Global Refining & Petrochemicals Congress

Organised By:
The Energy & Climate Initiatives Society
Registered Under The Societies Registration Act XXI of 1860

Theme:
Downstream 4.0 – Smart Manufacturing, Transformation & Sustainability

www.refpet.com
The year 2019 has begun with opening-up the flood-gates of disruptive changes across the Global Downstream Oil Industry including; United States becoming a net exporter of oil, massive capacity additions in refining & petrochemicals across Asia, global focus on digital transformation & renewable fuels, structural and geographical shifts in demand and supply trends, oscillating oil prices & the uncertainty about crude exports from Iran and Venezuela. The threat of alternate source of mobility with EVs emerging as preferred mode of mobility for the next decade, whilst providing a great opportunity for innovation, also proposes the constructive destruction of many dependable and proven processes and systems in place. We can also clearly see, major sustainability challenges before the industry that are not just limited to; reducing costs to remain competitive, improving performance to ensure the valorisation of assets, reducing the environmental footprint to meet the increasingly stringent standards and regulations & finally realigning the overall downstream operations in view of the rapid transitions across the energy industry.

Besides the above, the challenge of IMO 2020 MARPOL regulations for bunker fuel oil (to 0.5% S max without flue gas mitigation) for the world’s marine fleet is knocking at the doors. Together these trends promise to make 2019 an year with unique challenges and opportunities yet aligning the industry with the future - as we see it today.

The challenge to develop new and retrofit old processes will require mobilizing technical and human resources not just in Asian countries where new refining capacity is expanding, but also in the United States and Europe where there is a large amount of existing capacity that’s affected by alternate sources of mobility, earlier than other geographies. The effects of the developments in bio-refining, hydrogen from renewable-energy-powered electrolyzers and fast changing areas of Fuel Cells etc, on the downstream oil industry cannot be ignored. Even though gasoline demand will remain high for some more time, eventually in OECD countries it will decline with increasing vehicle fuel efficiency, biofuel consumption, EVs and Fuel Cells playing major roles in mobility. This provides an opportunity for refiners to capture ever increasing polymer and petrochemical markets by painfully using surplus naphtha. As per an IEA report, which I quote: “Petrochemicals are one of the key blind spots in the global energy debate, especially given the importance they exert on the future energy trends. In fact our analysis shows they will have a greater influence on the future of oil demand than cars, trucks, and aviation”. According to this report by 2030, petrochemicals are set to account for one third of the growth in oil demand, and nearly 50% by 2050. In view of this, direct conversion of Crude oil to Chemicals (COTC) may become more prominent in future. Given, Saudi Aramco and SABIC have already announced their plans to set-up a 400K BPD COTC Plant by 2025 for production of 9mpta chemicals and base oil. Like diamonds, Petrochemical and polymers are for ever.

Amidst all these factors, the question is how would the markets fare as the new year kicks off? How do companies stay relevant? and how do they adapt a business model that’s served well through these energy transitions?

Providing answers to many such questions, the biennial Global Refining & Petrochemicals Congress (GRPC), India’s flagship forum; dedicated to each link of the downstream value chain, provides the right platform for participants to exchange views, knowledge and identify the right fit for achieving excellence in innovation, sustainability, safety whilst removing flab and obsolescence from every area of operations.

This confluence of great minds from across the industry value chain, is also an opportunity for the participants to comprehensively review their operations & future plans, get policy updates, acquaint with the global trends, learn about disruptive innovations, drop-in on next gen biofuels & complex integrations, improving asset integrity and reliability, explore new pathways in catalyst developments and finding the next generation opportunities provided by IIOT, AI and blockchain etc whilst achieving sustainable operational excellence.

Whether you are an asset owner, operator or a technical service provider wanting to share, network, experience & grow. It’s a Forum, where You must be.

I am sure the congress will facilitate the exchange of ideas and discussions on pertinent energy-related issues, showcase unique investment opportunities in India while simultaneously meeting the strategic objectives of the industry, making it the most important event for those involved in the refining and processing of hydrocarbons.

DHARMENDRA PRADHAN
Minister of State (I/C)
Ministry of Petroleum & Natural Gas, GoI

I look forward to seeing you at GRPC 2019 during July in New Delhi.

