaking, creating, or many other interests, we like to follow. This goes without saying that the female officers wholeheartedly participate in such initiatives and follow their passion. I am happy and excited to be a part of the writer's club, where my passion lies.

The 360 degrees of women professionals thus come a full circle. Apart from managing official roles and family roles, we are pursuing our passion to have a life that is enriched with a purpose and vision of the future. This is all so that we can achieve and challenge ourselves to strive for having it all....



Data Privacy – An Infallible Approach to Data Security in Aviation



Sneha Viresh Bagdiya
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Technological innovations in the digital age have enabled error free working at lightning speed. Digitisation has significantly improved productivity and efficiency in the aviation sector. But are we really advanced enough to go complete digital, or equipped enough not to fall in the pitfalls of being constantly connected? Over a thousand cyber attacks on aviation systems take off every month. A survey claims that cyber crime would wash away a whopping amount of \$10 Trillion worldwide by 2025.

It goes without saying that being cyber enabled saves a lot of resources from manpower to time and money, but it doesn't come that easy. Countless cyber threats are encountered every moment. There is a gigantic threat perception following an immense need to secure systems, especially when threats grow a lot quicker than their alleviation measures. As far as aviation industry is concerned, everything is at stake right from the systems that control, to machines that fly, to their most important asset, Data!

Crack the attack!

We can't overlook the vulnerability of avionics be it air traffic

control systems, biometrics, facial recognition, information systems, automated entry exits or immigration, CUTE, CUSS or CUPPS and most vital, DBMS. Data is the pivot on which entire system revolves at a digital airport.

Talking about data theft attacks in the aviation sector, the list can go on. Be it Cathay Pacific or Easy Jet with more than 9M breached records, British Airways with 400K breached entities, Air Canada with 20K or the most easy DDoS attack on a Polish Airline, an employee losing the USB key containing more than 1000 confidential files of passenger identity at Heathrow Airport.

Airlines may constantly endure hacking attacks, but do all of them really come into notice unless the system is evidently breached? One of the most undesirable aspects of a cyber attack is that most of them are gone without being reported for the fear of loss of repute. Second concern is the hitch in sharing the attack matter and crucial pointers, since the shared information (expected to create awareness) even crafts an outlay for attackers instead to dig deep into loopholes. Third is the cost to mend the dent.

Attacks can be diverse, network and communication attack, DDoS

(Distributed Denial of Service), malware, misuse of authorisation, phishing, data manipulation, monitoring and many. The easiest way to steal data at an airport is by breaching the charging stations, be it for public or the working personnel since we use the same universal serial bus for both power and data. One would never even realise if the mobiles have already been hacked, codes have been installed, scripts have been running and data has been stolen.

Airports must enforce systems in place that restrict smart devices from being intruded and keep only power pins enabled in the sockets. Entire airport communication must have a multi-tier encryption protocol to prevent eavesdropping. Server rooms must have doorways with heavy magnetic fields so that in case of a physical data theft, data in the drive or chip would either get tampered or entirely erased. Smart backup and auto recovery plans ought to remain encrypted, hidden and unaltered and inaccessible until system has collapsed (to prevent it from being tampered) so that systems can be restored. We need to develop airport trust framework. Prevention is the only way in the virtual world as there stands no cure!



Digital Primacy - Data Privacy

With amendments in IT Act 2000 covering a larger variety of cyber crimes, workshops and training at cyber cells increasing their skill set in this area, usage of cyber forensic tools by cyber crime investigators and standard operating procedures aid in combating cyber crimes. In December 2019, Indian government introduced the Personal Data Protection Bill, 2019 in parliament.

The question is can we secure systems completely with zero data breach? Password protection fails to do the trick. In a serious data theft event, no matter how secured the hard disk or pen drive is, no matter how strong password protection is enforced, when asked in a scary situation to reveal the password, anyone would do so. But what if, the data existence of data in the pen drive is hidden? This is where data privacy steps in. What if the pen drive has two passwords, one for unimportant data and one for confidential? In a compromising moment, even if the password is known, the data still isn't because that password will open the sector that has random data. The confidential data, being private, is safe with the private password!

Encapsulation is the key! Just conceal the data and the job is done. If the existence of data remains unknown, it cannot be stolen. If the data private, isn't it secured already? An example in real life, a thief shall rob valuables that are seen. Valuables that are hidden are safe even in the midst of a robbery.

No matter how strong the systems get, stronger their unlock measures will continue to get.

The only way to protect data is to make it private, more than data security data privacy is the need of the hour. It is a never ending cycle, new breaching techniques will keep penetrating and defensive measures will keep defending.

Prioritizing data

Enforcing encryption standards, anti theft data protocols on every bit of data is not feasible. Another distinctive approach in my view to curb data theft is prioritizing data. The key data must be kept private in order to save it from eavesdropping. In megabytes of data, only a few bits contain

It goes without saying that being cyber enabled saves a lot of resources from manpower to time and money, but it doesn't come that easy. Countless cyber threats are encountered every moment. There is a gigantic threat perception following an immense need to secure systems, especially when threats grow a lot quicker than their alleviation measures. As far as aviation industry is concerned, everything is at stake right from the systems that control, to machines that fly, to their most important asset, Data!

sensitive information. An easier way would be to secure the most sensitive information by means of prioritizing it (highest priority) and can be kept in the safest vault, even unseen so that it is not susceptible to any malicious attack. Even if intruders manage to reach our safest farthest data check point, we will have time to curb it as breach alerts already would have been sent and now instead of witnessing a cyber attack, we are in a state of counteraction and closely monitoring the hacker before the final attack takes place. Utmost care should be taken not just on preventive measures but organizing data model in a way that confidential information stays in the furthest-most accessible path.

Are we becoming weak while strengthening the technology?

Only if computers knew how to think, we would have lost our world to technology long back. Technology is intended to come to our rescue but a question remains. At what cost does it make our lives easier?

The aviation industry is soaring in the digital sky expanding its wings of Artificial Intelligence but has anyone ever thought, with everything about us being fed on systems, WE are the inputs. With biometrics advancing so much, humans storing a template for literally everything from their physical to behavioural traits, are we actually heading to store a copy of each one of us? Have we ever thought how perilous can it get and how far can it go? The strength of technology is its biggest weakness too. The key is in our control over it! ■

Diabetes – A Silent Killer Part-1

Non-Insulin Dependent Diabetes Mellitus NIDDM Type-2 Diabetes



Dr. Nupur Krishnan*

Diabetes claims millions of lives every year. It is estimated that 100 million Indians will be diabetic by the year 2025. It can be easily prevented by early diagnosis, nutrition management and simple precautions. But most of the people are ignorant about its causes and symptoms.

What is Diabetes?

Our food is broken into sugar (Glucose) and our body cells absorb glucose with the help of a hormone called Insulin which is produced by a gland Pancreas. Normally Pancreas produces 4-7 mmol of Insulin to keep the sugar levels at a healthy range. However, there are various reasons where insulin level fluctuates thus causing high level of glucose floating in blood. This is known as Diabetes mellitus and we classify under different groups.

Type 1 Diabetes or Insulin Dependent Diabetes (IDDM)

Insufficient amount of insulin to absorb glucose.

- **Type 2 Diabetes. Non-Insulin Dependent Diabetes Mellitus (NIDDM):** Body cells fail to utilize insulin hence the glucose remains in blood instead

of entering into cells.

- **Ketone Bodies:** Due to deficiency of Insulin, our body utilizes Fat for energy production and it forms Ketone bodies. Adverse condition can lead to Coma.
- **Gestational or Induced Diabetes:** During pregnancy period insulin – resistant hormone levels increase and mother's pancreas is unable to produce enough insulin to meet increasing demand. This condition leads to Gestational diabetes. Gestational diabetes usually disappears after pregnancy but it may get prolonged even after the pregnancy period. About 7% of pregnant woman come across Gestational diabetes. Uncontrolled diabetes during pregnancy may cause abortion and health risks in the new-born.
- **Hypoglycemia** is a condition where blood sugar levels drop rapidly below 60 mg%. This may occur due to the following reasons:
 - Not eating enough food.
 - Pancreas producing more Insulin than the required amount.
 - Too much insulin is injected into body.

- Intake of alcohol along with anti-diabetic drugs.
- Strenuous exercise.

The following persons are more prone for diabetes

- Persons with irregular food habits.
- Persons with family history of diabetes (Parents / Siblings).
- Obese / overweight persons.
- Persons with high blood pressure.
- Woman with Polycystic ovary syndrome PCOS.
- Persons suffering from hypothyroid.
- Pregnant woman.
- Persons with Triglycerides more than 250 mg/dl.
- Persons with low levels of good cholesterol (HDL \leq 35).
- People above 45 years of age. However, Type 1 Diabetes may affect even younger children from 3-4 years.

Management of Diabetes

Medical Nutrition Therapy is a holistic approach to prevent, control and reverse Diabetes. It identifies the root cause of

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abnormal levels of glucose in your blood and modifies your food habits accordingly. The Four important aspects of diet planning include:-

- Increase β cell production to improve insulin production
- Identify antibodies that prevent utilization of Insulin
- The total quantity of Carbohydrates, fats, proteins consumed through food and
- The rate at which the food

releases glucose in blood stream. It is measured by Glycemic Index which helps us to identify the potential of any food in increasing the blood sugar levels. Always prefer food with low Glycemic Index.

Since Carbohydrates are the major sources of Glucose, avoid simple carbohydrates which are easily digested and elevate blood sugar levels immediately. However, prefer complex carbohydrates

which are digested slowly and thereby gradually supply sugars to the body.

