

| 28th Energy Technology Meet: 28-30 October 2025<br>"Energising Viksit Bharat through Sustainable Refining"<br>Hyderabad Internation Convention Centre (HICC), Hotel- Novotel,Hyderabad |         |                                                                                                  |                     |                             |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------|---------------------|-----------------------------|------------|
| Theme:                                                                                                                                                                                 |         |                                                                                                  |                     |                             |            |
| Day-1 Hall-A                                                                                                                                                                           |         |                                                                                                  |                     |                             |            |
| Session                                                                                                                                                                                | User ID | Title                                                                                            | Name                |                             | Country    |
| 1200-1330                                                                                                                                                                              |         | Plenary Session–1: Driving Refining toward a sustainable future                                  |                     |                             |            |
|                                                                                                                                                                                        |         | Session Chair: Mr. Arvind Kumar                                                                  |                     | IOCL R&D                    | India      |
| 1.1                                                                                                                                                                                    | 836     | Changing Energy landscape                                                                        | Mr. Partha Maitra   | Reliance Industries Limited | India      |
| 1.2                                                                                                                                                                                    | 1222    | Securing the Transition: Aligning Energy Security with Decarbonization                           | Mr. Gurminder Singh | Shell Catalysts & Tech. Ltd | UK         |
| 1.3                                                                                                                                                                                    | 2757    | Driving refining towards a sustainable future                                                    | Mr. Siddhartha Saha | Axens                       | India      |
| 1.4                                                                                                                                                                                    | 1643    | Driving Refining toward a Sustainable Future                                                     | Mr. Rajesh Samarth  | CLG                         | USA        |
| 1.5                                                                                                                                                                                    | 2879    | Changing global Energy Landscape                                                                 | Mr. Keith Couch     | Honeywell UOP               | UAE        |
| 1430: 1600                                                                                                                                                                             |         | Plenary Session–2: Navigating evolving energy landscape: emerging trends & strategic positioning |                     |                             |            |
|                                                                                                                                                                                        |         | Moderator: Ms. Vartika Shukla, CMD                                                               |                     | Engineers India Ltd         | India      |
| 2.1                                                                                                                                                                                    |         | Mr. Bhaskar J Phukan, MD                                                                         |                     | NRL                         | India      |
| 2.2                                                                                                                                                                                    |         | Mr. S. Bharathan, Director (R)                                                                   |                     | HPCL                        | India      |
| 2.3                                                                                                                                                                                    |         | Mr. Matt Spalding, Vice President                                                                |                     | UOP                         | USA        |
| 2.4                                                                                                                                                                                    |         | Mr. Anders Norup Olsen                                                                           |                     | TOPSOE                      | Denmark    |
| 2.5                                                                                                                                                                                    |         | Mr. Marc Nicolas                                                                                 |                     | Ketjen                      | Netherland |
| 2.6                                                                                                                                                                                    |         | Mr. Gaurav Srivastava                                                                            |                     | S&P Global                  | Dubai      |