S M Vaidya
Chairman, Conference Advisory Committee, GRPC 2019 &
Executive Director (Operations), IOCL
India, the world’s third largest oil consumer, consumed 206.2 Million Tonnes (over 4 million bpd) in the 2017-18 Fiscal. It’s demand growth recovered strongly in 2018, overcoming the aftermath of the implementation of Goods and Services Tax (GST) and demonetisation contributing 14 per cent of the global demand growth or 2,45,000 barrels per day. In August 2018, OPEC projected India’s oil demand to rise to 5.8 million barrels per day (bpd) by 2040, accounting for about 40 per cent of the overall increase in global demand during the period.

As the fastest growing economy in the world, India is poised to become the second largest demand growth centre globally in 2019 itself, just behind the US but ahead of China. Transport fuels – gasoline and diesel – and residential LPG will continue to be the two main drivers of oil demand growth. Whilst, diesel, the most consumed fuel in the country, is projected to grow by 6.4 per cent or 1,12,000 bpd year-on-year in 2019, LPG demand growth will also remain robust in 2019 at 5 per cent (40,000 bpd) - driven by the flagship Ujjwala scheme to promote clean cooking fuel in rural areas.

On the refining side, India is the next largest contributor of Asia’s crude oil refining capacity, after China. In 2018, India’s total refining capacity was 5.01 million barrels per day (Mmbd), which is 15% of Asia’s total refining capacity. That capacity is set to grow at an average annual growth rate (AAGR) of 5.3% to 6.525 Mmbd in 2023. The country’s total crude distillation unit capacity, coking capacity, catalytic cracker capacity and the hydropcracking capacity are also expected to increase, during the same outlook period of 2018-2023.

In 2023, three of India’s 23 refineries will account for more than one-quarter of India’s 6.525 MMbpd refining capacity. They include the Jamnagar II (704,000 bpd), Jamnagar I (660,000 bpd) and Vadinar (405,000 bpd) facilities. During this period, the 180,000-bpd Barmer refinery is expected to start operations in 2022 & the announced 400,000-bpd Jamnagar III refinery is set to start operations in 2023.

Securing a market for crude volumes is also a critical strategic goal for global NOC exporters to avert the risk of resource stranding. Securing access to the most competitive refining capacity increases NOC’s ability to place crude in an increasingly difficult market.

The ideal investment location requires three main characteristics: a big oil market, strong demand growth and a deficit in refined products. India ticks all the boxes. Oil consumption is 5 million b/d – less than half China’s 12 million b/d but big enough. Refining capacity exceeds domestic needs at present. But that will quickly change – much more capacity will be needed in the coming years. Annual demand growth is set for sustained growth, accelerating beyond China’s growth rate by the mid-2020s. No other country on the planet can match that volume growth over this period.

This formed the backdrop for Russia’s Rosneft Oil Co. PJSC’s entry into the market in 2016, acquiring 49% stake in Essar & access to a 400kbd refinery. Saudi Armaco and Adnoc also envisage a 50% stake in a proposed 1.2 million b/d refinery which will be the biggest in Asia. Iran has also committed to invest about 15 billion rupees to expand a refinery run by Chennai Petroleum Corp. These investments will arm these companies, which are already low on the supply cost curve, with highly competitive refining assets capable of weathering changing product consumption as India’s economy grows and the energy transition starts to take effect. Further these companies, in turn, are the natural partners for Indian NOCs that need to invest in new refining capacity and access crude.

Whilst there is a risk of India diversifying away from oil in the energy mix, for the time being, this seems unlikely. Oil is the only practical solution for India to meet its transportation needs as it develops infrastructure and a burgeoning middle-class embraces more motorcycles and cars.

**The Indian Opportunity**

**The Event**

The Global Refining & Petrochemicals Congress (GRPC) is a leading international forum for policy makers, asset owners, licensors, contractors, technology majors, research organisations & equipment suppliers to explore next generation downstream opportunities whilst collaborating on emerging & future risks across industry markets.

The conference builds upon the existing knowledge of experts & industry stakeholders defining critical areas of collaboration including: smart manufacturing, renewable fuels, sustainability, commercial opportunities, regulatory compliances, operational excellence, process technology innovations, catalyst developments & complex integrations whilst highlighting the global & regional market trends. The concurrent exhibition showcases international technology & equipment suppliers displaying the latest in equipment, technology, services & solutions for the downstream industry.

It also serves as a niche-networking forum, providing an opportunity to meet and interact with the leading experts, technology partners, researchers, colleagues and friends from academia.