A Diabetic should select foods, which are low in glycemic index, as they are digested slowly and gradually releases glucose into the blood stream. So, Food's Glycemic Index (G.I.) is essential, since it helps to know the potential of a food item to increase the blood sugar levels. Glycemic Index for Selected Foods

Prefer Foods with a Low glycemic index	Restrict Foods with a High glycemic index
Cereals: Whole-wheat flour (without sieving), bajra, jowar, brown raw rice, whole-wheat pasta, oats, ragi, Dalia /wheat cracks, wheat bran, multi whole grain atta (combinations of grains depends on your current physical & blood paramters)	Polished rice (Basmati), white bread, Maida, noodles, pasta, cornflakes, and corn atta.
Pulses and legumes: whole moong, urad, masoor dhal, Math, Channa dal, Rajmah, Horse gram, Urad Dal, Cowpea (Lobia), Chickpeas, Kabuli Channa, Tur dhal with drumstick & curry patta, Sprouts	Tadka Tur dhal or Oily Dhal.
All vegetables like Fresh Peas, Jackfruit, Carrot, Bottle gourd, Kantola, Karela, Ridge gourd, Lotus stem, Cabbage, Cauliflower, Beans, Papadi, Cluster beans, Fresh Peas, Onion, Carrots, Bamboo, Parwal, Raw Banana, Raw Banana Stem, Banana Flower etc.	Potato, Yam, Arbi. Canned Veggies packet peas. Leaching Process while preparing Sabji / curry.
Green leafy vegetables: Methi, Spinach, Bathua, Sarssoon ka saag, Colocasia leaves, Chawli, Curry leaves, Lettuce, Mint, Moringa leaves with moong dal, Moringa Flower, Green onion leaves	Chopped very small pieces or washed after cutting can decrease nutritive value and called this process "LEACHING". This leaching process essential for kidney patient due balance of electrolytes Na Cl K.
Whole fruits like Apple, Orange, Sweet lime, Guava, Watermelon, Pomegranate, Pears, Grapefruit, Musk Melon, Tangerine, Mandrine, Pumelo, Peach, Figs (anjeer), Raw Mango, Pineapple, Papaya. Strictly don't consume any fruits after meal.	Canned Fruits, Canned Fruit Juice, Fresh Fruits Juice, Sugarcane juice.
Fresh veggies smoothie, Fresh Buttermilk (Chaas), Fresh Veggies Soups	Soft Drink, Flavoured Juice, Flavoured Drink, Packets Soup, Alcohol.
Almonds, Walnut, Pista, Peanut, Pinenuts, Cashewnut, Flaxseeds, Pumpkin seeds, Sunflower seeds, Kalonji, musk melon seeds, watermelon seeds, Chia seeds, Black Til, White Til. (Nuts and seeds quantity always depends on physical and blood parameters)	Fried and salted Nuts and seeds

Dietary guidelines for Diabetic

A balanced diet does not mean that you have to restrict eating the things you like. Actually, it is the process of making healthy food choices by eating the right food and right quantity at the right times.

- Consult a qualified Clinical Nutritionist to cure and control diabetes.
- Instead of eating 3 times a day, eat 5 times but reduced the quantity. Your body utilizes the food better when taken in small quantities at regular intervals and it also helps in controlling the blood sugar.
- Feasting and fasting should be avoided. Neither skip meals, nor indulge in overeating.



- Avoid sugar rich foods that tend to raise your blood sugar levels rapidly., Honey, jaggery, sugar, cakes, pastries, glucose powder, jam, jelly, ice-cream, chocolates etc.
- Avoid fried foods as much as possible and reduce saturated fat in the diet (e.g., dalda, vana-spati, butter, margarine etc.)
- Due to frequent urination, water soluble vitamins like B-Complex and Vitamin C may be flushed from the body, hence sufficient amount of these vitamins should be consumed.
- Soft drinks, fruits and vegetable juices and alcohol will increase blood sugar levels very rapidly hence avoid them.
- Regular Exercise should be an integral part of the daily routine of a diabetic. Do not exercise on an empty stomach. Regular exercise (3 to 4 times a week or more) helps in controlling glucose in blood, normalizes blood pressure, improves Insulin sensitivity, decreases VLDL & LDL (bad) cholesterol, increases HDL (good) cholesterol and reduces risk of heart disease.
- Do spirometer exercise to improve lung capacity or blowing balloon, which will help you to increase oxygen levels and will enhance your nutrients absorption in the body.

- Try to have mid-meal healthy snacks, pre lunch healthy drink and predinner healthy soups. Try few meal tips and recipes mentioned below-

- **Meal Tips:** Try to have multi-grain atta chapati and make sure to have pre lunch drink as mentioned and early predinner veggie or dal soup. Never consume any fruits after breakfast / lunch / dinner to avoid glyce-mic load.

- **Pre-Lunch or Mid Meal Drink:** Ash gourd Smoothie- remove ash gourd skin and seeds now 4-5 inches small pieces blend to a smooth puree (in a smoothie maker or mixer) add fresh crushed jeera, black pepper, black salt & lemon 1-2 Pudina leaves as per taste, drink fresh.



Pre-dinner Soup with mix veg-gies or Drumstick Soup with all seasoning herbs Urad Dal soup with seasoning herbs.



- **Mid Meal Snacks:** Keep dry Bhel in air tight container in Office Mixture of Roasted

Kurmura, Makhana, Sukha Poha, Roasted Channa, Lie, popcorn, channa jorgaram, Curry patta whole Green Chilli with peri - peri masala its yum-my Bhel.



- Alcohol should ideally be avoided depending on level of diabetes (mild, moderate or severe) when a diabetic can't avoid alcohol as at parties, small quantity just before or along with food is okay provided diabetes is under control.

Myths and Facts about Diabetes

Myth:- Diabetics can not consume Fruits

Fact: Diabetics can consume fruits because they contain fiber and fructose sugar. Due to fiber content fructose is slowly released in blood and our body can utilize fructose without insulin. However, Fruit juices are not recommended because they don't contain fiber. Never eat any fruit after meal becoz that will increase glyce-mic load.

Myth: All artificial sweeteners can be consumed?

Fact: Many artificial sweeteners contain a substance called Aspartame. It is good sweetener



for cold beverages and commonly used in many food products. However, it loses its sweetness at high temperature. For example, to sweeten one cup of tea or coffee we need more aspartame than to sweeten one cup of normal / cold water. So, we shall exercise caution.

Consuming more Aspartame based sweeteners may cause abnormal functioning of brain. Pregnant woman, children and patients with advanced liver disease shall avoid excess usage of Aspartame. Artificial sweeteners made of Sucralose are safer and more stable in hot and cold conditions. Hence, they may be preferred. Artificial sweeteners containing Cyclamate are banned in most countries.

Myth:- Can a diabetic eat rice?

Fact: Yes! Diabetics can consume rice, and rice should be unpolished rice but the quantity and quality shall always depend on nature and the degree of diabetes.

Myth:- Diabetic can't eat Idli Dosa ?

Fact: Diabetic easily eat Idli Dosa on regular basis because Idli Dosa are made out of unpolished raw rice and whole urad dal. So, its all-complex carbohydrates with best combination of amino acids and good quality protein.

Myth: Can diabetic afford to eat out?

Fact: A diabetic can eat outside foods which are prepared hygienically, but try to be away from packaged or canned food & deep fried.

Myth: Does a diabetic patient require to lose weight fast?

Fact: Obesity and Diabetes are two sides of the same coin. Obese people are advised to lose about 2-3 kgs per month. However sudden weight loss through crash diet is not advisable. Try to maintain ideal body weight.

True Case study

Ajeet Kumar Srivastava 57 years old has undergone medical nutrition therapy for diabetes (NIDDM)

His Feedback-

“It is a miracle diet. After the diet there are a lot of changes in my physique and alertness. I lost 3 kgs of weight in 20 days and I am feeling very light while walking. My Triglyceride and blood sugar levels have become normal.”

Blood Test	Before Treatment	After Treatment within 20 days	Normal Range
Fasting Blood Sugar FBS	156	132	80-100 mg/dl
Post prandial PP	263	124	<140 mg/dl
Triglycerides	331	167	<150 mg/dl
Current Weight	61	58	55 kg

True Case study

A civil engineer Shazeb Patel 28 years old enrolled with severe diabetes condition . His condition improved within 50 days of Medical Nutrition therapy

His Feedback

I was really very worried about my health conditions when i first visited her clinic. My sugar levels were very high ie 499.Saying sugar level were high was just an understatement.

Dr. Nupur took care of my diet, my health and everything and i was really surprised seeing the result after just 45 days, sugar level came down from (fasting blood sugar 246 to 98 and post lunch from 499 to 91) and that too without any medication. My cholesterol levels, triglycerides and Vitamin D levels also improved significantly. For a moment I couldn't believe that was my result.

I am very grateful to Dr. Nupur for taking care of my health and guiding me brilliantly on the way of recovery and making me fit again.

I am sharing my stories so that it inspires people to believe that diabetes can be managed even without medication, All you need is guidance of Dr. Nupur.

Highly recommended....

Blood Test	Before Treatment	After Treatment within 50 days	Normal Range
Fasting Blood Sugar	246	98.3	80-100mg/dl
Post Prandial	499	91.9	<140 mg/dl
Glycosylated HbA1c	14.7	9.2	<5.7 %
Vitamin D	13.1	45.2	30-100 ng/dl
Triglycerides	186	115.1	<150 mg/dl
Bad Cholesterol	139	112.1	<100 mg/dl
Fat %	25	19	17 %
Metabolic Age	50	28	-

To be continued... Part-2 in the next issue will be covering Type -1 Diabetes (IDDM) Insulin dependent Diabetes Mellitus & Foot Care of diabetic patient. ■

New and Improved Convention Centre at SCOPE Complex and SCOPE Minar

Conference Halls and facilities are being sanitized and fumigated on a regular basis.
Booking of halls are now open in line with Government guidelines.

Conference Facilities at SCOPE Convention Centre Lodhi Road, New Delhi

The centrally air-conditioned SCOPE Convention Centre at SCOPE Complex, Lodhi Road, New Delhi provides excellent conference facilities to PSEs, Govt. Departments, Autonomous Bodies, Institutions/NGOs etc. The Auditorium and other Conference Halls are equipped with projector and screen facilities, sound & light control room with recording & P.A. facility, etc. Details of the capacity of the Auditorium and other Halls, which are available on nominal tariff are given below:

Auditorium



The Auditorium having capacity of 310 persons (300 Chairs + 10 Nos. Chairs at stage) capacity equipped with projector, screen and mikes on dais and podium on stage.

