6th ANNUAL DOWNSTREAM ASIA
INTEGRATING PETROCHEMICAL ASIA

30 – 31 October 2013 • Sands Expo & Convention Centre, Singapore

Asia’s largest conference and exhibition for the downstream refining and petrochemical industries

KEY STATISTICS FOR DOWNSTREAM ASIA

500+ DOWNSTREAM & PETROCHEMICAL PROFESSIONALS

50+ EXPERT SPEAKERS

30+ INTERNATIONAL EXHIBITORS

35+ INDUSTRY LED CONFERENCE SESSIONS

Silver Sponsor:

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Book your delegate pass before 2 September 2013 to get up to $350 DISCOUNT

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Qualified for 10 PDUs by the Professional Engineers Board Singapore
Dear Colleague,

It is our pleasure to invite you to our 6th Annual Downstream Asia Conference – the largest conference and exhibition for the downstream and petrochemical industries in Asia Pacific, to be held in Singapore from 30-31 October 2013.

The refining and petrochemical sector in the Asia Pacific region continues to see rapid growth, driven by rising demand for refined products in the region. While investments are escalating, opportunities for developing partnerships within the sector continue to present themselves. Meanwhile, each individual stakeholder is challenged to excel amid the changing marketplace.

- What are the key strategies that industry leaders are taking to improve their margins?
- How to weave the key value drivers into input, output and asset related parameters to ensure success?
- How to increase the overall competitiveness by improving efficiency with more controlled cost?
- What are the latest technology developments to advance the downstream industry?

The 6th Annual Downstream Asia brings together key players in the oil & gas, refining and petrochemical industries to probe and find answers to these arising questions. Plenary keynotes and case studies are designed to shed lights on business-critical issues such as: market trends, partnership opportunities, margin improvements, process and efficiency, latest process technologies, catalyst developments, and integration of petrochemical complexes.

Part of the Singapore International Energy Week (SIEW) and supported by the Energy Market Authority of Singapore (EMA), Downstream Asia is expected to attract more than 500 attendees this year. This is the perfect platform for networking, seeking partnerships for joint ventures, learning the latest technologies, and benchmarking your operations with the industry’s leading organisations.

Sign up today to take advantage of the biggest gathering in Asia’s downstream sector!

I look forward to meeting you in October.

Warm Regards,

Cathy Gu
Project Director

Ps. Don’t forget to book your delegate pass before 2 September to save up to $350.
6 REASONS WHY YOU NEED TO BE PART OF DOWNSTREAM ASIA

A high quality programme; each presentation goes through a rigorous selection process via our Advisory Board, made up of senior representatives from the region’s leading NOCs, IOCs and learning technology providers.

Gain in-depth market knowledge with an operator-led conference programme covering both Strategic and Technical topics, including hard-hitting keynotes and case studies from over 50 international speakers.

Save time and money by meeting all the key suppliers in just two days at Asia’s largest downstream and petrochemical-focused exhibition.

Find solutions to ongoing issues by networking with over 500 participants directly involved in downstream refining and petrochemicals.

Realise the collective value of the event’s co-location with Asia’s largest gathering of energy professionals at Singapore International Energy Week (SIEW), set to attract over 15,000 visitors.

Learn about the latest technologies and developments by attending the NEW Technology showcases.

Earn 10 PDUs by attending Downstream Asia

Downstream Asia is qualified for 10 PDUs by the Professional Engineers Board Singapore. Attend Downstream Asia as a delegate this year and add towards the necessary PDUs to renew your practising certificate.

The Professional Engineers Board Singapore (PEB) is a statutory board in the Ministry of National Development. Its mission is to safeguard life, property, and welfare of the public by setting and maintaining high standards for registering professional engineers, and by regulating and advancing the practice of professional engineering.

Contact us for more information on +65 6590 3970 or email info@downstream-asia.com
## PROGRAMME AT A GLANCE

### DAY ONE: 30 OCTOBER 2013, WEDNESDAY

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<th>AM</th>
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<tr>
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<td>The Global Landscape for Refining and Petrochemicals: 2020 Vision</td>
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<td>Update of Shale Oil and Gas: How is it impacting the petrochemical industry?</td>
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<td>Improving Refining and Petrochemical Competitiveness &amp; Sustainability</td>
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| Networking Lunch |

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<th>PM</th>
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<tr>
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<td>Addressing Pressing Challenges for Refineries</td>
<td>Addressing Pressing challenges for Petrochemicals</td>
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<td></td>
<td>- Improving refining margins</td>
<td>- Value creation in petrochemical industry</td>
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<td>- Improving fuel quality for cleaner fuels</td>
<td>- Overcoming feedstock challenges</td>
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<td>- Bio fuels</td>
<td>- Managing alternative feedstock: Biodiesel, LPG, Shale gas</td>
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<td>- Project management (EPO) &amp; cost optimisation</td>
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Close of Day One and Cocktail Reception

