

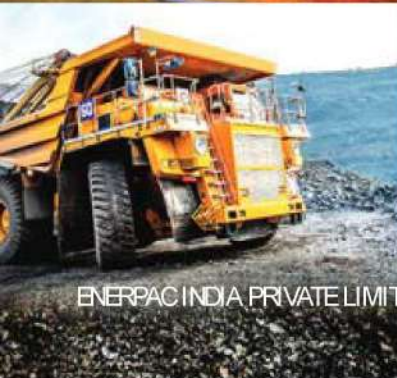
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Covid-19 has changed the way we think, live, and do business



All hopes of the EPC and Infrastructure sector now rest on creating momentum this year, says **AK TYAGI, CMD, Nuberg Engineering**

The ongoing Pandemic has badly battered the economy. Does infrastructure hold the key to revive the Indian economy? Your views

Undoubtedly, the pandemic has had an unprecedented negative impact on the global and Indian economy. Both the supply side and demand side were hit during the two waves of the virus. There has been an overall reduction in jobs, savings, incomes, consumption, and therefore upstream demand. The government had set an ambitious target of USD 5 trillion Indian economies by 2024 and the pandemic by some estimates has pushed this target by 3 years. Therefore, the government has its hands full in a) ensuring that the 2024 target remains feasible and b) provide rapid upliftment to Indian citizen's jobs, savings, incomes, consumption, and optimism.

Infrastructure absolutely holds the key to taking India to and beyond the USD 5 trillion targets. The focus needs to be on prioritizing Infrastructure that helps exponentially accelerate downstream developments. This priority infrastructure includes those boosting connectivity, core industries, talent, and industrial inputs. Connectivity will speed up economic activity and thus the

consumption-demand cycle. Core industries will lay the foundation for consumption and export industries including Make in India, Make for the World - these consist of Chemicals and Metals. India's chemical infrastructure development is key as it is an input element in every industry/product as well as agriculture. Talent demand is already a constraint and needs alleviation. Industrial inputs consist of cheaper and abundant digital connectivity, electricity, water, and industrial worker accommodation/welfare for adequate labour supply.

How are you adapting to the 'New Normal'?

Most of these shifts towards new normal are opportunities for the EPC-LSTK industry and we look forward to capitalising on them. There is a move towards local production of essential products, realignment of supply chains, and stress on remote management. Operationally, we have increased our focus on compliance and rapid response to more stringent and dynamically changing local laws and health initiatives in project countries. Our global experience of operating in more than 32+ countries had already honed our processes and capabilities to take on these challenges.

The new normal has also accelerated our digital transformations and are fast incorporating the latest in digital technologies and work processes. This includes IoT-enabled monitoring and maintenance of projects and commissioned plants. We are also incorporating Big Data for smarter design and inspections, AI-driven intelligent automation, AR and VR for superior safety, communication, and training, and 3D software for accuracy in delivery and reduction in commissioning times. Automation is enabling the development of a detailed initial design that is more than 95% fit as the final design thus enabling real-world estimation of engineering resources, material, and labour. Such automation also helps us to focus on construction execution and related supply chain at an earlier stage thus compressing timelines and costs. Nuberg EPC has also moved towards skid-mounted plants which drastically compresses the time required to build plants, and reduces workforce requirement at the project site, especially for small size plants.

How can the government assist the infrastructure sector in this Pandemic time?

The government's role has been that of encouragement and facilitation to the infrastructure sector while weeding out the inefficiencies. PLI schemes for different sectors and initiatives like National Hydrogen Energy Mission are a clear indication of infrastructure push. To further boost the infrastructure industry and EPC players the government should look at addressing the prohibitive cost of licencing of patented manufacturing technology that needs to be acquired from MNCs. An indigenous pool of technological processes would reduce costs for the whole industry and create savings of foreign exchange for the government. The cost of land and energy/power/gas

is another factor that impacts project viability. The manufacturing industry can be significantly more vibrant with a rationalisation of costs in this area. Lastly, the cost of talent in India is currently high due to the limited pool size. There is a requirement for skilled engineers and other workers, and the government needs to work on enabling a better trained and employment-ready talent pool.

What are the sustainability initiatives you have included for the project site to save the environment from further degradation?

There is a definite momentum towards a cleaner and sustainable industry. Clients demand and we deliver the highest level of environmental safety with flexibility for today's and future more stringent mandates. We are also leveraging the power of the latest digital technologies for planning and automating the construction process for minimal environmental impact as a priority in addition to process and cost efficiencies. This has been a considered shift from us towards sustainability. With an eye on future evolution, we at Nuberg EPC have Hydrogen – Green, Grey and Blue; 2G & 3G Ethanol, Water Electrolysis, Water Soluble Fertilizers and Next Generation Nutrients in focus currently. We are already building and commissioning India's first commercial-scale Hydrogen Purification (fuel cell grade), Compression, Storage & Dispensing Facility. It involves the generation of ultra-pure hydrogen and its storage at extremely high pressure. The Liquid hydrogen from the plant/facility will be used as fuel in vehicles. The success of the plant will enable a revolution in India. Being a responsible corporate citizen, Nuberg EPC is committed to bringing world-class sustainability technologies and processes into our projects.