Mirza Ghalib Chamber



The chamber having capacity of 108 persons (102 Nos. Chairs + 6 Nos. Chairs on Dais) equipped with 2 Nos. projector & screen and mikes on table, dais and podium.

Tagore Chamber



The chamber having capacity of 92 persons (86 Nos. Chairs + 6 Nos. Chairs on Dais) equipped with 2Nos. projector & screen and mikes on dais, tables & podium.

Bhabha Chamber (Board Room)



The chamber having capacity of 44 persons (24 Nos. Chairs on round table and 20 Nos. Chairs on sides) equipped with projector, screen and mikes on dais, tables & podium.

Fazal Chamber



The chamber having capacity of 25 persons (15 Nos. Chairs on round table and 10 Nos. Chairs on sides) capacity with board room type sitting arrangement equipped with projector, screen and mikes.

Business Centre



The Business Centre having capacity of 7 persons equipped with multi point Video Conferencing System (1+3), at three locations at a time for National & International both.

Annexe II



The Annexe-II has capacity of 15 Persons and is equipped with projector and screen.

Banquet Hall



The banquet hall having capacity of 500 Persons for the purpose of lunch & dinner. Sitting arrangement could be done for 40 persons.

Tansen Chamber at UB



The Tansen Chamber has capacity of 30 persons and also has stage & podium equipped with projector and screen.

Annexe I



The Annexe-I has capacity of 20 Persons and is equipped with projector and screen.

Amir Khusro Chamber at UB



The Amir Khusro Chamber has capacity of 35 persons with facility of stage & podium equipped with projector and screen.

For Booking & Tariff details please contact

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Conference Facilities at SCOPE Minar Convention Centre, Laxmi Nagar, New Delhi

SCOPE Minar, an architecturally conceived in the form of two high rise curvilinear tower blocks sitting on a four storey circular Podium Block, is strategically located in Laxmi Nagar District Centre, Delhi -110092 and housing around 40 PSEs of repute. It is one of the iconic buildings of East Delhi. It has a huge foyer which gives an ambience look inside the building. There is a green environment all around the SCOPE Minar building with large size planters. The building also has state-of-the-art Convention Centre comprising of five conference halls i.e.

Auditorium



The auditorium has capacity of 350 delegates. Various seminars, training programmes, presentations, get together etc. can be conducted in auditorium which is equipped with projector and screen. It provides ambient and peaceful environment for the programmes.

VIP Lounge



VIP Lounge has sitting capacity of 30 delegates. The executives and higher level officers, Directors, CMDs can use it as waiting lounge also.

Board Room



Board room having "U" shaped table, has a sitting capacity of 50 delegates with modern facilities - projector, screen, sound system, table mic etc.

SCOPE Academy of Public Sector Enterprises



SCOPE Academy of Public Sector Enterprises (APSE) conducts induction level programmes for PSEs' executives. It has three training halls equipped with projector, screen, sound system etc. one with capacity of 40 persons and two halls with capacity of 30 persons each for training purpose.

Meeting Hall



Meeting hall having "U" shaped table, has a sitting capacity of 62 delegates. Most widely used for small size meetings and training programmes, group discussion, power point presentations etc. and is equipped with projector and screen.

For Booking & Tariff details for Convention Center, SCOPE Minar, Laxmi Nagar please contact

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There is a wide space for vehicle parking that cater for a capacity of 550 cars, including the newly built good quality Banquet Hall wherein 300 delegates can comfortably dine at a time, makes it special to deliver an all-round conducive meeting environment.

Budget 2022-23 Reaction: Chairman, SAIL

The Union Budget for Financial Year 2022-23 holds promise for faster economic development putting the Indian economy on a still higher trajectory of growth. The budget envisages higher public investment and capital spending

by the Government. There is a direct focus on intensifying the infrastructure developmental activities through the PM Gati Shakti Programme with seven engines of growth, focus on Highways network, PM Awas Yojna in rural and urban areas,

Har Ghar Nal Se Jal scheme, etc. The additional focus on MSME sector will also trigger enhanced economic activities. These efforts are sure to have a positive impact on the overall economy and it augurs well for the steel sector."

Minister launches New Rehabilitation & Resettlement Policy of NLC India Ltd.

Union Minister of Coal, Mines and Parliamentary Affairs, Mr. Pralhad Joshi said that NLC India Ltd. has been playing a pivotal role in ensuring India's energy security during the last six decades of performance. The Minister was virtually launching the new rehabilitation and resettlement (R&R) policy applicable to land owners of NLCIL mines area. Lauding the efforts of NLCIL and Tamil Nadu Government in framing a very flexible rehabilitation policy with multiple options available to the affected people, Minister Mr. Joshi ensured that compensation to the affected villagers will be based on fair and transparent process.

The Minister said that the new policy has provisions for enhanced amenities to project affected families. Mr. Joshi pointed out that NLCIL has signed an MoU with Tamil Nadu government to impart skill development to the youth under Skill India Mission. The Minister stated that the new RR policy will pave the way for



The Union Minister of Coal, Mines and Parliamentary Affairs Mr. Pralhad Joshi releasing the revised Rehabilitation & Resettlement (R&R) Policy of NLC India Limited at an event held at Neyveli, through Virtual mode from New Delhi. VIPs on the dais at Neyveli Lignite Hall (From Left: Mr. Jaikumar Srinivasan, Mr. R. Vikraman, Directors of NLCIL; Mr. Saba Rajendran, MLA, Mr. C.V. Ganesan & Mr. M.R.K. Panneerselvam, Ministers, Government of Tamil Nadu, Mr. Rakesh Kumar, CMD, NLCIL, Mr. K. Balasubramaniam, Collector, Cuddalore District, Mr. Shaji John, Director, NLCIL, Mr. L. Chandrasekar, CVO, NLCIL, Mr. T. Velmurugan, MLA and Mr. S. Radhakrishnan, MLA.)

sustainable livelihood and make every village AtmaNirbhar.

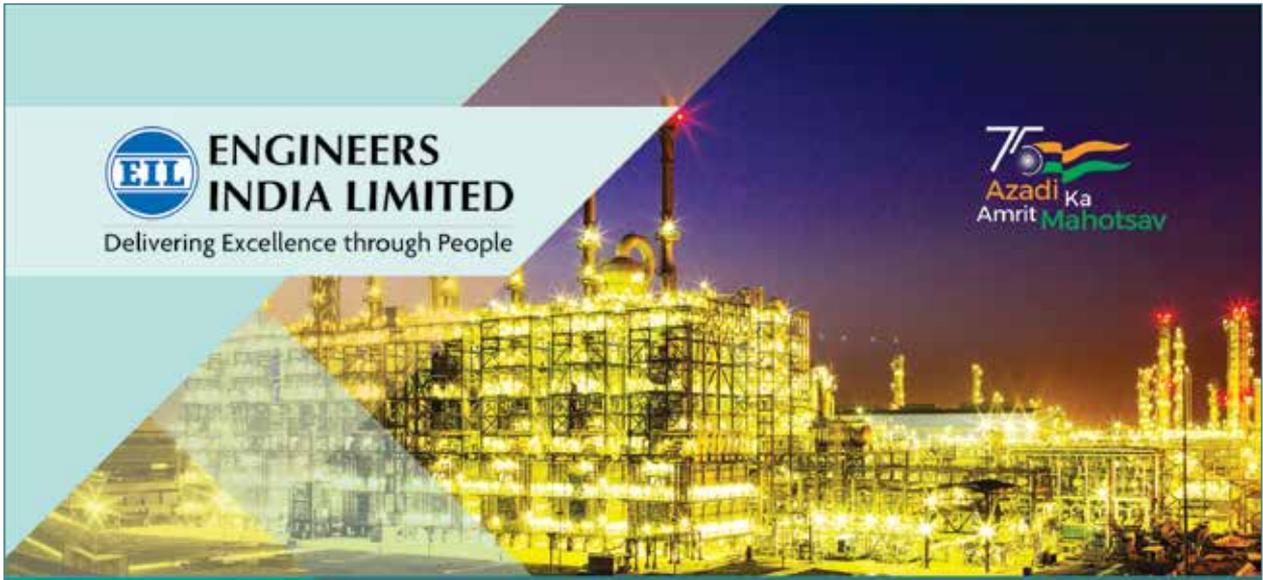
Addressing the function virtually, the Minister of State for Coal, Mines and Railways Mr. Raosaheb Patil Danve said that besides benefitting the villagers, the policy will lead to further increase in energy production by NLCIL. Mr. M.R.K. Panneerselvam, Minister for Agriculture and Farmers

Welfare and Mr. C.V. Ganesan, Minister for Labour Welfare and Skill Development, Government of Tamil Nadu also attended the function and urged NLCIL to implement the new policy effectively to benefit the villagers. MPs, MLAs, senior functionaries of the Ministry of Coal, NLCIL and the villagers also attended the function.



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PSEs CSR Activities

Power Minister flags off four ALS ambulances to IGIMS, Patna under NTPC's CSR



Mr. R. K. Singh, Union Minister of Power, New & Renewable Energy flagging off the ambulances virtually.

Mr. R.K. Singh, Union Minister of Power, New & Renewable Energy, flagged off four high-tech ambulances, under NTPC's CSR grant to Indira Gandhi Institute of Medical Sciences (IGIMS), Patna recently. The keys were handed over to Dr. Manish Mandal, the medical superintendent of IGIMS in a function organised in IGIMS administrative office complex where Union Minister of Power, Mr. Singh joined through virtual mode from Delhi whereas Energy Minister, Bihar, Mr. Bijendra Prasad Yadav and Health Minister, Bihar, Mr. Mangal Pandey were physically present.