Attracting a diverse and eclectic mix of speakers, delegates, exhibiters and attendees, GRPC facilitates the exchange of ideas and discussions on pertinent energy-related issues, while simultaneously meeting the strategic objectives of the industry, making it the most important event for those involved in the refining and processing of hydrocarbons.

Showcasing 50+ Speakers & 400+ Attendees from over 200 global organizations and themed “Downstream 4.0 – Smart Manufacturing, Transformation & Sustainability”, GRPC 2019 is dedicated to facilitating the global downstream industry’s transition to an agile, lean & sustainable future.
The Conference

The Global Refining & Petrochemicals Congress 2019 tackles the most prevalent issues facing the global refining & petrochemical industry. The summit agenda stimulates learning through panel debates, technical case studies and keynote sessions which ensure you leave with the skills and knowledge required to overcome the challenges currently affecting your business and operations. The theme for this year’s congress is:

“DOWNSTREAM 4.0 – SMART MANUFACTURING, TRANSFORMATION & SUSTAINABILITY”

Call For Papers

The Advisory Board has developed a list of focus topics that are considered timely and appealing for presentations in the conference on which authors are requested to submit related papers. Invited authors would present their respective papers during the technical or interactive sessions scheduled during the conference.

Before a paper is invited for presentation at GRPC 2019, an author must first submit a comprehensive abstract for consideration. Starting March 01, 2019 interested authors should visit www.refpet.com and click the “Abstract Submission” tab to find instructions for submitting abstracts electronically using GRPC’s online abstract submission system. Abstracts must be in English & should not exceed 400 words. They will be evaluated based on relevance, uniqueness/originality, technical content, and clarity. Key areas for deliberations to be addressed during the conference include the following:

- Global Downstream Outlook
- Downstream 4.0 - Smart Manufacturing & Digital Transformation
- New Pathways - Refinery & Petrochemicals Integration
- Operational Excellence: Unlocking Business Value & Asset Optimisation
- Process Technology Innovations - Refining
- India Downstream Outlook
- Sustainable Refining - Co-Processing, Renewables & Future Fuels
- Safety Excellence - People, Asset Integrity & PSM
- Process Technology Innovations - Petrochemicals
- Next Generation Catalysts

I very much enjoyed attending GRPC 2017 and learned quite a lot of the downstream oil & gas industry in India as well about global trends in the industry. Given the opportunity I will definitely attend the next Congress in 2019. Thanks for a great event!

Dr. Martin A. Turk
Director, Downstream O&G Global Solutions Architect Industry Business, Schneider Electric
The concurrent exhibition provides you with an excellent opportunity to showcase your products and services to decision makers and influencers from the oil & gas industry in the region.

### Exhibitor Profile
- Plant Operators: Refinery, Petrochemicals, Chemicals, Speciality Chemicals
- Technology Licensors
- Catalyst
- Process engineering
- EPC Contractors & Maintenance
- Process Plant & Equipment
- Automation & Smart Manufacturing
- Pumps, Valves, Compressors & Rotating Equipment
- Heat Exchangers, Boilers, Fired Heaters
- Cable Manufacturers, Electrical Control Systems
- Instrumentation & Control Systems
- HSE Systems, Technology, Environment Management
- Pipeline & Transportation
- Gasification & Re-gasification Technology & Equipment
- Energy Efficiency, Energy Storage
- Filters & Filtration Systems
- Clean Fuel Technology
- Bio Refinery
- IT, IoT, AI, SAS
- Consultants – Process Technology Systems, HSE, OPEX etc.
- Power Generation Equipment
- Service Companies – OEM, Training, Certification
- Waste to Energy

### Attendee Profile
- Top Management of Oil Producers, Refining, Petrochemical & Chemical Companies
- HSE Head/Engineers/Managers
- Heads & Managers (Operations, Sales, Marketing, Strategy & Business Development)
- Heads, Managers (Production, IT Service, Plant, Terminal & Project)
- Pollution control specialists
- Regulators, Legal Policy Makers & Govt. Officials
- Technology/Equipment Suppliers & Manufacturers
- Investment Banking/Financiers
- Engineering & EPC Contractors
- Head Refinery/Petrochemical Plant
- Industry Associates from India & abroad
- Heads & Managers (Purchase, Technical and Process & Technology)
- Municipalities
- New Technology Providers
- Refining & Petrochemical Engineers
- R & D Engineers & Scientists
- Trade Media Personnel
- Academia
The Legacy