The focus is now on executing the impossible; be it the bullet trains, underground metros, coastal roads, or tunnelling projects in inaccessible terrains, which were unheard of in India, a decade ago. What consultancy challenges you face?

Executing the impossible has been in our blood from inception – our tagline Making Ideas Happen is our DNA. Our first major project was an impossible project for a newly formed company. The project involved the relocation of a plant from the UK to Bangladesh - navigating the myriad technological, legal, logistical and resource challenges. Its success led to fifteen Greenfield projects in Bangladesh for us. It also set the ball rolling for the core set of learnings and domain expertise that went on to define Nuberg EPC and our roadmap to success. Nuberg EPC has thus developed the habit of setting and improving benchmarks in the industry. Our vision is to continually add value to our clients by offering large-scale industrial projects in a very cost-effective manner and with best-in-class quality.

Execution of dream projects is an enormous task because of their locations and logistics involved. There is a requirement for large logistics operations and coordination with global suppliers. It also involves dealing with laws, statutory requirements, societal norms across geographical diversities. It is also necessary to have legal knowledge and legal reinforcement. Furthermore, knowledge of the operating laws and guidelines, such as the electricity act, water act, labour laws, pollution laws, and their safety norms to execute the projects is necessary to avoid an unnecessary setback. We are prepared with all processes and capabilities to take on these challenges, and that is a great advantage that we have in terms of strategy with global size and skills.

We thus have quite a few global clients in diverse sectors. We have been working with some of the leading

customers which even include Al Ghaith Industries (Abu Dhabi), Inovyn (Sweden), FLUODER (Paraguay), ADDAR (Saudi Arabia), Gulf Chlorine (Qatar), DOSTEL (Turkey), Samuda Chemical Complex (Bangladesh), AGROCHEM (Egypt), SARL SASKO (Algeria), AMASSAS Co. (Ethiopia), Aditya Birla Chemicals (India), SCE Chemicals (Morocco), NCIC (Egypt), TCI Sanmar (Egypt), Oman Chlorine (Oman).

How are you overcoming highly skilled workforce shortages?

The core engineering talent with the company is our biggest strength. We learnt the importance of engineering talent in our first Bangladesh project and have maintained a laser focus on ensuring a high skillset and capacity. Nuberg EPC thus invests more in engineers than the industry norm that can be noted with the strength of more than 300 engineers with more than 300,000 available person-hours. There is an acknowledged talent shortage and thus a higher cost outlay in the industry. However, for Nuberg EPC, it is our investment in their wellbeing (economical, mental, safety, empathy, and growth) that has helped us retain and attract the best talent. We have thus been able to expand our leadership and offerings. Nuberg EPC is globally recognized as the number one player in EPC for Hydrogen Peroxide and Calcium Chloride. We are identified as the number 2 EPC company for Caustic Soda / Chloro-Alkali plants globally. Additionally, we are ranked among the top EPC companies in the Middle East countries. We have also created market-leading experience and capabilities in defence, nuclear and green fuels.

How do you see the economy, opportunities and challenges in this pandemic situation and please give us a brief idea about the strategies outlined to tap into the future potentials?

The Covid-19 pandemic has brought in an unprecedented challenge to the EPC industry. Undoubtedly, it has changed the way we think, live, and do business. It has negatively affected both the demand and supply side of industrial projects. All hopes of the EPC and Infrastructure sector now rest on creating momentum this year. For marketing and business development, we have adapted to virtual communication and

contracting for business development and partner engagement. With our global presence, we are available 24*7 to serve our customers. We have all the necessary stimulation and 3-D software like PDMS and SOLIDWORKS to facilitate our processes. Customers can study the plant simulation details for the small parts to the largest equipment & machinery. We have different software for each team- AVEVA E3D for piping, HTRI, PV lite, ISOMAC, Prosteel, and STAAD.Pro.

We expect Chemical consumption in developing countries to continue to expand. Manufacturing too will increase with an effort to ensure local capacity availability for future disruptions. There is also a strong realization and focus across the GCC countries to transform their economies from oil-dependent industries to non-oil dependent industries. Countries are now building their capacities instead of importing and diversifying into various industries including the manufacturing of speciality chemicals. We are working across various markets worldwide and hope to have new clients from Africa, Central Asia, and Southeast Asia. Apart from our leadership areas in Chlor Alkali, Caustic Soda, Sulphuric Acid, and Hydrogen Peroxide, we have delivered several other projects / products such as Anisole, Sulfolane, and Sulfur Bentonite. With our R&D facility, which has been our speciality, we have pipelined products that are in process for the customers to experience.

We had already been offering significant cost efficiency to clients and continue to do so with our R&D and backend integration in EPC which results in significant margin enhancement and higher demand. There is also increased focus on exploring the usage of Hydrogen as a clean fuel in existing and new projects, especially as it is also the feedstock for green chemicals. For Nuberg EPC, Hydrogen – Green, Grey and Blue; 2G & 3G Ethanol, Water Electrolysis, Water Soluble Fertilizers and Next Generation Nutrients are in focus currently.

Being a responsible corporate citizen, Nuberg EPC is committed to bringing world-class technologies and processes into India. Similarly, we are already actively pursuing global opportunities leveraging our Indian strengths and expanding our global footprints in upcoming and adjacent sectors.