Speaking on the occasion, Mr. R. K. Singh said that handing over of the four ALS ambulances to IGIMS, Patna by NTPC reflects the best in the CSR and we are continuously and proactively supporting the state of Bihar. Congratulating the efforts of NTPC and state health department in strengthening the health sector in the state, he said this is the work for progress and well-being of the people of the state and such efforts will continue in the future also. Energy Minister, Bihar, Mr. Bijendra Prasad Yadav and Health Minister, Bihar, Mr. Mangal Pandey also addressed the gathering and lauded the efforts of NTPC for providing medical infrastructural support to the State. Mr. Gurdeep Singh, CMD, NTPC, Mr. Pratyaya Amrit,

Additional Chief Secretary, Health Bihar, Mr. Dillip Kumar Patel, Director (HR), NTPC, Mr. Vijai Singh, Regional Executive Director, (East-1), NTPC, Dr N.R. Biswas, Director, IGIMS, Patna along with officials of NTPC, Energy department of Bihar and IGIMS Patna were also present on the occasion.

MDL provides Medical Equipments and Accessories worth Rs. 1.32 crores to Cama & Albles Hospital

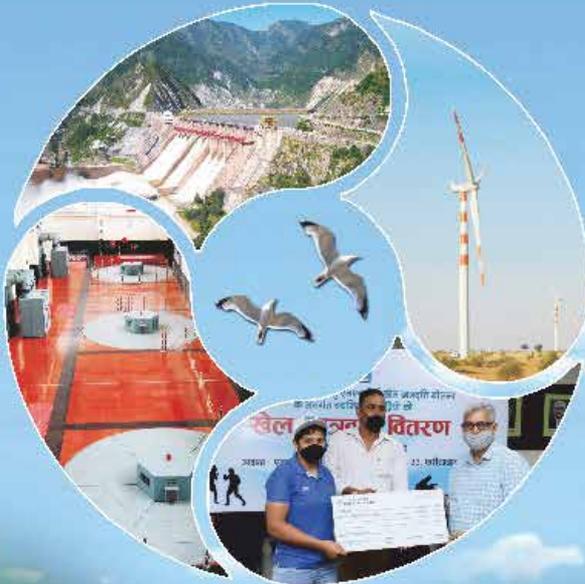


VAdm Narayan Prasad, AVSM, NM, IN (Retd), CMD, Mazagon Dock Shipbuilders Limited posing with the executives of MDL and staffs of Cama and Albles Hospital during the inauguration of HDU and NICU facility at Cama and Albles Hospital, Mumbai.

In a bid to extend its humane support, Mazagon Dock Shipbuilders Limited (MDL) under its CSR initiative has supported the Cama & Albles Hospital in establishing a High Dependency Unit (HDU) and Neonatal Intensive Care Unit (NICU) by providing essential medical equipment and accessories amounting to Rs. 1.32 crore to fight with COVID-19 pandemic during FY 2020-21. The HDU facility set up by MDL through its CSR funds is one of the most required facility for the Hospital as this facility will help them treat their critical patients inhouse without having to rush them to nearby hospitals. VAdm Narayan Prasad, AVSM NM, IN (Retd), CMD, MDL handed over the HDU and 13 KL Oxygen Tank to Dr. Tushar Tatyaba Palve, Medical Superintendent, Cama & Albles Hospital, Mumbai recently. Dr. Tushar Tatyaba Palve appreciated MDL's effort in setting up of 13 KL Oxygen Tank and the HDU. He further emphasized that the LMO tank will not only cater to the requirement of Cama & Albles Hospital but it can provide oxygen support to nearby hospitals also. ■



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से अधिक का अनुभव

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अंतर्राष्ट्रीय स्तर पर कार्यरत

कुल 31 लाभभोक्ता/वितरण कंपनियाँ

वर्ष 2020-21 के दौरान 244.71 मिलियन
यूनिट विद्युत उत्पादन



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HPCL expands its Footprint in Non-Fuel Retailing



Hindustan Petroleum Corporation Ltd., giving a further push to its ambitions in non-fuel retailing announced opening of two more Convenience Stores under its brand name 'Happy Shop'. The new Happy Shop stores have been opened at Company's Auto Care Centre, Bandra West in Mumbai and Millennium Retail

Outlet in Visakhapatnam. The first Retail Store under brand name Happy Shop was opened at the Company's Retail Outlet at Nepean Sea Road in Mumbai in September, 2021 and the Store has been a huge hit amongst the residents of the locality. In addition to above, the Online Store at Madurai was also inaugurated marking the entry of Happy Shop in purely online format also.

The product range in each of the new Store has been meticulously planned to suit the tastes and preferences of the local neighborhoods. The Stores are equipped with advanced technology to provide a seamless shopping experience to customers in the nearby areas.

Along with the experience of physical Store, they have the

option of Online shopping with door delivery model. Customers will be able to browse and shop the merchandise on HPCL's 'HP Pay App' (available on App Store & Play Store), and have goods delivered to their homes.

Speaking on the occasion, CMD HPCL, Mr. Surana said, "At HPCL, we are focused on giving a differentiated experience to the customers. Happy Shops will provide a range of quality products to the customers at a great value."

HPCL has also started marketing branded packaged drinking water under the name 'Paani@Club HP' at its Retail Outlets across the country adding another offering in the customer convenience. The offering has been well accepted by the customers and is creating its own space.

BHEL secures order for Heat Exchangers for Light Combat Aircraft – Tejas

In a major boost to Defence Production under the 'Make in India' initiative and towards achieving self-reliance in the critical field of defence equipment, Bharat Heavy Electricals Limited (BHEL) has received an order for the supply of Compact Heat Exchanger sets for 83 LCA Tejas MK1A aircrafts, from Hindustan Aeronautics Limited (HAL).

The order envisages manufacturing, assembly, testing and supply of Compact Heat Exchangers to be fitted in the LCA Tejas aircraft being manufactured by HAL.

BHEL's Heavy Plates and Vessels Plant (HPVP), Visakhapatnam is the sole supplier of Heat Exchangers for LCA Tejas to HAL since 1996. BHEL-HPVP and Aeronautical Development Agency (ADA), Bangalore have

jointly designed and developed 13 different types of Compact Heat Exchangers for Environmental Control System (ECS) and Secondary Power System (SPS) of LCA MK-1 programme.

BHEL is also currently working with DRDO for the development of Air Cycle Machine based Liquid Cooling System (LCS) for Aircraft POD application for LCA Mk-2.

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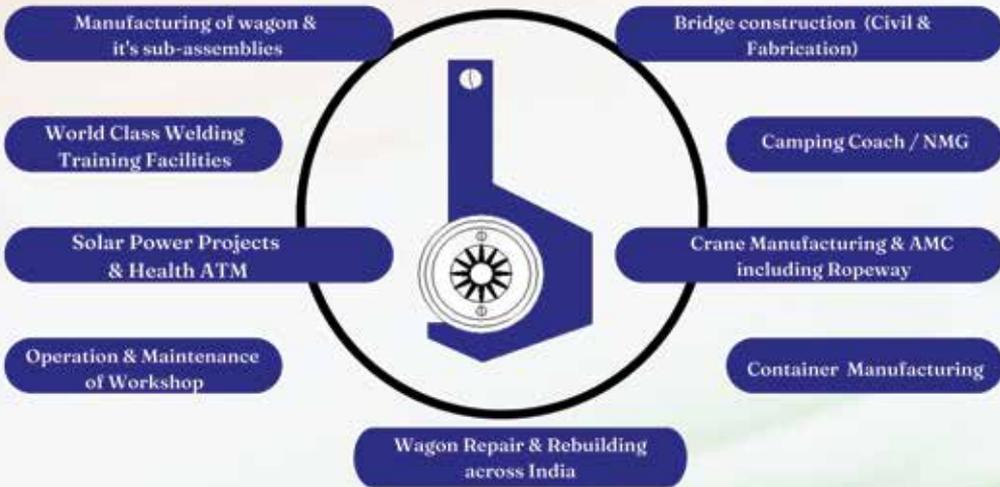
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PSEs Ink MoU

NBCC signs MoU with MoHUA for FY 2022



Mr. Manoj Joshi, Secretary, MoHUA; Mr. P. K. Gupta, CMD, NBCC; Mr. Rahul Kashyap, Director, MoHUA; Ms. B. K. Sokhey, Director (Finance), NBCC; Mr. Rajendra Chaudhari, Sr. Executive Director (Engg.), NBCC and other senior officials from Ministry and NBCC during the signing of MoU.

NBCC (India) Ltd. has signed an Annual Memorandum of Understanding (MoU) for the FY 2021-22 with its administrative Ministry, MoHUA, outlining the performance targets for the Company.

The MoU was signed by Mr. Manoj Joshi, Secretary, MoHUA, on behalf of the Ministry while Mr. P.K. Gupta, CMD, NBCC, signed on behalf of NBCC. Mr. Rahul Kashyap, Director, MoHUA; Ms. B.K. Sokhey, Director (Finance) and Mr. Rajendra Chaudhari, Sr. Executive Director (Engg.) of NBCC along with other officials of the Ministry and NBCC were present at the MoU signing event.

POWERGRID rated 'Excellent' in MoU FY 2020-21 signed with Ministry of Power

Power Grid Corporation of India Limited (POWERGRID) has been rated 'Excellent' (Score 98.41) in Memorandum of Understanding (MoU) for FY 2020-21 signed with Ministry of Power (MoP). POWERGRID has been consistently rated 'Excellent' under MoU since first MoU for FY 1993-94.

As on December, 2021, POWERGRID is owning and operating about 1,72,192 ckm transmission lines and 264 Sub-stations with transformation capacity of about 4,69,607 MVA. With the adoption of latest technological tools and techniques, enhanced use of automation and digital solutions, POWERGRID has been able to maintain average transmission system availability >99%.

REC commits financial support of ₹7.50 crore to Mizoram State Sports Council (MSSC)



Mr. Robert Romawia Royte, Minister of State (I/C) - Sports & Youth Services, Mizoram, Mr. V. Lalengmaia, Director - Tourism Department, Mr. Alex V. Chanwngthu, Addl. Residential Commissioner-Mizoram House, Mr. John Tanpuia, Secretary & CEO-MSSC, Mr. Ajoy Choudhury, Director (Finance)-REC, Dr. Kajal, IAS, Executive Director (CSR) - REC; and other officials of REC Limited and MSSC during MoU signing.