| 1630-1800                                                                                                                                                                              |         | Plenary Session–3: Powering Refining and Petrochemicals towards Excellence and Agility           |                     |                             |            |
|                                                                                                                                                                                        |         | Moderator : Shri Shri. R Ramachandran, Ex Director (R)                                           |                     | Ex-BPCL                     | India      |
| 3.1                                                                                                                                                                                    |         | Mr. Alok Sharma                                                                                  |                     | IOCL R&D                    | India      |
| 3.2                                                                                                                                                                                    |         | Mr. Prabh Das, CEO                                                                               |                     | HMEL                        | India      |
| 3.3                                                                                                                                                                                    |         | Mr. R K Singhal, Director (BD)                                                                   |                     | GAIL (India) Ltd            | India      |
| 3.4                                                                                                                                                                                    |         | Mr. Kumaravelu, Balachandran                                                                     |                     | Baker Hughes                | India      |
| 3.5                                                                                                                                                                                    |         | Mr. Bharat Goenka                                                                                |                     | NextChem                    | India      |
| 3.6                                                                                                                                                                                    |         | Mr. Rajesh Samarth, CEO                                                                          |                     | CLG                         | USA        |
| 3.7                                                                                                                                                                                    |         | Mr. Vipin Goel                                                                                   |                     | Grace                       | India      |

| Day-2 Hall-A |      |                                                                                                                                                  |                               |                                 |           |
|--------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-----------|
| 0900 - 1045  |      | Technical Session 4: TechTechnology Frontiers in Petrochemicals: Efficiency, Integration & Sustainability                                        |                               |                                 |           |
|              |      | Moderator : Shri Rajiv Agarwal, Director (T)                                                                                                     |                               | EIL                             | India     |
|              |      | Session Chair: Shri Sanjay Kumar Papneja, CGM IOCL                                                                                               |                               | IOCL                            | India     |
| 4.1          | 2550 | Flexible Routes for Crude to Chemicals at lower CAPEX and OPEX                                                                                   | Shubrata Guru                 | Chevron Lummus Global LLC       | USA       |
| 4.2          | 2666 | CC2C Technology by Aramco                                                                                                                        | Gopal Juttu & Alexis Paillier | Aramco ASIA/ Axens              | India     |
| 4.3          | 2478 | Improving Ethylene Profitability with the Paradigm-Changing UOP NEP Process                                                                      | Abhijit Pal                   | Honeywell UOP                   | USA       |
| 4.4          | 2374 | Rewiring the Chemicals Value Chain: Pathways in Phenol and Acetyl Chemistry                                                                      | Jing Wang                     | KBR                             | USA       |
| 4.5          | 2535 | Valorization C4 Cuts through Conser's portfolio: Butyl and halo-butyl rubbers, MAN and Derivatives                                               | Simone Morfuni                | Next chem                       | Itly      |
| 4.6          | 2630 | Advances in PDH technology for sustainable Propylene supply                                                                                      | Praveen Lokhande              | GAIL (India) Ltd                | India     |
| 1115-1300    |      | Technical Session - 6: Technology Frontiers in Refining: Efficiency, Integration & Sustainability                                                |                               |                                 |           |
|              |      | Session Chair: Shri Sanjay Khanna, CMD                                                                                                           |                               | BPCL                            | India     |
|              |      | Session Chair: Shri S Sarkar, ED(OPS)                                                                                                            |                               | IOCL                            | India     |
| 6.1          | 1531 | Integrating Fertilizer Production into Refinery & Petrochemical Complexes – Driving towards Sustainability                                       | Chiranjib Halдар              | Technip Energies India Limited  | India     |
| 6.2          | 1817 | Empowering India's Refinery–Fertilizer Ecosystem: The Role of WSA (Wet gas Sulphuric Acid) in Achieving India's Industrial Self-Reliance         | Chetan Mittal                 | Topsoe India Pvt. Ltd.          | India     |
| 6.3          | 891  | Linde STARBRIDGE™ Technology – Commercial Design and Implementation of Electric Cracking Furnaces                                                | Suneel Koul                   | Linde Engineering India Pvt Ltd | India     |