### DAY TWO: 31 October 2013, Thursday

<table>
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<td></td>
<td>Analysing Dynamics of the Downstream Sector in the Asia Pacific Region: On-going projects, future strategy, and development plans</td>
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<td>Featuring project updates from the region</td>
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<td>Successful Refining &amp; Petrochemical Integration</td>
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| Networking Lunch |

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<th>PM</th>
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<td></td>
<td>Process Technologies</td>
<td>Plant Optimisation &amp; Operational Excellence</td>
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<td>- Catalytic Cracking Technologies</td>
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<td>- Residue Conversion Technologies</td>
<td>- Improving energy efficiency and carbon footprint</td>
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<td>- New Technologies for Petrochemicals: Aro-matics, Olefin Technologies</td>
<td>- Reliability and Maintenance</td>
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<td>- Process Safety Management</td>
<td>- Effective Shutdowns and Turnarounds</td>
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Concluding Remarks and Close of Downstream Asia 2013

### PARTICIPATING COMPANIES

- BPH MIGAS
- Cairo Oil Refinery Company
- Chevron
- Dupont
- Eastman Chemical Singapore
- Energy Market Authority of Singapore
- Engro Polymer & Chemicals
- Evonik Degussa (SEA)
- Gulf Energy Technology and Projects
- HME
- Imam Khomeini Oil Refining Co
- KazMunayGas
- Kuwait National Petroleum Company
- Ministry of Energy and Mineral Resources Indonesia
- Petronas
- Petronas Chemical Group
- Petronas Penapisan Terengganu
- Petronas Refining & Trading
- Petron Corporation
- Petrovietnam
- PTT Energy Solutions
- PTT Global Chemical
- Qatar Gas
- S-Oil
- SCG Chemicals
- Shell Eastern Petroleum
- Shell India Markets Private Limited
- Singapore Refining Company
- Singapore Petroleum Company
- Sinopoc Tech
- SK Innovation
- Star Petroleum Refining Public Co
- TAT Petroleum
- Lotte Chemical Titan
- TonenGeneral Sekiyu K.K.
Dr. Michael B. Simpson  
Industry Manager - Refining & Petrochemicals, ABB Analytical Measurements, Quebec, Canada

Stuart Traver  
Principal - Downstream and Strategy, Gaffney-Cline & Associates, Singapore

Kamol Kosawiboonphol  
Senior Consultant - Advanced Process Control & Alarm Management, PTT Energy Solutions, Thailand

Paul Bruffell  
Senior Consultant, Process Safety, ABB Consulting, Singapore

Graham Hill  
Senior Vice-President, Hydrocarbons Asia-Pacific, WorleyParsons

Jay Raj  
Specialist Engineer, Reliability & Maintenance Engineering Support Division, Qatar Gas, Qatar

Viktor Terbrant  
Regional Business Manager, Refinery and Petrochemical, Alfa Laval

Saleh Daryabari  
Senior Process Engineer of RCD & RFCC, Imam Khomeini Oil Refining Company of Shazand, Iran

Dr. Wilaiporn Chetanachan  
Director of Corporate Technology Office, SCG, Thailand

Bashar Jazmati  
Director, Natural Resources Group, ANZ, Singapore

Shiv Sivarajah  
Vice President, ING, Singapore

Dr. Wilaiporn Chetanachan  
Director of Corporate Technology Office, SCG, Thailand

Chris Faulkner  
President and Chief Executive Officer, Breitling Energy, USA

Richard Gorry  
Managing Director, JBC Asia, Singapore

William Hsu  
Managing Partner, Sustainergy Capital, Hong Kong

Hu Wei  
Senior Vice President, Borouge, Singapore

Tan Wooi Leong  
Vice President (Oil & Gas), Jurong Consultants, Singapore

Yang, Lijing  
Regional Representative - Technology and Marketing, Sinopec Tech, Hong Kong

Kaizad Sunavala  
Advisor, Global Refining - Design for Reliability, Chevron, USA

Shailendra Mohite  
Senior Engineer-Corporate Planning, Kuwait National Petroleum Company, Kuwait

H.B. Kim  
Vice President, Head of Process Engineering Division, S-Oil Corporation, South Korea

Anil Chandramani  
Chief Investment Officer and Global Sector Head, Chemicals and Fertilizers, International Finance Corporation, USA

Fam Chew Pin  
Senior Manager, Complex Safety & Environmental Affairs, Lotte Chemical Titan, Malaysia

Simon Li  
Vice President, Singapore Manufacturing Federation (SMF), Hon Chairman, Energy & Chemicals Industry Grouping, SMF, CEO, FeosoOil Singapore

Ahmed Abdelhakam Noureldin  
Instrumentation and Automatic Control Department Manager, Cairo Oil Refinery Company, Egypt

Ir Saryono Hadiwidjoyo  
Committee, BPH Migas, Oil and Gas Downstream Regulatory Agency, Indonesia