REC Limited has committed financial assistance of about Rs. 7.50 cr. under its CSR initiative for "Construction of REC - MSSC Motorsports Race Track and Sports Complex" at Lengpui, Mamit District of Mizoram. This will be the first and only race track in the North-East region and it will host international events in the future.

The work under the project included construction of 2 km long and 6 mtr wide Race Track, two storeyed building as well as sports complex facilities like administrative building and dressing, rooms, conference hall, medical room, official room, cafeteria, VIP room and equipment room; spectator galleries and parking areas, safety and security fencing etc.

The Memorandum of Agreement (MoA) in this regard was executed between REC Foundation and MSSC in presence of Mr. Robert Romawia Royte, Minister of State (I/C) - Sports & Youth Services,

Mizoram, Mr. V. Lalengmaia, Director - Tourism Department, Mr. Alex V. Chanwngthu, Addl. Residential Commissioner - Mizoram House, Mr. John Tanpuia, Secretary & CEO - MSSC, Mr. Ajoy Choudhury, Director (Finance) - REC, Dr. Kajal, IAS, Executive Director (CSR) - REC; and other officials of REC Limited.

HAL signs Contract for Export of ALH to Mauritius



Mr. B. K. Tripathy, General Manager, Helicopter Division - HAL; Mr. O.K. Dabidin, Secretary of Home Affairs, Prime Minister's Office, Govt. of The Republic Mauritius. Mr. Apurba Roy, General Manager, TAD-Kanpur, Mr. K Jhugroo, Deputy Commissioner of Mauritius Police, Mrs. P Sohun, Dy Permanent Secretary, Govt. of Mauritius, Mr. T Abdoolahkhan, Chief Inspector of Mauritius Police and Mr. Arup Kumar Mallick, Addl. General Manager (Mktg)-HAL.

Inline with Government's vision to boost defence exports to friendly foreign countries, HAL signed a contract with Govt. of Mauritius (GoM) for export of one Advanced Light Helicopter (ALH Mk III) for Mauritius Police Force. The Govt. of Mauritius already operates HAL built ALH and Do-228 aircraft. With this contract, HAL and GoM further strengthened the long standing business relations spanning over three decades.

The contract was signed by Mr. B. K. Tripathy, General Manager, Helicopter Division-HAL and Mr. O. K. Dabidin, Secretary of Home Affairs, Prime Minister's Office, Govt. of the Republic of Mauritius recently at HAL's Transport Aircraft Division, Kanpur in the presence of Mr. Apurba Roy, General Manager, TAD-Kanpur, Mr. K. Jhugroo, Deputy Commissioner of Mauritius Police, Mrs. P Sohun, Dy Permanent Secretary, Govt. of Mauritius, Mr.

T Abdoolahkhan, Chief Inspector of Mauritius Police and Mr. Arup Kumar Mallick, Addl. General Manager (Mktg)-HAL.

HPCL partners with Honda Power Pack Energy for creation of Battery Swapping Infrastructure



Officials from HPCL and Honda Power Pack Energy India Pvt. Limited (HPPEIL) during the MoU signing ceremony.

HPCL and Honda Power Pack Energy India Pvt Limited (HPPEIL), an Indian subsidiary of Honda Global, signed an MoU and commercial agreement to collaborate in the field of E-mobility and to provide Battery Swapping solutions across HPCL's retail outlets in major cities across India.

In an online signing off ceremony for MoU and Strategic agreement held recently, HPCL and Honda reaffirmed their commitment towards ensuring a greener future for India and the world by way of expanding utilization of renewable energy and to actively pursue electrification of transportation sector, which accounts for approximately 20% of the nation's greenhouse gas emissions.

Under the tie-up, Honda and HPCL propose to start the BaaS (Battery as a Service) business on commercial basis from Bengaluru city and spread across to other cities, wherein Honda will be setting up over 500 battery swapping stations across strategically located retail outlets of HPCL over a period of next 3 years. Initially, both parties propose to launch the service in Bengaluru across 100 stations during first 12 months. Subsequently, it is proposed to rollout the commercial operations in few selected cities like Mumbai and Delhi during 2022-23 and finally pan India during 2023-24.



CEL gets very good performance rating from DPE, Govt. of India

Government of India has given 'very good' rating to Central Electronics Limited, which has performed outstandingly well in the financial year 2020-21. This rating was given in OM released by Department of Public Enterprises, Ministry of Finance. The MoU Score of CEL is 75.55 on a scale of 100. CEL is a profit earning PSU for many years. CEL has performed outstandingly well despite the COVID-19 pandemic which impacted business and manufacturing operations everywhere.

CEL is a pioneer in Solar Technologies, Railway Electronics, Electronic Ceramics and Microwave electronics. CEL manufactured the 1st solar cell of India and the 1st Solar Module in year 1978. For 43 years the company has been serving the far-flung areas of country through various solar PV products like solar lanterns, Solar Home Lighting system, solar street lights, solar water pumping systems, solar power plants, etc.

NRL rated 'Excellent' in MoU for FY 2020-21 by DPE

Among the top 20 CPSEs in the country, Numaligarh Refinery Ltd. has been rated 'Excellent' in MoU FY 2020-21 by Department of Public Enterprises (DPE). NRL is among the top 20 CPSEs (Central Public Sector Enterprises) in the country who have scored 'Excellent' rating for the FY 2020-21.

NRL has been able to garner an MoU score of 96.72, which is the highest amongst the CPSEs under Ministry of Petroleum and Natural Gas. The MoU ratings were released recently by Department of Public Enterprises, Ministry of Finance. Every year, MoU targets for performance of CPSEs against various performance parameters is set by DPE.

The MoU included targets related to various parameters such as Financial, Physical, Human Resource Management, Project Execution, etc. Apart from this, special emphasis had also been given to targets related to CAPEX and growth.

CMD, NCL visits Block-B Coal Mine Greater Emphasis on Green Mining with Efficiency



Mr. Bhola Singh, CMD, NCL during his visit to Block-B, Coal mine.

The CMD of Northern Coalfields Limited (NCL), Mr. Bhola Singh visited the Block-B OCP. During the visit, Mr. Singh inspected the operations, First Mile connectivity Project, mine infrastructure, Heavy Machines etc. He also reviewed the current production, dispatch and the future roadmap

of the project. During the visit, he especially emphasized on environmental protection and passed on the necessary directives to concerned officials for massive plantation, Dust Suppression and maintenance of roads.

Mr. Singh also set the momentum to expedite the process of Forest and Environmental Clearances. He exhorted the team Block B to pave the path to produce 8 MT Coal in next financial year in the wake of growing energy demand of the Nation. Mr. Singh appreciated the way the Heavy Machines and CHP are being taken care of and expressed satisfaction on Coal exposure and Quality of Coal.

PSEs celebrate Azadi Ka Amrit Mahotsav



Azadi ka Amrit Mahotsav: ONGC organizes study tour for KV students to Tripura's ADB Installation



Students visit at ONGC's Gas Collecting Station.

Oil and Natural Gas Corporation Limited (ONGC) continued its study tours of students, as a part of the observance of Azadi Ka Amrit Mahotsav – celebrating 75 years of India's Independence. 106 students from Kendriya Vidyalaya of ONGC North Colony, Agartala visited ONGC Tripura Asset's petroleum Installation.

Senior engineers from ONGC Tripura Asset at ADB Gas Collecting Station explained the energy



Students were given a tour of the operational infrastructure.

business to the students, beginning with a film on the origins of oil and gas followed by another short video presentation on ONGC's operations.

Under the aegis of the Ministry of Petroleum and Natural Gas (MoP&NG), ONGC is organizing study visits of 25 groups, comprising of around 100 students in each group, since September 2021, under 'Azadi Ka Amrit Mahotsav' (AKAM).

Under this AKAM, ONGC is also collaborating with other oil PSUs, to launch various projects to boost the country's indigenous handicraft sector. Central public sector enterprises under the Ministry of Petroleum & Natural Gas will be launching 75 different handicraft projects across the country. Among which, ONGC has taken the lead and is supporting 15 projects. ONGC has already launched six handicraft projects in Madhya Pradesh, Assam, Odisha, Jharkhand, Uttarakhand and Karnataka. Minister of State, Petroleum & Natural Gas and Labor & Employment, Mr. Rameswar Teli launched the 3rd project – Assam Handloom project 'Ujjwal Abahan' in August 2021.

SCI – aligning to the AKAM spirit and going beyond

Azadi ka Amrit Mahotsav signifies an embodiment of all that is progressive about India's socio-cultural, political and economic identity. The Shipping Corporation of India Ltd. (SCI) joined the spirit behind the Government's initiative to celebrate and commemorate 75 years of progressive India and the glorious history of its people, culture and achievements. In continuing to sustain the vital supply chain and trade during the last two years' uncertainty driven crisis, SCI has in letter and spirit contributed to the vision of the AatmaNirbhar Bharat. It has dedicated major part of its efforts in fighting the pandemic enabling our country to bounce back to high paced growth.

SCI conducted various enlightening sessions by



Centralized Oxygen Plant installed at Community Health Centre of Punhana in Nuh District, Haryana.

renowned personalities for reinforcing awareness of nationalism among employees and young generation of the country. Special session on freedom fighters and a quiz on Independence Day was organized for school children by SCI to increase the awareness toward our glorious history and forgotten freedom fighters.

SCI through its CSR initiatives have also contributed toward infrastructure development and capability building in the healthcare system of the nation.

Under the CSR initiative of SCI, a Centralized Oxygen Plant has been installed at Community Health Centre of Punhana in Nuh District, Haryana to ensure adequate availability of Oxygen to the needy patients.

SCI also organized five free vaccination camps for general public and a total of 2745 beneficiaries were inoculated during these camps which has added to the environment for all.

NMDC CMD visits the **Bailadila Mines**

Mr. Sumit Deb, CMD of NMDC Limited visited the Kirandul and Bachel complexes of the company's Bailadila Iron Ore Mines recently. He reviewed the operations of the mines and took stock of the capacity expansion initiatives underway.