| 6.4          | 392  | Harnessing Waste Heat for Improved Efficiency                                                                                                    | Soumendra Banerjee            | Honeywell UOP                   | USA       |
| 6.5          | 1379 | Novel Methodolgy & Approach Devised By EIL to Select Optimum Revamp Configuration of CDU with Lowest Energy Number In India                      | Abhijit K. Ram                | Engineers India Ltd.            | India     |
| 1400-1545    |      | Technical Session - 8: Driving Innovation for Operational Excellence and Reliability                                                             |                               |                                 |           |
|              |      | Session Chair: Shri. Prasad Panicker, Chairman                                                                                                   |                               | NAYARA                          | India     |
|              |      | Session Chair: Shri. Abhay Raj Singh Bhandari, ED MR                                                                                             |                               | BPCL                            | India     |
| 8.1          | 2493 | Enhancing Predictability in Refining and Petrochemical Project Execution: A Global Approach to Overcoming Challenges and Adopting Best Practices | Manoj Prabhakar               | Independent Project Analysis    | Singapore |
| 8.2          | 2427 | Transforming Refinery Planning: BPCL's Journey from Basic Crude Assay Management to Advanced Operational Optimization with AVEVA Spiral          | Shekhar Gunwal                | BPCL                            | India     |
| 8.3          | 2420 | LLM Powered Crude Oil Blend Yield Prediction                                                                                                     | Varun Nidhi                   | Kinben Innovation Pvt. Ltd      | India     |
| 8.4          | 742  | Rational Catalyst Design via DFT for JP-10: Enabling Indigenous High-Density Defense Fuel Production                                             | Naresh Kottari                | HPCL                            | India     |
| 8.5          | 2688 | An Effort towards De-carbonization in Oil&Gas Industries with Heavy-Duty Gas Turbines Burning up to 100% Hydroge                                 | Dullal Ghosh                  | Baker Hughes India              | India     |
| 8.6          | 879  | Make In India proposal for PP Grades which are currently imported in India                                                                       | Manish Sarashwat              | LyondellBasell                  | India     |

| 1615-1800    |      | Technical Session - 10: Synthetic Aviation Fuel (SAF)                                                                                |                              |                                              |       |
|--------------|------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------|-------|
|              |      | Session Chair: Dr. R K Malhotra, President                                                                                           |                              | HAI                                          | India |
|              |      | Session Chair: Shri Siddharth Jain, VP                                                                                               |                              | Emarat                                       | UAE   |
| 10.1         | 2372 | Innovative Paths to Cleaner Skies                                                                                                    | Sakthivelan Durai            | Honeywell UOP                                | USA   |
| 10.2         | 2547 | Meeting India's SAF Demand through Waste-to-SAF and e-SAF Production: Unlocking the Fischer-Tropsch Pathway with Velocys Technology. | Craig Harris                 | Velocys Inc                                  | USA   |
| 10.3         | 1828 | Most optimal pathways for production of SAF                                                                                          | Raju Chopra & Manish Das     | Topsoe India Pvt. Ltd.                       | India |
| 10.4         | 2331 | Novel Renewable Feedstock Treatment Enabling Low-Cost Production of SAF via Co-Processing in Refineries                              | Soumitra Deshmukh            | Sulzer Chemtech USA                          | India |
| 10.5         | 1550 | From Molecules to Miles: A Unified Approach to Green Fuels, Petrochemicals & Polymers                                                | Vishal Varshney              | LUMMUS                                       | India |
| Day-2 Hall-B |      |                                                                                                                                      |                              |                                              |       |
| 0900-1045    |      | Technical Session - 5: Advances in Green Hydrogen value chain, Storage & Transportation                                              |                              |                                              |       |
|              |      | Session Chair: Dr. Alok Sharma, Dir (R&D)                                                                                            |                              | IOCL                                         | India |
|              |      | Session Chair: Ms. Tulika Raj, CEO                                                                                                   |                              | SunGreenH2                                   | India |
| 5.1          | 2753 | Strategizing India's Green Hydrogen Commercialization                                                                                | DR. Ajinkya Kamat            | IESA                                         | India |
| 5.2          | 2734 | Green Hydrogen Technologies – Technology, Integration & Scale-up for Industrial Decarbonization                                      | Samir Saxena                 | Renew                                        | India |
| 5.3          | 2699 | Life cycle and techno-economic assessment of green hydrogen production and its use for E-fuels: An Indian perspective                | Prof Yogendra Shastri        | Indian Institute of Technology Bombay (IITB) | India |
| 5.4          | 2422 | Transforming Refinery Off-Gases into Valuable Hydrogen Source: A successful demonstration of BharatH2Sep Technology in Refinery      | Nitin Somkuwar               | BPCL                                         | India |
| 5.5          | 2432 | Integrated Solutions for the Drying and Purification of H2 and CO2                                                                   | LI Jonathan                  | Axens Pvt Ltd                                | India |
| 1115-1300    |      | Technical Session - 7: Advances in Bio-Refining and Clean Fuels                                                                      |                              |                                              |       |