Global Refining & Petrochemicals Congress (GRPC) is today one of the premier global forums that brings together the national, regional & global stakeholders of industry to deliberate, demonstrate & collaborate on downstream industry. Through the intellectual capital that accrues through the plenary and technical tracks of it’s conference, GRPC has consistently stood out as a thought - starter, change - agent and signpost . An event of immense significance to the sector, the success of Global Refining & Petrochemicals Congress has been well substantiated in its previous editions through widespread acknowledgement and attendance from the global spill mitigation fraternity.

Each edition has enriched its legacy presenting a rich assortment of diverse, pertinent and eminently interesting subjects of concern to the downstream industries, whilst showcasing the technological depth and knowledge repertoire of the industry to the wider global audience; thus setting the stage for the future through “the age of downstream transformation”.

INDUSTRY PARTNERS

[Industry logos and names]

MESSAGE

[Message from a dignitary]

[Signature]
MESSAGE

I am glad to know that the Global Refining & Petrochemicals Congress (GRPC-2017) is to be organised during 25th-26th May, 2017 in Mumbai by the Energy & Climate Initiatives Society (ENCIS). The congress would be one of the most important events for those involved in the refining and processing of hydrocarbons. This event will not only showcase unique investment opportunities in the Refining and Petrochemical sectors in India but would also facilitate the national, regional and global industry to deliberate and collaborate on meeting the strategic objectives of the industry.

Being one of the most diversified of all industrial sectors, covering thousands of commercial products, the Petrochemical industry occupies a pivotal position in meeting basic needs and improving quality of life. Driven by the Hon’ble Prime Minister’s initiatives like Make in India, Digital India, Swachh Bharat, Start Up India, Skill India, etc., a number of Indian, State owned and private energy companies are making major investments to boost their Petrochemical activities and are expected to become significant players in the global sector.

Key application industries, like packaging, construction & automobiles have pulled up demand and the declining prices have resulted in higher offtake by downstream converters.

My best wishes to all the participants for a very successful event.

(AnanthKumar)

21 April, 2017
PARTICIPATING ORGANISATIONS

ATTEND

Global Refining & Petrochemicals Congress Conference offers attendees a thought provoking technology & networking forum showcasing global industry experts. Learn, Share, Experience & Network with the national, regional & global leaders of the Downstream Industry.

EXHIBIT

Exhibit at the region’s largest event on Downstream Industry, showcase your brand’s products and services to industry leaders and key decision-makers of the Oil & Gas sectors. Benefits include assistance in elite buyer meetings & discounted partnership opportunities.

PARTNER

GRPC 2019 offers a host of high visibility advertising and sponsorship opportunities for your brand. Benefits include exclusive privileges & coverage. Our team would be pleased to assist you in maximizing your participation objectives, ensuring high returns on your investments.
Located in the heart of the city, the iconic glass building of Le Meridien New Delhi has been recognised as one of the 100 Icons of Delhi. The hotel is located close to the institutions of both power and pleasure. The hotel towers over the historic landscape of Lutyen's Delhi surrounded by the President Palace - Rashtrapati Bhawan, Parliament House, Ministries, Government Institutions and the notable landmark - India Gate. Convention centres like Pragati Maidan and Vigyan Bhawan are in the close vicinity of the hotel. The main shopping hub Connaught place and the shoppers delight Janpath market, is within walking distance from the hotel. Its a perfect getaway for a business traveller who is also looking for some recreation nearby in the evening.

The Energy and Climate Initiatives Society (ENCIS) is a registered non-profit organisation that supports, encourages & catalyzes the development, discussion and dissemination of consequential research and projects in energy and climate protection industries. An independent, nonpartisan organisation that facilitates stakeholder's analysis and decisions on policy frameworks and initiatives within the global frameworks of sustainable development.

ENCIS produces exclusive and pertinent multi-platform contents fostering inclusive economic prosperity through safer, cleaner, more equitable and climate-friendly energy initiatives. With leading experts on environment, natural resources and energy, the Advisory Board of ENCIS provides the key impetus to the organisation’s initiatives & strategic insights on the evolving global industry, steering an immensely profound impact on the economic, environmental and strategic landscapes of the future.