Addressing the officials, he said, "The Bailadila mines of NMDC consistently met the infrastructure needs of the country. As our country gears up to become an iron and steel powerhouse, NMDC will continue to put an iron-strong effort to mine a better future for India."

On their visit, Mr. Sumit Deb and Mr. Somnath Nandi, Director (Technical) also reviewed the commissioning of 3 MTPA NMDC Integrated Steel Plant at Nagarnar, Chhattisgarh. They encouraged the employees to



Mr. Sumit Deb, CMD, NMDC during his visit to the Bailadila Mines.

achieve project completion with continued diligence.

In decades of operation in Chhattisgarh, NMDC has built a strong social capital with investments in the fields of education, healthcare, infrastructure and skill development. On his visit, Mr. Sumit Deb assessed the CSR

initiatives of NMDC and said, "NMDC would not have become a mining major had it not been for the support of our host communities. With pride and commitment, we make continuous efforts to improve the quality of life and create socio-economic value for people."

PSEs Quarterly results

SAIL declares net profit of more than Rs 9,597 crore in 9M FY'22; company reduces borrowings by more than Rs 16,222 crore in 9M of FY'22

Steel Authority of India Limited (SAIL) declared the financial results giving the company's performance during Q3 and 9M of the Financial Year 2021-22 (FY'22).

Key Highlights of SAIL's performance during Q3 FY'22 and 9M FY'22 was best ever Q3 and 9M production of hot metal, crude steel and saleable steel. Net profit grew by 12% in Q3 FY22 over CPLY. Net profit grew to Rs. 9597 crore during 9M FY'22 vis-à-vis Rs. 406 crore during CPLY

Revenue from operations and grew by 28% at Rs.25,245 crore in Q3 FY'22 and 59% at Rs. 72,715 crore in 9M FY'22 over CPLY borrowings stood at Rs. 19,128 crore as on 31.12.2021

SAIL's Performance at a glance

	Q3 FY'22	Q3 FY'21	9M FY'22	9M FY'21
Financial Performance, in Rs Crore				
EBITDA	3659	5294	17581	7267
PBT	1931	3645	12829	2271
PAT	1443	1283	9597	406
Physical Performance in Million Tonnes				
Hot Metal Production	4.886	4.798	13.816	11.606
Crude Steel Production	4.531	4.368	12.77	10.659
Saleable Steel Production	4.365	4.153	12.455	10.184

The company has delivered one of its best physical performances during the quarter as well as nine months ending 31st December, 2021. However, the same is not reflected in the financial performance of Q3 FY'22 due to various factors beyond the control of the company which primarily include unprecedented increase in the prices of imported and indigenous coking coal. With the overall positive outlook in the economy and the announcements in the Union Budget for increasing the infrastructure spending, the performance is likely to improve in the coming quarters. The company's focus remains

to lower its borrowings and this is reflected in the reduction of about 15% over Q2.

OIL records 152% Increase in Profit

Oil India Board in its 529th Board Meeting held recently approved the Q3 FY 2021-22 results. The Company reported 152% growth in the Profit after Tax (PAT) for the period ended 31st December 2021. It reported profit of Rs.2,257.30 crore in the period as against Rs. 894.03 crore in the Nine months period last year. For the third quarter FY 2021-22 also the Company has reported 38% increase in the PAT to Rs.1244.90 crore. The Turnover of the OIL increased to Rs.10051.57 crore from Rs.6028.72 crore last year upto December.

Natural Gas production in Q3 2021-22 improved by 17.83% as compared to Q3 2020-21. Natural Gas production during 9 months period 2021-22 also increased by 16% as compared to 9 months period 2020-21. Crude Oil production broadly remained constant. The Company's EBITDA in Q3 2021-22 is Rs.2,235.72 crore vis-à-vis Rs.277.42 crore in Q3 2020-21 and EBITDA for the nine months ended on 31st December'2021 was Rs.4,813.63 crore vis-à-vis Rs.1,453.66 crore for the nine months ended on 31st December'2020.

OIL has reported EPS of Rs.11.48 per share in Q3 2021-22 as compared to Rs.8.33 in Q3 2020-21. For the nine months ended on 31st December'2021, the EPS was Rs.20.82 per share vis-à-vis EPS of Rs.8.24 per share for the Nine months ended 31st December'2020.

Board of OIL has declared a second interim dividend of Rs.5.75 per share for FY 2021-22 which resulted in total interim dividend till date of Rs.9.25 per share (Face Value Rs.10) during the FY 2021-22.

Average Crude Oil price realization for Q3 2021 – 22 was US\$ 78.59/ bbl vis-à-vis US\$ 44.09/ bbl for Q3 of 2020-21, increased by 78.25%. Crude Oil price realization for the nine months ended on 31st December'2021 was US\$72.41/bbl vis-à-vis US\$38.98 / bbl for the nine months ended 31st December'2020, increased by 85.76%. Average Natural Gas price for Q3 2021 – 22 is US\$ 2.90/MMBTU vis-à-vis US\$ 1.79 / MMBTU for Q3 of 2020-21 increased by US\$



1.01 / MMBTU. Natural Gas price realization for the nine months ended 31st December, 2021 is US\$ 2.16 / MMBTU vis-à-vis US\$ 2.19 / MMBTU for the nine months ended 31st December, 2020, decreased by US\$ 0.03 / MMBTU. The Group Turnover and PAT for the nine months ended 31st December' 2021 have increased to Rs.21,141.49 crore and Rs.4,191.89 crore, respectively.

OIL acquired 39,84,36,929 equity shares in NRL on 26th March, 2021, including 7,74,80,746 shares on behalf of Government of Assam (GoA) at a total investment of Rs.8,675.96 crore. The transfer process for entire 7,74,80,746 number of equity shares purchased by OIL from BPCL on behalf of GoA had been concluded on 3rd January 2022. After transfer of GoA shares, OIL presently holds 69.63% stake in NRL Equity. The OIL-AGCL (M/s. Assam Gas Company Limited) consortium (OIL-49% & AGCL-51%) received letter of intent (LOI) for grant of authorization for development of CGD in three geographical areas (two in the state of Tripura and one in north bank of Assam) in the recently concluded 11th round of CGD bidding round launched by PNGRB for development of CGD network.

NLCIL Overall Performance on Track

Key Highlights – Physical Performance

Standalone Power generation during the nine months ended 31.12.2021 was 18485 MU as against 13743 MU in the corresponding period of the previous year, registering a growth of 34.51%. Consolidated Power generation during the Nine Months ended 31.12.2021 was 21740 MU as against 17604 MU in the corresponding period of the previous year, registering a growth of 23.49%. The Company achieved PLF of 70.20% for Nine Months ended 31-12-2021 as against the national average of 57.16%.

Key Highlights – Financial Performance

The Total Income of the Group during the nine months ended 31.12.2021 was ₹9381crore as against Rs.8198 crore in the corresponding period of the previous year, registering a growth of 14.43%. Profit after tax (PAT) for the nine months ended 31.12.2021 was Rs.784 crore as against Rs.589 crore in the corresponding period of the previous year, registering a growth of 33.28%. The Total Income of the Company for the nine months ended 31.12.2021 is Rs.7887crore as against Rs. 6111 crore in the

corresponding period of the previous year, registering a growth of 29.06%. EBITDA (Before Exceptional items) for the nine months ended 31-12-2021 is Rs.3344 crore as against Rs.2397 crore in the corresponding period of the previous year, registering a growth of 39.51%. Profit for the period (PAT) for the nine months ended 31.12.2021 was Rs.797 crore as against Rs.387 crore in the corresponding period of the previous year, registering a growth of 105.96%. Robust collection of dues resulted in reduction of power debtors by 48.70% (from Rs.8554 crore as on 31-12-2020 to Rs.4388 crore as on 31-12-2021).

SCI meticulous drive towards distinction

Shipping Corporation of India Ltd., yet again proved its standards of excellence, recording a standalone profit (PAT) of Rs.290 Crores for the third quarter of FY 2021-22, an increase of 27.31% over the previous quarter. SCI's financial results for the quarter and nine months ended 31.12.2021 was approved by its Board in its meeting held on 31st January 2022.

The standalone nine months' revenue for FY 2021-22 at Rs.3,687 crores almost touched the total revenue for FY 2020-21 of Rs.3,703 crores with the nine months' profit at Rs.664 crores well surpassing the total profit of FY 2020-21 of Rs.618 crores, the trend remaining the same for the consolidated profit as well.

Revenue from Operations for Q3 of FY 2021-22 at Rs.1,438 crores registered an increase from Rs.1,221 Crores in the previous quarter Q2 FY 2021-22 and from Rs.841 Crores in corresponding quarter of the previous year Q3 FY 2020-21 mainly due to increased liner freight rates, sustained Dry Bulk market freight rates and better freight rates in the Tanker segment.

GRSE Performance Review Q3 & Nine Months ended FY22

Garden Reach Shipbuilders & Engineers Limited (GRSE) have announced its financial results for the third quarter and Nine Months ended December 31st, 2021. The Total Income stood at Rs. 1332.76 crore in nine months ended FY22 as against Rs.878.66 crore in nine months ended FY21 increase of Rs.454.10 crs. Improved by 52%

Revenues from operations for the nine months ended December 31st, 2021 stood at Rs.1212.90 crore as compared to Rs.742.00 crore in nine months ended December 31st, 2020, Improved by 63%. The

Earnings before Interest, Tax, Depreciation and Amortization (Core EBITDA) stands Rs.221.07 crore in Nine Months ended December 31st, 2021, as against Rs.150.43 crore in nine months ended December 31st, 2020, improved by 47% & The Company's EBITDA margin stood at 17%. Profit before tax (PBT) stood at Rs.194.05 crore for Nine Months ended December 31st, 2021 as compared to Rs.128.58 crore in Nine Months ended December 31st, 2020, improved by 51% & The Company's PBT margin stood at 15% Profit after tax (PAT) reported stood Rs. 142.33 crore in nine months ended December 31st, 2021 as against Rs. 95.47 crore in Nine Months ended December 31st, 2020. Improved by 49% & The Company's PAT margin stood at 11% Earnings per share (EPS) for the nine months ended December 31st, 2021 stood at Rs. 12.42 as compared to Rs. 8.33 in nine months ended December 31st, 2020.