|              |      | Session Chair: Shri P.S. Ravi, Director                                                                                              |                              | FIPI                                         | India |
|              |      | Session Chair: Shri V K Maheshwari, ED (R&D)                                                                                         |                              | HPCL                                         | India |
| 7.1          | 2467 | Promoting LNG as the Energy Transition Fuel in Transportation Sector                                                                 | Tanuj Sharma                 | Invest India                                 | India |
| 7.2          | 916  | Second Generation (2G) Ethanol Bio-Plants: Troubleshooting with Novel Distillation Tray Design                                       | Ramaniya Gorle/Ritesh Mittal | Engineers India Ltd.                         | India |
| 7.3          | 249  | Waste to Wealth: Sustainable Green Silica Production from 2G Biorefinery Boiler Ash                                                  | Dr. Parmeshwar Patil         | BPCL                                         | India |
| 7.4          | 405  | Transforming Plastic Waste into Fuel by Demonstration of Plastic Pyrolysis Oil Co-processing in FCCU with Environmental Gains        | Hemant Mishra/ Ramanathan A  | HPCL                                         | India |
| 7.5          | 2792 | Biorefining of lignocelluloses for bioenergy and bioproducts                                                                         | Dr. Sachin Kumar             | HBTI                                         | India |

| 1400-1545    |      | Technical Session - 9: ESG Integrated Refining                                                                                             |                          |                                |           |
|--------------|------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------|-----------|
|              |      | Session Chair: Shri M K Biswas, ED                                                                                                         |                          | GAIL (India) Ltd               | India     |
|              |      | Session Chair: Shri Satyam Priyadarshy, CEO                                                                                                |                          | Reignite Future                | USA       |
| 9.1          | 2423 | Transforming Crude into Value: FCC Innovation for Petrochemical-Driven Refining                                                            | Corbett Senter           | BASF India Ltd.                | India     |
| 9.2          | 1108 | From Idle to Impact: Repurposing Hydrogen Assets into High-Value Syngas Production                                                         | Shailendra Ghuryani      | Topsoe India Pvt. Ltd.         | India     |
| 9.3          | 662  | Scale-Up & Demonstration of Bio Catalysed CO2 Capture Technology                                                                           | KB Srinivas              | IOCL R&D                       | India     |
| 9.4          | 2489 | Advancing Energy Efficiency with Orcan Organic Rankine Cycle (ORC), Waste Heat to Clean Electricity                                        | Sadegh Arefi             | Orcan Energy, Germany          | Germany   |
| 9.5          | 2735 | Catalytic Water Activation for Refinery Water and Waste Water Treatment: TWA Technology for Sustainable Petroleum Operations               | Reepal Joshi             | MyTWA Aqua Solutions Pvt. Ltd. | India     |
| 9.6          | 2866 | Unlocking Clean Energy Security Utilizing Coal and Biomass: The Allam-Fetvedt Cycle's Role in Reliable Polygeneration                      | P Adiga                  | 8 Rivers Capital, LLC          | USA       |
| 1615-1800    |      | Technical Session - 11: Innovations in Refining                                                                                            |                          |                                |           |
|              |      | Session Chair: Shri Kaushik Singha, ED (R&D)                                                                                               |                          | IOCL                           | India     |
|              |      | Session Chair: Shri Mukesh Sahdev, CEO                                                                                                     |                          | Xanalysts                      | Australia |
| 11.1         | 2368 | Super Human - Integrating all key refinery applications and key documents                                                                  | Shamik Bhattacharya      | BPCL                           | India     |
| 11.2         | 873  | Refining the Future: Catalytic Innovation in India's Evolving Energy Landscape                                                             | Carel Pouwels            | Ketjen                         | Singapore |
| 11.3         | 1278 | Reliability improvement with more agile, cost-efficient and effective operations in Refineries through blend of 'Innovations & Research    | Hans Zettler             | HTRI                           | USA       |
| 11.4         | 770  | Challenges of Scaling up Blue Hydrogen                                                                                                     | Siddhartha Bandyopadhyay | Bechtel India Pvt. Ltd         | India     |
| 11.5         | 1037 | Accelerating Indigenous Technology Commercialization: Case Studies on challenges and pathways                                              | Deepak Kumar Jha         | HPCL                           | India     |
| Day-3 Hall-A |      |                                                                                                                                            |                          |                                |           |
| 0900-1045    |      | Technical Session - 12: Accelerating Indigenous Technology Development                                                                     |                          |                                |           |
|              |      | Session Chair: Shri Anil Kumar, ED (R&D)                                                                                                   |                          | Engineers India Ltd.           | India     |
|              |      | Session Chair: Shri A T Naidu, ED                                                                                                          |                          | HPCL                           | India     |
| 12.1         | 2425 | HP-COAT: Breakthrough Single Step Crude to Chemicals Technology Advancing Towards Demonstration Plant                                      | Somanath Kukade          | HPCL                           | India     |