H. B. Kim  
Vice President, Head of Process Engineering Division, S-Oil Corporation, South Korea

Tetsuya Wada  
Director of Fuel Upgrading, APAC, Clariant Catalysts K.K, Japan

P N Selvaguru  
Principal Control Engineer, Singapore Refining Company

Sharil b A Rashid  
Principal Engineer (Instrument & Control), Petronas Penapisan Terengganu, Malaysia

Syed Khalid Siraj Subhani  
President & CEO, Engro Polymer & Chemicals, Pakistan

Sharul b A Rashid  
Principal Engineer (Instrument & Control), Petronas Penapisan Terengganu, Malaysia

Steve Beeston  
Vice President - Technology, Foster Wheeler USA Corporation

Suppalerk Suppawatin  
Petroleum Process Control Manager, PTT Global Chemicals, Thailand

Joel Chow  
Managing Consultant, Downstream Oil, Asia Pacific, Wood Mackenzie, Singapore

Dr. Nguyen Van Tu  
Specialist, Petroleum Processing Division, Petrovietnam, Vietnam

Udo Jung  
Senior Partner and Managing Director, Global Leader Petrochemical Sector, The Boston Consulting Group, Germany
The 6th Downstream Asia Advisory Board reviews submissions and recommends key topics as well as innovative projects to be covered. This process is a guarantee that all presentations have been carefully selected, are industry led & free of commercial spin.

### LIST OF ADVISORY BOARD MEMBERS

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<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Company/Location</th>
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<tr>
<td>Karambir Anand</td>
<td>Principal</td>
<td>A.T. Kearney, Singapore</td>
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<tr>
<td>Michael B Simpson</td>
<td>Industry Manager, Process FTIR for Refining and Petrochemicals</td>
<td>ABB Analytical, Canada</td>
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<tr>
<td>Martin Conway</td>
<td>Manager South Asia Region</td>
<td>ABB Consulting, Singapore</td>
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<tr>
<td>Yeoh Soon Teong</td>
<td>Vice President - Measurement Product</td>
<td>ABB Industry, Singapore</td>
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<tr>
<td>Eva Andersson</td>
<td>Manager - Aromatics &amp; Syngas fertilizers, Petrochemical</td>
<td>Alfa Laval, Sweden</td>
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<tr>
<td>Nigel Newbury</td>
<td>Senior Industry Solutions Director</td>
<td>Bentley, Australia</td>
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<td>Ir Saryono Hadiwidjoyo</td>
<td>Committee Member</td>
<td>BPH Migas - Oil and Gas Downstream Regulatory Agency, Indonesia</td>
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<tr>
<td>Yunus Sajad Hussein</td>
<td>CEO and Director for South East Asia</td>
<td>Klay EnerSol, Malaysia</td>
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<tr>
<td>Shailendra Mohite</td>
<td>Senior Engineer, Corporate Planning Dept</td>
<td>Kuwait National Petroleum Company, Kuwait</td>
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<tr>
<td>Samuel Candido</td>
<td>Head of Process Engineering</td>
<td>Petron Corporation, Philippines</td>
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<tr>
<td>Wan Sayuti Wan Hussin</td>
<td>Manager, Aromatics Operation Aromatics Production Department</td>
<td>Petronas, Malaysia</td>
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<tr>
<td>Ahmad Tarmizi</td>
<td>Head - Business Planning &amp; Services</td>
<td>Petronas, Malaysia</td>
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<tr>
<td>Dr Shahidah Mohd Shariff</td>
<td>GM - Technology Management Dept</td>
<td>Petronas, Malaysia</td>
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<tr>
<td>Khairul Emran</td>
<td>Senior Manager - Technical Service Dept</td>
<td>Petronas, Malaysia</td>
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<tr>
<td>Phan Minh Quoc Binh</td>
<td>Director - R&amp;D Center for Petroleum Processing</td>
<td>PetroVietnam, Vietnam</td>
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<tr>
<td>Tran Vinh Loc</td>
<td>Deputy Director - R&amp;D Center for Petroleum Processing</td>
<td>PetroVietnam, Vietnam</td>
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<td>Nguyen Van Tu</td>
<td>Petroleum Processing Division</td>
<td>PetroVietnam, Vietnam</td>
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<td>Helmilus Moesa</td>
<td>Technology General Manager</td>
<td>PT Chandra Asri Petrochemical, Indonesia</td>
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<td>Steven A. McMurray</td>
<td>Senior Technical Advisor</td>
<td>PTT Global Chemical, Thailand</td>
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<tr>
<td>Bhawana Suphavilai</td>
<td>President</td>
<td>PTTES, Thailand</td>
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<td>Werawat Permsantithum</td>
<td>Principal Engineer</td>
<td>PTTES, Thailand</td>
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<tr>
<td>Jay Raj</td>
<td>Specialist Engineer - Reliability &amp; Maintenance Engineering Support Division</td>
<td>Qatar Gas, Qatar</td>
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<tr>
<td>P N Selvaguru</td>
<td>Principal Control Engineer</td>
<td>Singapore Refining Company, Singapore</td>
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<tr>
<td>Tze Jun Lin</td>
<td>Senior Engineer</td>
<td>Singapore Refining Company, Singapore</td>
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<td>Joel Chow</td>
<td>Downstream Consulting</td>
<td>Wood Mackenzie, Singapore</td>
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<tr>
<td>Matt Spalding</td>
<td>Business Unit General Manager – Hydrocarbons &amp; Chemicals</td>
<td>WorleyParsons, Singapore</td>
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DAY ONE: 30 OCTOBER 2013, WEDNESDAY