Q3 FY22 Compared with Q3 FY21

The revenue from operation was Rs.486.89 crore in Q3 FY22 as against Rs.359.60 crore Q3 FY21 increased by Rs.127 crs. improved by 35%. The Company's EBITDA stood at Rs.95.80 crs. as against Rs.80.91 crs. of Q3 FY21 increased by Rs.15 crs, improved by 18%. Profit before tax (PBT) stood at Rs.85.95 crore for Q3 FY22, as against Rs.72.97 crs. in Q3 FY21 increased by Rs.13 crs, improved by 18%. Profit after tax (PAT) was at Rs.62.95 crore for Q3 FY22, as against Rs. 57.62 crs. in Q3 FY21 increased by Rs.5 crs, improved by 9% Earnings per share (EPS) for the quarter ended Q3 FY22 stood at Rs.5.49 as compared to Rs. 5.03 in Q3 FY21

Q3 FY22 Compared with Q2 FY22

The revenue from operation was registered at Rs.486.89 crore in Q3 FY22 as against Rs.421.83 crore of Q2 FY22 increased by Rs.65 crs, improved by 15%. The Company's EBITDA stood at Rs.95.80 crs, as against Rs.91.13 crs, of Q2 FY22 increased by Rs.5 crs, improved by 5% Profit before tax (PBT) stood at Rs.85.95 crore for Q3 FY22, as against Rs.81.65 crs. in Q3 FY21 increased by Rs.4 crs, improved by 5%. Profit after tax (PAT) stood at Rs.62.95 crore for Q3 FY22 as against Rs.58.79 crs. In Q2 FY22 increased by Rs.4 crs, improved by 7%. Earnings per share (EPS) for the quarter ended Q3 FY22 stood at Rs.5.49 as compared to Rs. 5.13 in Q2 FY22.

NALCO clocks Rs. 831 crore Net profit in Q3 FY22; posts all time nine-months period high PAT of Rs. 1926.

- NALCO surpasses several milestones in its Journey of Business Excellence in Q3 of FY22: Clocks quarterly Net Profit of Rs. 831 Cr in Q3 FY22; a jump by 246% over Rs. 240 Cr of Q3 FY21.
- NALCO clocks all time nine-month period high PAT of Rs. 1926 Cr in FY22; a 429% jump over Rs. 364 Cr achieved in corresponding period of FY21.
- NALCO Registers Highest Ever Quarterly Total Turnover and Export Turnover in Q3 of FY22.

National Aluminium Company Limited (NALCO) has surpassed several milestones in its journey of business excellence in Q3 of financial year 2021-22. The Company registered nearly 3.5-fold increase in net profit to clock Rs.831 crore in Q3 of FY22, a jump of 246% compared to Rs.240 crore in Q3 of FY21.

The Company also broke the highest profit figure clocked since inception for the first nine month period, with net profit of Rs.1,926 crore for the period ending December 2021, a 5-fold increase and a substantial jump of 429% over 364 cr posted in corresponding period of previous fiscal.

The total revenue from operations in Q3 of FY22 witnessed substantial growth, clocking Rs.3,773 crores compared to Rs.2,379 crores in Q3 of FY21. The results of NALCO were driven by sustained supply of raw material, optimized production, strategic sourcing of power, particularly during the period of coal crisis, better realization and effective capacity utilization of its operational units.

NALCO also declared second interim dividend of Rs.3 per equity share (60% of face value of Rs.5 per share) for the FY 21-22. The first interim dividend of Rs.2 per equity share was paid in December 2021. The total interim dividend paid during the current financial year works out to 100% of the paid up equity share capital.

Mr. Sridhar Patra, CMD, NALCO, attributed the success to the exemplary contributions of the employees in these trying times, and lauded them for focusing on production and productivity. "The robust growth and all round performance on production and financial parameters is testimony to the hard work and commitment of the employees and strategic focus on Production, People, and Projects.



The strategic growth-oriented roadmap and the relentless quest displayed by the employees to travel the extra mile in these challenging times is praiseworthy," Mr. Patra said.

Balmer Lawrie announces third quarter results

Balmer Lawrie & Co. Ltd. announced the third quarter results as per the accounts adopted for the quarter ending 31st December 2021. The results were approved by the Board in its Meeting held in Kolkata. The total net income for the third quarter registered a growth of 27% quarter to quarter and stood at Rs.507.18 crore as compared to the same period last year. The Profit before tax (PBT) increased by 17% and rose to Rs.25.04 crore for the quarter ended 31st December' 2021 as compared to Rs.21.38 crore for the same period last year. Correspondingly, the net profit (PAT) during the quarter increased by 68% to Rs.19.70 crore compared to Rs.11.75 crore for the corresponding period last year.

The net income for the nine-month period ended 31st December' 2021 stood at Rs.1497.52 crore, an increase of 41% over Rs.1064.80 crore in the corresponding period last year. PBT for the nine-month period increased and stood at Rs.85.83 crore as compared to Rs.50.25 crore in the same period last year.

NBCC reports PBT Growth of 51.42% in Nine Months - FY2021-22

Result Highlights

Highlights for Nine Months of FY 21-22– Standalone Financials

- Turnover surges 26.53% on nine to nine month basis
- PBT jumps 51.42% on nine to nine month basis
- PAT surges 30.87% on nine to nine month basis

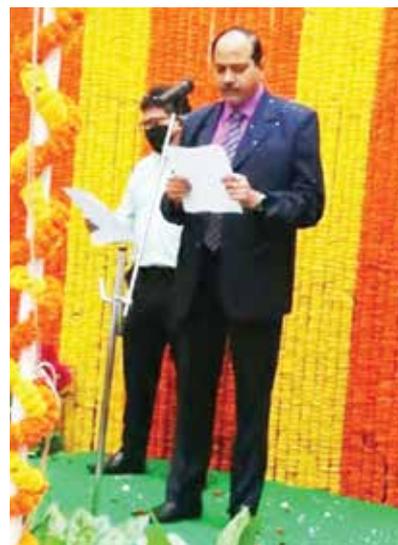
The Board of Directors in its meeting approved the financial results of the company for the quarter and nine months ended on December 31st, 2021. Company reported Turnover of Rs.3698.75 cr. for the nine months ended 31.12.2021 as compared to Rs.2923.30 cr. for corresponding nine months ended 31.12.2020, representing a growth of 26.53%.

Company earned Profit before tax (PBT) of Rs. 215.92 cr. for the nine months ended 31.12.2021 as compared to Rs.142.59 cr. for corresponding nine months ended 31.12.2020, showcasing a growth of 51.42%. Apart from this, the Company reported Profit after tax (PAT) of Rs.162.21 cr. for the nine months ended 31.12.2021 as compared to Rs.123.94 cr. for corresponding nine months ended 31.12.2020, manifesting a growth of 30.87%. A preferred partner of the Government for infrastructure projects, NBCC's 95% of business revenue comes under PMC segment and Redevelopment works which has grown by leaps and bounds, touching an order book of nearly Rs. 56,000 crore.

Balmer Lawrie celebrates 156th Foundation Day

Balmer Lawrie & Co. Ltd. celebrated its 156th Foundation Day recently. To mark this occasion Mr. Adika Ratna Sekhar, CMD hoisted the Company Flag and addressed the employees. Foundation Day was celebrated in all the regions across the country.

Mr. Adika Ratna Sekhar, CMD, Balmer Lawrie during the 156th Foundation Day Celebrations at Kolkata.



Awards & Accolades to PSEs

NTPC felicitated at the "New Frontiers: A Programme on Renewable Energy"



Mr. R. K. Singh, Union Minister of Power and New & Renewable Energy handing over the award to Mr. Gurdeep Singh, CMD, NTPC in the presence of Mr. Bhagwant Khuba, Union Minister of State of New and Renewable Energy, and Chemical & Fertilizers.

NTPC has been felicitated at the "New Frontiers: A Programme on Renewable Energy" event which was organised by the Ministry of New and Renewable Energy, Government of India at Vigyan Bhawan, New Delhi recently.

Mr. Gurdeep Singh, CMD, NTPC received the award from Mr. R. K. Singh, Union Minister of Power and New & Renewable Energy and Mr. Bhagwanth Khuba, Union Minister of State of New and Renewable Energy, and Chemicals & Fertilizers. This program was organized to felicitate those who have submitted their Energy Compacts to the UN showcasing India's Leadership in Energy Transition'. NTPC is the 1st energy company across the globe who declared its ECs at the UN.

PFC bestowed with the "ICAI Award for Excellence in Financial Reporting"

Power Finance Corporation Ltd. (PFC) won the ICAI (Institute of Chartered Accountants of India) Silver award for excellence in financial reporting for the financial year 2020-21 in 'Public Sector Entities' category recently.



Mr. R. S. Dhillon, CMD, PFC; Mrs. Parminder Chopra, Director (Finance) PFC and Mr. R. K. Malhotra, ED (Finance), PFC receiving the award from Dr. Jitender Singh, MoS (I/C) for Science and Technology, Earth Sciences, MoS for PMO, Personnel, Public Grievances and Pensions, Deptt of Atomic Energy and Space.

PFC was bestowed with this award for its highest degree of compliance with accounting standards, commendable accounting practices adopted while preparing financial statements, the policies adopted for disclosure and presentation of financial statements amongst other information contained in the annual report. The award was received by Mr. R. S. Dhillon, CMD, Mrs. Parminder Chopra, Director (Finance) and Mr. R. K. Malhotra, ED (Finance) from Dr. Jitender Singh, MoS (I/C) for PMO, Personnel, Public Grievances and Pensions, Deptt of Atomic Energy and Space, at an award distribution ceremony held recently. Mr. Mohd Salim, GM (Finance) and Mr. Anurag Gupta, CM (Finance) were also present on the occasion.