| 12.2         | 1045 | Crude Oil Selection for Crude Oil to Chemical 'CoTC' Complexes                                                                             | Himanshu Sharma          | Engineers India Ltd.           | India     |
| 12.3         | 2701 | Synthetic Natural Gas (e-Methane) from CO <sub>2</sub> Hydrogenation: Advances in Catalysis and Pathways for Sustainable Energy Transition | T Nanda Kumar            | GAIL (India) Ltd               | India     |
| 12.4         | 2468 | Ethylene Production Pathways to Net Zero                                                                                                   | Samya Gupta              | BPCL                           | India     |
| 12.5         | 780  | Scaling up AEM Electrolyzers to Megawatt Capacity – Key Challenges and Mitigation Strategies                                               | Bharati Panigrahy        | HPCL                           | India     |



| 1115-1300    |      | Technical Session - 14: Digital & Deep-Tech Disruption for Resilient Refining                                                                           |                        |                          |       |
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|              |      | Session Chair: Shri R C Agarwal ED                                                                                                                      |                        | CHT                      | India |
|              |      | Session Chair: Shri M Sankar, ED KR                                                                                                                     |                        | BPCL                     | India |
| 14.1         | 1025 | Energy Intelligent (EI) Tools for Optimisation of Steam, Power, and Process Systems: Unlocking Energy Efficiency in the Refining & Petrochemical Sector | Srivardhan Grandhi     | Engineers India Ltd.     | India |
| 14.2         | 926  | MolOptix.AI REVEAL– Real-Time Molecule-Level Optimization for Smarter Refining and Petrochemicals                                                       | Appanu Sushvanth Reddy | MRPL                     | India |
| 14.3         | 2428 | Application of IIoT to achieve ‘Operational Excellence’ in Refinery operation                                                                           | Ashwani Malhotra       | IIT Delhi                | India |
| 14.4         | 996  | Agentic AI applications for transforming R&D, Operations, Reliability, and Safety in Downstream                                                         | Shailesh Bansal        | LUMMUS                   | India |
| 14.5         | 1269 | The Intelligent Plant: Integrating AI for Smarter Turnarounds, Optimized Inventory, and Enhanced Safety                                                 | Uday Prabhu desai      | Detect                   | India |
| Day-3 Hall-B |      |                                                                                                                                                         |                        |                          |       |
| 0900-1045    |      | Technical Session - 13: Innovation in Catalysts and scaling lab to field                                                                                |                        |                          |       |
|              |      | Session Chair: Shri Alex Pulikottil, ED (R&D)                                                                                                           |                        | IOCL                     | India |
|              |      | Session Chair: Shri N Chandrashekhar, ED (R&D)                                                                                                          |                        | BPCL                     | India |
| 13.1         | 1048 | The Continued Growth of the Ebullated Bed Resid Hydrocracking Process                                                                                   | Mukund Balachandran    | WR Grace                 | India |
| 13.2         | 872  | Catalyst Innovation: Shaping a Greener, More Efficient Refining Industry                                                                                | Megha Agrawal          | Ketjen                   | India |
| 13.3         | 371  | i-ZN22: Pathbreaking Catalyst for Polypropylene Production                                                                                              | Gurmeet Singh          | IOCL R&D                 | India |
| 13.4         | 2693 | HP NANOPRO: An advanced catalyst for maximizing Propylene and Ethylene yields in FCC reactor                                                            | Pramod Kumar           | HPCL                     | India |
| 13.5         | 736  | Regenerated Catalyst pool management                                                                                                                    | Siddharth Sagar        | Eurecat                  | India |
| 13.6         | 801  | Next-Generation Acetylene Hydrogenation Catalysts for Steam Crackers: Redefining Selectivity, Stability and Sustainability                              | Aravind Narayanam      | Sud-Chemie India Pvt Ltd | India |
| 1115-1300    |      | Technical Session - 15: Domestic New Product Innovation                                                                                                 |                        |                          |       |
|              |      | Session Chair: Shri Nanda Kumar, Director (R)                                                                                                           |                        | MRPL                     | India |
|              |      | Session Chair: Shri M Jose Chacko, ED, BR                                                                                                               |                        | BPCL                     | India |
| 15.1         | 931  | Refinery & Active Pharma Intermediate integration - Case study with first indigenous Isobutyl Benzene process technology                                | Karthick R             | MRPL                     | India |
| 15.2         | 1416 | Indigineous Technology for Solvents - HPDAK                                                                                                             | Sanjay Lakshman        | HPCL                     | India |
| 15.3         | 1223 | Manufacturing Sulfur Bentonite- a specialty fertilizer product                                                                                          | Harpreet Singh         | IOCL JR                  | India |
| 15.4         | 2611 | Indigenous Refining Catalysts manufacturing for Self-Reliance- A landmark stride in India’s Atmanirbhar Bharat journey.                                 | Yamini Gupta           | IOCL R&D                 | India |
| 15.5         | 1204 | Driving “Make In India”: De-Aromatized Solvent Production at BPCL Mumbai Refinery                                                                       | Shubham Gupta          | BPCL                     | India |