09:00 Welcome from the Downstream Asia team
Introduction from the Chair

09:10 The global landscape for refining and petrochemicals: 2020 Vision
- Adjusting to changing global refining and petrochemical markets: what are the main trends leading towards 2020?
- A global outlook of M&A activities for oil & gas downstream sector: how is the industry challenged to stay competitive?
- Examining the changing roles of IOC, NOC and other key players in the value chain
- How can you benefit from the growing activities in emerging economies?
Keynote speaker to be confirmed*

09:30 Exports or imports – the future of Asian refining
- What is the future for Asian refining?
- Will the region be short of refining capacity or will products be in over-supply?
- Can countries with high price subsidies continue to absorb both the fiscal burden of the subsidies and the costs of supplying the market?
Stuart Traver, Principal – Downstream and Strategy, Gaffney-Cline & Associates, Singapore

09:50 Managing risks and delivering growth in the downstream chemicals, petrochemicals & fertilizer industry
- The global perspectives for Asian investors and partnerships
- Meeting the sustainability challenges
- How the downstream industry can manage global risks and continue to deliver growth and profitability?
Anil Chandramani, Chief Investment Officer and Global Sector Head, Chemicals and Fertilizers, International Finance Corporation, USA

10:10 Innovation driving petrochemical sustainability
Hu Wei, Senior Vice President, Borouge, Singapore

10:30 Networking Break
Visiting Exhibition Floor / Technology Showcase

11:15 Developing winning strategies for competitive refining performance in Asia
- Outlining major market challenges that the refining companies are faced with
- Developing effective strategies from different levels and strive for operational excellence
- Maximising margins internally and externally to stay competitive
- A case study for achieving competitive refining performance
Speaker to be confirmed*

11:35 An update of shale oil and gas: How is it impacting the downstream sectors?
- Forecast, growth and production of shale gas in the United States
- Can US become a major global low cost provider of energy?
- What will be the impact of the shale gas revolution on fuel and energy prices?
- What is the impact on Asia?
Chris Faulkner, President and Chief Executive Officer, Breitling Energy, USA

11:55 Design for reliability approaches for large scale capital projects in refining and petrochemical industries
Kaizad Sunavala, Advisor, Global Refining – Design for Reliability, Chevron, USA

12:15 Networking Lunch

TRACK 1: Addressing Pressing Challenges for Refineries
Panel Discussion: Enhancing refining economics and profitability
- Improving refining margins with a strategic view on the market and the refinery’s competitiveness
- An economics analysis comparing greenfield vs. revamping projects
- Exercising debottlenecking projects to increase refinery’s capacity
- Squeezing value with state-of-the-art facility and equipment
P N Selvaguru, Principal Control Engineer, Singapore Refining Company
Other refining experts are invited to join this discussion