GAIL's Annual Report for 2020-21 wins 'Gold Shield' in ICAI Awards for Excellence in Financial Reporting

GAIL (India) Limited's Annual Report and Financial Statement for the year ended 31st March 2021 has won the 'Gold Shield' in the Institute of Chartered Accountants of India Awards for Excellence in Financial Reporting for 2020-21.

Mr. R. K. Jain, Director (Finance), GAIL received the award on behalf of the company from Dr. Jitendra



Dr. Jitendra Singh, Union Minister (centre in front row) presenting the 'Gold Shield' in the ICAI Awards for Excellence in Financial Reporting for 2020-21 to Mr. R. K. Jain, Director (Finance), GAIL (on his left).

Singh, MoS (I/C) of the MoS and Technology; MoS (I/C) of the Ministry of Earth Sciences; MoS in the Prime Minister's Office, Public Grievances and Pensions, Department of Atomic Energy and Department of Space.

NRL wins ICAI Award for Excellence in Financial Reporting



Dr. Jitendra Singh, Union Minister of State (I/C), Ministry of Science and Technology, PMO, Personnel, Public Grievances and Pensions presenting award to Mr. Indranil Mitra (Director Finance) NRL.

NRL has been bestowed with the ICAI Awards for Excellence in Financial Reporting for 2020-21 in the category 'Manufacturing and Trading Sector (Turnover equal to Rs. 3,000 Crore or more)'. The Annual Report and Financial Statement of the company for year ended 31st March, 2021 was adjudged as winner of the Silver Shield.

The award was presented by Dr. Jitendra Singh, Union Minister of State (I/C), Ministry of Science and Technology, Prime Minister's Office, Personnel, Public Grievances and Pensions to Mr. Indranil Mitra (Director Finance) NRL at the ICAI Awards function held in the presence of Mr. Nihar N. Jambusaria, President ICAI, Dr. Debashis Mitra, Vice President ICAI, senior NRL officials and other Central Council Members of ICAI.

The awardees were selected by a high powered jury chaired by Mr. P. K. Gupta, CMD, NBCC (India) Ltd. and a panel of eminent members from various walks of life after reviewing the accounting practices adopted by the companies while preparing their financial statements, the policies adopted for disclosure, and presentation of financial statements, among other information.

NHPC wins ICAI Gold Shield for Excellence in Financial Reporting and SAFA Certificate of Merit for Best Presented Annual Report

NHPC has won the Gold Shield for 'Excellence in Financial Reporting' awarded by the Institute of Chartered Accountants of India (ICAI) for FY 2020-21 in the category "Infrastructure & Construction Sector - Turnover equal to or more than Rs 500 crore".



Dr. Jitendra Singh, MoS (I/C), Ministry of Science & Technology & Ministry of Earth Sciences and MoS, PMO, Ministry of Personnel, Public Grievances and Pensions, Department of Atomic Energy & Department of Space, presented the ICAI Gold Shield and SAFA Certificate of Merit to Mr. A. K. Singh, CMD, NHPC along with Mr. R. P. Goyal, Director (Finance), NHPC and other senior officers of NHPC.

Contd... to #50

Personalia



Mr. S. K. G. Rahate
assumes charge as Chairman
& MD of REC Limited.



Ms. Sukla Mistry
assumes charge as Director
(Refineries) of Indian Oil
Corporation Limited.



Mr. Bhaskar Jyoti Phukan
Director (Technical) assumes additional
charge as Managing Director of
Numaligarh Refineries Limited.



Mr. S. R. Narasimhan
Director (System Operation)
assumes additional charge as
Chairman & Managing Director
of Power System Operation
Corporation Limited.



Mr. Deepak Gupta
assumes charge
as Director (Projects),
GAIL (India) Ltd.



Mr. Ramesh Chandra Joshi
assumes charge
as Director (Finance) of National
Aluminium Company Ltd.



Mr. Sanjay Kumar Singh
assumes charge as Director
(Technical) of Bharat Coking
Coal Limited.



Mr. Jai Prakash Dwivedi
assumes charge as
Director (Technical) of Western
Coalfields Limited.



Mr. Sanjay Khanna
assumes charge
as Director (Refineries) of Bharat
Petroleum Corporation Limited.



Mr. Sujoy Choudhury
assumes charge as Director (Planning
& Business Development) of Indian Oil
Corporation Limited.

Contd... from #49

The Company has also won the Certificate of Merit for the 'Best Presented Annual Report' from the South Asian Federation of Accountants (SAFA) in the Category "Public Sector Entities".

Dr. Jitendra Singh, MoS (I/C), Ministry of Science and Technology & Ministry of Earth Sciences and MoS, Prime Minister's Office, Ministry of Personnel,

Public Grievances and Pensions, Department of Atomic Energy & Department of Space, presented the awards to Mr. A. K. Singh, CMD, NHPC along with Mr. R. P. Goyal, Director (Finance), NHPC and other senior officers of NHPC in a programme organized by the ICAI at Hotel Radisson Blu, Ghaziabad (UP).



Ministry of Housing and Urban Affairs, Government of India



WORLD TRADE CENTER™ NEW DELHI



SALE
through
E-auction

At Nauroji Nagar

This is an Artistic Representation. Color Scheme may also change



Ring Road
Towards AIIMS

Ring Road
Towards Dhaula Kuan



For details please visit
www.nbccindia.com

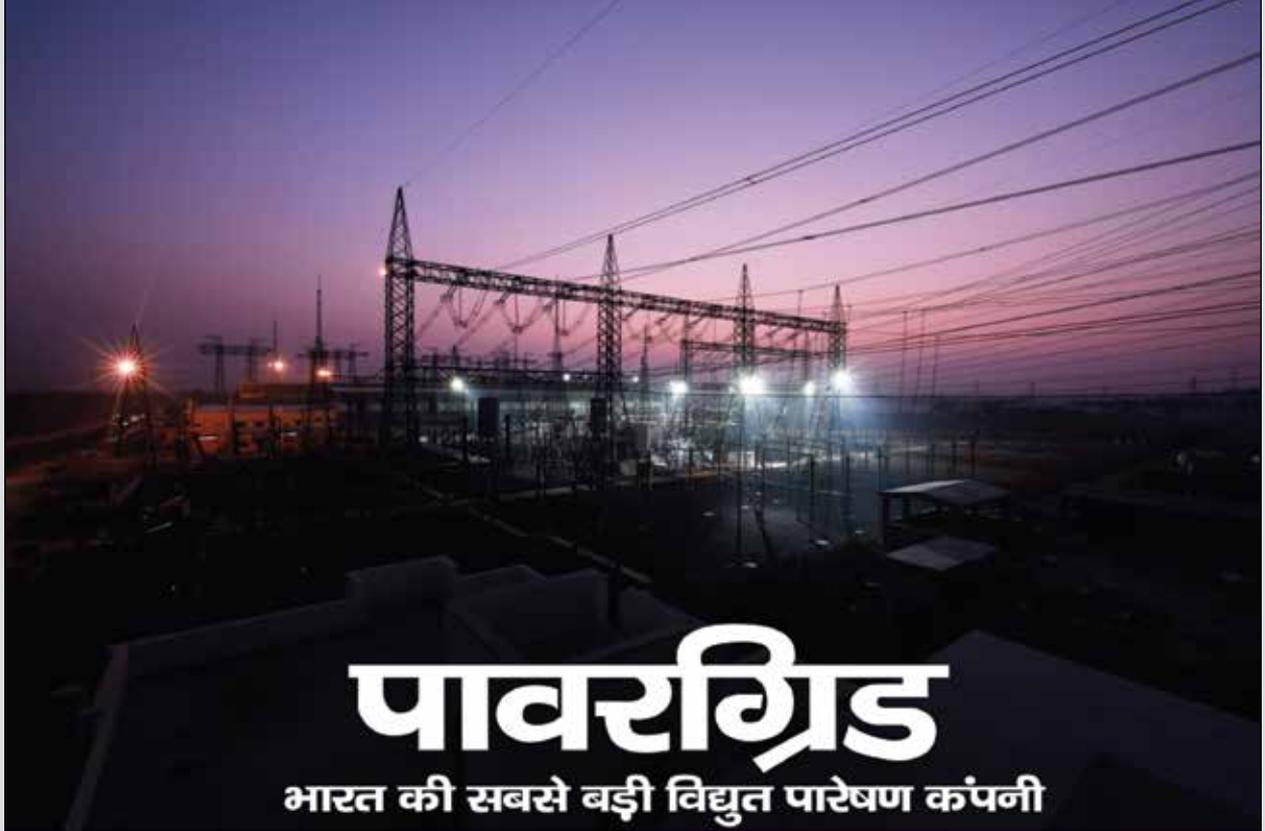
Sale open for all. For more details call: 8527633176, 7317792333 Or mail to sales.nauroji@nbccindia.com

FERA Registration: Applied for

Redevelopment of Nauroji Nagar by
NBCC (INDIA) LIMITED
(A Government of India Enterprise)
(Formerly National Buildings Construction Corporation Ltd.)
On behalf of Ministry of
Housing and Urban Affairs
Corporate Office: NBCC Bhawan, Lodhi Road, New Delhi- 110003.
CHU-246850U-196V003035



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पावरग्रिड

भारत की सबसे बड़ी विद्युत पारेषण कंपनी

विद्युत मंत्रालय, भारत सरकार की 'महारत्न' सार्वजनिक क्षेत्र उपक्रम (पीएसयू) पावरग्रिड, अंतर्राष्ट्रीय स्तर पर तीसरी सबसे बड़ी पारेषण उपयोगिता है जो पूरे देश भर में पारेषण परियोजनाओं की प्लानिंग, डिजाइनिंग, वित्त, पोषण, निर्माण, प्रचालन एवं अनुरक्षण में संलग्न है तथा भारतीय टेलीकॉम इंफ्रास्ट्रक्चर सेक्टर में भी प्रचालन कार्य करती है।



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पारेषण लाइन > 172,154 सर्किट किमी० 262 उप-केन्द्र अंतरण क्षमता 446,940 मेगावॉट

पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

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