TRACK 2: Addressing Pressing Challenges for Petrochemicals
Patterns of value creation in the global chemical industry: The past decade and hypotheses going forward
- Regional value creation patterns: Growth and profitability
- Petrochemicals vs. other sectors: Will Petrochemicals remain the frontrunner
- Value creation through M&A in Chemicals and Petrochemicals
Udo Jung, Senior Partner and Managing Director, Global Leader Petrochemical Sector, The Boston Consulting Group, Germany
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<td><strong>TRACK 1: Addressing Pressing Challenges for Refineries</strong></td>
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<td></td>
<td>Improved furnace optimization in Naphtha Steam Cracker units for Olefins production using real-time process FT-NIR characterisation of Unit feed streams</td>
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<td></td>
<td>• Overview of process optimization requirements and objectives in naphtha steam cracking for olefins production</td>
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<td>• Review of process FT-NIR analyser technology and its application to naphtha feed characterization</td>
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<td>• Summary of process optimization benefits and an estimate of Return on Investment</td>
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<td><strong>Dr. Michael B. Simpson</strong>, Industry Manager- Refining &amp; Petrochemicals, ABB Analytical Measurements, Quebec, Canada</td>
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<tr>
<td>14:50</td>
<td><strong>The pros and cons of Lump Sum EPC versus EPCM Contracting</strong></td>
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<td>• Outlining the pros and cons of LS EPC versus EPCM, with reference to the industry history</td>
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<td>• Examining fundamental factors that underpin successful project delivery</td>
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<td>• How to set up sound foundations in project execution excellence, focused around the commercial scenario</td>
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<td><strong>Graham Hill</strong>, Senior Vice-President, Hydrocarbons – Asia-Pacific, WorleyParsons</td>
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<td>15:15</td>
<td><strong>Networking Break</strong></td>
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<td>Visiting Exhibition Floor / Technology Showcase</td>
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<td>16:00</td>
<td><strong>How current market fundamentals impact storage capacity</strong></td>
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<td>• Learning how recent changes in the refining landscape affect storage demand</td>
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<td>• Current capacity and future storage requirements</td>
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<td>• Future of storage demand and rates in Asia</td>
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<td><strong>Tan Wooi Leong</strong>, Vice President (Oil &amp; Gas), Jurong Consultants, Singapore</td>
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<tr>
<td>16:25</td>
<td><strong>Improving refineries profitability with Compact Heat Exchangers: A CDU revamping project case study from SPFRC Thailand</strong></td>
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<td>• Examining the need to increase efficiency; what are the key drivers</td>
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<td>• How does compact heat exchangers (CHE) play an important role with energy saving and productivity</td>
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<td>• Tackling installation and maintenance challenges</td>
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<td><strong>Viktor Terbrant</strong>, Regional Business Manager, Refinery and Petrochemical, Alfa Laval</td>
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<td>16:50</td>
<td><strong>Key success factors for Chloride removal in hydrocarbon processing</strong></td>
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<td>• Understanding potential damages chloride causes</td>
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<td>• Identifying the key areas that need to be focused for chloride removal</td>
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<td>• History of chloride removal materials</td>
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<td>• How to calculate the value of adsorbent</td>
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<td><strong>Tetsuya Wada</strong>, Director of Fuel Upgrading, APAC, Clariant Catalysts K.K, Japan</td>
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<td>Senior Executive, JX Nippon Oil &amp; Energy Corporation</td>
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<td>17:15</td>
<td><strong>Close of Day One and Drinks Reception</strong></td>
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<td>14:25</td>
<td><strong>TRACK 2: Addressing Pressing Challenges for Petro-chemicals</strong></td>
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<td>An overview of Pakistan chlor-vinyl market and growth potential</td>
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<td>• An introduction of Pakistan’s main economic indicators</td>
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<td>• Pakistan PVC industry analysis: Demand supply, application wise market size, scrap issue</td>
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<td>• Pakistan chlor-alkali &amp; chlorine derivatives market and their growth potential</td>
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<td>• Outlining upstream and downstream project opportunities in Pakistan</td>
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<td><strong>Syed Khalid Siraj Subhani</strong>, President &amp; CEO, Engro Polymer &amp; Chemicals, Pakistan</td>
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<tr>
<td>14:50</td>
<td>Why your new project should incorporate sustainable design principles</td>
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<td>• What do we mean by sustainable design – and what are the benefits</td>
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<td>• Management structures supporting inclusive whole of life considerations</td>
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<td></td>
<td>• Examples of sustainably designed chemical products – analysis of outcomes</td>
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<td></td>
<td><strong>Dr. Wilaiporn Chetanachan</strong>, Director of Corporate Technology Office, SCG, Thailand</td>
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<td>16:00</td>
<td><strong>Repercussions of the US shale gas story and feed stock supply outlook</strong></td>
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<td>• Implications of the US shale boom on the regional competitiveness</td>
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<td>• Why shale oil and shale gas paths will diverge in the future</td>
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<td><strong>Richard Gorry</strong>, Managing Director, JBC Asia, Singapore</td>
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<tr>
<td>16:25</td>
<td><strong>Ethyl Butyrate (EB): A better alternative than Bioethanol?</strong></td>
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<td></td>
<td>• An overview of the market drivers for biofuels</td>
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<td>• Ethyl Butyrate as a promising alternative bioalcohol fuel</td>
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<td>• Analysing the properties and Performance</td>
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<td>• A comparison with Bioethanol and Gasoline</td>
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<td><strong>Duckhan Kim</strong>, Fuels Lab Leader – Energy R&amp;D Center, SK Energy &amp; Innovation, South Korea</td>
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<tr>
<td>16:50</td>
<td><strong>Closing panel discussion: Aligning petrochemical business strategy with the next generation feed stocks, facilities and technologies</strong></td>
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<td>• What can the industry learn from volatile feedstock prices and product prices?</td>
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<td>• Discussing the options for the next generation feedstocks</td>
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<td>• What is required for the petrochemical facilities and technologies to accommodate flexibility?</td>
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<td>• What challenges does the future hold for Asia’s petrochemical companies?</td>
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<td><strong>Key stakeholders are invited to moderate and debate in this session</strong></td>
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DAY TWO: 31 OCTOBER 2013, THURSDAY

09:00 | Introduction from the Chair

09:10 | Keynote: Building a favourable ecosystem in Singapore's downstream industry
- An update of Asia's downstream market sector
- Highlight on the development in Singapore
Simon Li, Vice President, Singapore Manufacturing Federation (SMF), Hon Chairman, Energy & Chemicals Industry Grouping, SMF, CEO, FeosoOil Singapore

09:30 | Keynote: Growth and outlook of Indonesia's downstream economy
- Plans to build local refineries to meet domestic demand
- Policies to encourage energy partnerships and cooperation
- Investment opportunities in Indonesia
Edy Hermantoro, Director General of Oil and Gas, Energy and Mineral Resources Ministry, Indonesia

09:50 | Regulations of fuel oil and distribution in Indonesia
- Indonesia's national energy policy and fuel development
- A roadmap for biofuel development
- Understanding regulations for fuel transportation
Ir Saryono Hadiwidjoyo, Committee, BPH Migas, Oil and Gas Downstream Regulatory Agency, Indonesia

10:10 | Foreign investment in refinery and petrochemical sector in Vietnam: with an update on the Nghi Son Refinery & Petrochemical (NSRP) facility
- Outlining efforts towards building the first private sector refinery and petrochemical complex in Vietnam
- How to select partners and manage risks
- Constructing and operating a greenfield petrochemical complex producing petrochemicals such as benzene, paraxylene and polypropylene
Dr. Nguyen Van Tu, Specialist, Petroleum Processing Division, Petrovietnam, Vietnam

10:30 | Networking Break
Visiting Exhibition Floor / Technology Showcase

11:15 | Panel Discussion: Financiers' perspectives towards downstream projects
- Viewing the market risks and returns
- Current margins for equivalent project finance risk
- Examining the state of liquidity in current market
- How refineries and petrochemical projects can find favours with financier
Panellists:
Shiv Sivarajah, Vice President, ING, Singapore
William Hsu, Managing Partner, Sustainergy Capital, Hong Kong
Bashar Jazmati, Director, Natural Resources Group, ANZ, Singapore

11:45 | Forging refinery-petrochemicals integration: What are the key challenges & obstacles
- Successful integration opportunities implemented in the Middle East
- Major enabling and technological innovations
- Case study of successful integration projects
- What are Kuwait's future integration opportunities?
Shailendra Mohite, Senior Engineer-Corporate Planning, Kuwait National Petroleum Company, Kuwait

12:05 | Refinery Integration with Petrochemicals
- Examining pros and cons of integration
- What are the challenges and opportunities?
- Successful case studies in the region
Joel Chow, Managing Consultant, Downstream Oil, Asia Pacific, Wood Mackenzie, Singapore

12:25 | Networking Lunch
DAY TWO: 31 OCTOBER 2013, THURSDAY

TRACK 1: Process Technologies

14:10 How confident are you that your major accident risks are under control?
- Managing and balancing a range of business issues from business continuity, competitiveness, sustainability to innovation
- Using established good management practices to manage risks
- Establishing a competent operating team to optimise control of your plant, people and processes so as to benefit the bottom line
- Examining the key leadership tasks needed to effectively manage major accident hazards and how these can lead to better business performance

Paul Bruffell, Senior Consultant, Process Safety, ABB Consulting, Singapore

14:35 Effects of feed quality on residue hydrotreating and RFCC operation
- Effectively enhancing RFCC unit performance
- Benefits of deep hydrotreating of the RFCC feed
- Examining residue hydrotreating severity optimisation

Saleh Daryabari, Senior Process Engineer of RCD & RFCC, Imam Khomeini Oil Refining Company of Shazand, Iran

15:00 Solvent Deasphalting: The key to unlocking additional profits when processing residues
- How does residue conversion scheme impact a refinery’s margin and profitability
- An overview of different options for residue upgrading
- Optimising residue conversion schemes with Solvent Deasphalting

Steve Beeston, Vice President - Technology, Foster Wheeler USA Corporation

15:25 Networking Break
Visiting Exhibition Floor / Technology Showcase

16:10 Case Study: Highlights of FCC process in SINOPEC
- Increase light olefins production with heavy feedstock
- Improve gasoline yield and qualities with lower content of olefin, benzene and high octane number
- Economically reduce the sulphur content of gasoline to less than 10 ppm with minimal octane loss and minimal hydrogen consumption

Yang Lijing, Regional Representative - Technology and Marketing, Sinopec Tech, Hong Kong

16:35 Applying good quality process control and automation in order to realise change and improvements
- Viewing process control as fundamental to achieving operability, quality, reliability, safety, sustainability and viability
- Applying additional instrumentation and innovative utilisation of control and automation to maximise cost effectiveness
- Reliability improvements and end of life equipment issues

Suppalerk Suppawatin, Petroleum Process Control Manager, PTT Global Chemicals, Thailand
Kamol Kosawiboonphol, Senior Consultant - Advanced Process Control & Alarm Management, PTT Energy Solutions, Thailand

TRACK 2: Plant Optimisation & Operational Excellence

14:10 Managing reliability from inception to obsolescence in hydrocarbon industries
- How reliability impacts your bottom line
- Analysing asset life cycle and reliability challenges
- Evaluating reliability processes, tools and KPIs

Jay Raj, Specialist Engineer, Reliability & Maintenance Engineering Support Division, Qatar Gas

Improving energy efficiency in the refinery: An S-Oil case study

H.B. Kim, Vice President, Head of Process Engineering Division, S-Oil Corporation, South Korea

Panel discussion: Achieving world class operational excellence in Asia’s downstream sector
- Driving continuous improvement from different levels
- Outlining key toolkits along the journey
- Achieving energy efficiency and carbon footprint reduction: A key element for operational excellence for downstream sector
- Improving efficiency of shutdown performance

Senior Executive, DuPont Sustainable Solutions
Other key experts will be invited to moderate and debate in the session

16:10 Maintenance excellence for long term reliability and integrity
- How to conduct and facilitate a good risk assessment strategy
- How to ensure that cost and schedule are as per planning
- What constitutes a good mechanical integrity plan for maintenance of equipment as part of a continual improvement strategy

Speaker to be confirmed*

Bridging the gap between safety protection and condition monitoring
- Best in class maintenance strategies and condition monitoring of machines
- Examining the gap between protection and condition monitoring
- Putting in place preventive maintenance

Ahmed Abdelhakam Noureldin, Instrumentation and Automatic Control Department Manager, Cairo Oil Refinery Company, Egypt
DAY TWO: 31 OCTOBER 2013, THURSDAY

TRACK 1: Process Technologies

17:00
Behavioral safety for process safety management
- Identifying the pattern of behavioral safety for proper corrective actions
- Managing process hazards in petrochemical industry
- Implementing behavioral safety programs to identify unsafe acts and unsafe conditions

Fam Chew Pin, Senior Manager, Complex Safety & Environmental Affairs, Lotte Chemical Titan

17:25
Concluding Remarks and Close of Downstream Asia 2013

SITE VISIT:
November 1, Friday (8:00am – 2:00pm)

The Green Campus Site Tour - Turning energy efficiency into a source of competitive advantage

The McKinsey Capability Center Green Campus is the first of McKinsey’s model factories in Asia, and is also the first process model factory in McKinsey.

The Green Campus offers companies a hands-on opportunity to drive an end-to-end energy transformation. Located within the Chemical Process Technology Center facility operated by Petrofac on Jurong Island, the Green Campus model factory will be used to train executives and front line operations managers across a range of core operations issues. Trainees from different industry backgrounds can build Green Operations Transformation capabilities in a live mini-refinery working environment. The Green Campus offers companies a new tool-kit for responding to the growing pressure to reduce costs and minimize their energy footprint.

Participants of the tour will be given a glimpse of energy efficient processes across six live learning stations—from a water cooling system to an operational furnace.

ONLY 25 places available!
Book early to avoid disappointment.

Site Tour Agenda
8:00am | Assemble at the MBS
8:15am | Bus Departure
9:15am | Arriving at the Green Campus and start the tour
12:15pm | Lunch
12:45pm | Bus departure from the Green Campus
2:00pm | Returning to the MBS

Site tour facilitator:
Raja Pillai
Head, McKinsey Green Campus

WORKSHOP:
Day One 30 October, Wednesday 16:00 – 17:00 (1 hour)

Benchmarking Process Safety Leadership (Facilitated by ABB)

The OECD 2012 guidance on “Corporate Governance for process safety” states that serious accidents causing large scale loss of life or extensive environmental damage can have a significant commercial impact on a company. The guide provides simple measures to allow Senior Leaders of major hazard companies who have the authority to influence the culture of the organisation, to self-assess their commitment to process safety. This is important as analysis of past incidents reveals that inadequate leadership and poor organisational culture have been recurrent features.

This workshop will introduce the topic of Process Safety Leadership, and provide an opportunity for self assessment against the OECD check-list followed by a group discussion of the findings.

- Do you know what the major accident risks are for your organisation?
- Do you know what your main vulnerabilities are?
- What are you doing about them?
- How concerned are you about the level of risk?
- How confident are you that all the safety systems are performing as they should?
- Do you seek out the ‘bad news’, as well as the good?
- If there is an incident, who do you blame? Others, or yourself?
- Are you doing all you can to prevent a major accident?

Only 30 places available
Book early to secure yours!

Your workshop leader:
Jonathan Cook
Senior Consultant Business Development, ABB Consulting
ABOUT THE EXHIBITION

WHO SHOULD EXHIBIT?

- Chemicals & Petrochemicals
- Specialty Products
- Catalysts
- Traders
- EPCs
- Systems & Information Technology
- Consultants
- Automation
- Classification & Verification
- Rotating Equipment
- General Solutions

SUBSIDISED RATES FOR SINGAPORE COMPANIES!

With the support of the Singapore Manufacturers’ Federation (SMF), the exhibition will feature a Singapore Pavilion and Singapore companies will be able to exhibit at subsidised rates of **up to 50%**!

To check eligibility or book a stand, contact Shantal at +65 6590 3970 or email info@downstream-asia.com now.

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Showcasing new and innovative products and services, the Downstream Asia exhibition is the region’s largest, providing a major networking and learning platform for key representatives from regional and international oil & gas producers, operators, EPCs and vendors.

**This is the perfect opportunity to:**

- **Network** with 500+ international participants
- **Uncover** new business opportunities
- **Make** new business contacts
- **Examine products and services** of 30+ exhibitors first hand, make brand-to-brand comparisons and build your shortlist- saving you months of desk research and individual meetings
- **Learn** about the latest technologies and products by attending the FREE Technology Showcases on the exhibition floor, where leading vendors will be conducting insightful 10-minute presentations showcasing the latest and most innovative products and services.

REGISTER FOR YOUR FREE VISITOR PASS* NOW BY EMAILING US AT INFO@DOWNSTREAM-ASIA.COM

*An exhibition visitor pass (worth $250) gives you free access to the exhibition floor for 2 days, including access to the technology showcase areas and coffee break areas.

Please note visitors do not gain access to the conference sessions.

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- Invensys Process Systems
- Newton’s
- Piller SEA
- Singapore Manufacturing Association
- US Metals/ CWV Engineering
- Wonder Engineering Technologies
- Worley Parsons
- Z&J Technologies GmbH

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Only 7 stands available. Reserve your stand now!

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ABB Consulting provides technical and engineering services to help companies in the global process industries achieve operational excellence. We offer expertise in: inspection, integrity management, operations improvement, process safety, project services, site and asset closure, technical engineering, technical software & technical training and competency. We identify and implement pragmatic solutions based on technical excellence and industry expertise which
• Reduce risk
• Optimise costs
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ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact.

As a leading supplier to the oil and gas industry, ABB provides the measurement technology needed to operate downstream refining and petrochemical plants safely, productively and profitably. With proven high accuracy and reliability, ABB’s measurement products combine high performance with the lowest cost of ownership, giving customers predictable and safe operation. www.abb.com/measurement

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The company’s equipment, systems and services are dedicated to assisting customers in optimizing the performance of their processes. The solutions help them to heat, cool, separate and transport products in industries that produce food and beverages, chemicals and petrochemicals, pharmaceuticals, starch, sugar and ethanol.

Alfa Laval’s products are also used in power plants, aboard ships, in the mechanical engineering industry, in the mining industry and for wastewater treatment, as well as for comfort climate and refrigeration applications.

Clariant Catalysts business unit is a leading global catalyst supplier with a long history of innovation and expertise in catalysts. With the 2011 acquisition of Süd-Chemie, Clariant becomes one of the leading catalyst partners for the petrochemical industry with high performance solutions for production of the main petrochemical building blocks such as ethylene, propylene, butadiene, and styrene. These catalysts deliver the excellent performance required to succeed in this highly competitive industry.
Use LIQUIDYNE at the heart of a wide range of pumps that process water or water-based fluids. LIQUIDYNE seals can be fitted to: cooling water pumps, dredge pumps, booster pumps, slurry pumps and many other applications. The LIQUIDYNE is successfully installed at: Akzo Nobel, Dow Chemical, DSM, SABIC, Shell and other companies. Our team of experts are always ready to design a Modular Made to Measure solution for your application. Given the specific sealing conditions, the LIQUIDYNE can be built-up out of bronze, stainless or duplex steel parts. Various LIQUIDYNE types are ATEX approved.

IHC Sealing Solutions

Our Software business is one of the world’s leading developers and suppliers of industrial software with strong positions in visualisation and supervisory control, process design, simulations and optimisation, real-time operations management and asset management.

Our portfolio includes:
- Wonderware – the world’s leading visualisation and supervisory control and real-time production
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Worley Parsons

Worley Parsons is a leading provider of professional services to the resources & energy sectors and complex process industries. Across our comprehensive global network, our four customer sector groups; Hydrocarbons, Infrastructure & Environment, Power, Metals, Minerals & Chemicals, use their extensive expertise to deliver small studies through to mega-projects. Our services cover the full asset spectrum both in size and life cycle – from the creation of new assets to services that sustain and enhance operating assets.

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Z&J is a well-established company since 1877 with multiple skills in valve technologies. Its core competence lies in engineering and manufacturing of valves for refining and petrochemical processes such as delayed coking, FCC, ethylene and propane dehydrogenation units. Z&J contributed significant innovations to the industry such as the double disc through conduit type gate valve design. Z&J has been working closely with refiners, technology licensors and operators to develop advanced technologies to lower the overall, long term operating costs and increase operational comfort. Z&J’s mission: To be your preferred cost-effective technology solution provider.
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Cancellations made within 48 hours of receipt of the completed registration form will be eligible for a full refund. Cancellations received in writing more than two months prior to the start of the event will be refunded less a 50% cancellation fee. Cancellations received in writing less than two months before the start date of the event will receive no refund and registrants will be liable for payment of 100% of the invoiced amount. No fees will be applied for this.

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- Early Bird Rate (Expires 2 Sep 2013) SGD 2,690*  
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**6th ANNUAL**

**DOWNSTREAM PETROCHEMICAL ASIA**

**30 – 31 October 2013**

**Sands Expo & Convention Centre, Singapore**

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