

SCIC Sustainability Conference 2023

“Energy Transition Towards a Low Carbon Future”

24 Oct 2023

*Ballroom Foyer 2, Lower Lobby
The Fullerton Hotel Singapore*

Champion Companies:

ADVIRIO
Partners for progress

BASF
We create chemistry

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KBR

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Introduction

Creating a sustainable energy system that can drive a low carbon future is a crucial strategy in addressing global climate change issues and mitigating its impacts. It involves not only the exploration and application of renewable and alternative energy sources, the focus on energy conservation and efficiency is also a key element in the energy transition phase. It drives lower energy consumption and associated carbon emissions without compromising productivity or quality of life.

The process industry is known for its high energy consumption, which makes it an energy-intensive sector. Nevertheless, the industry has a growing emphasis on sustainability and is committed in actively working towards reducing its carbon emissions.

Achieving a low-carbon future through the transition to a sustainable energy system is a gradual process that entails substantial investments in infrastructure and innovative technology development. To achieve this goal, governments, businesses, and individuals all have a role to play and to work collaboratively towards building a more resilient and low-carbon future that benefits both the environment and our economy.

Synopsis

The SCIC Conference 2023 is a highly anticipated event that has been themed around the key topic on "*Energy Transition Towards a Low Carbon Future*".

Sharing a common goal of achieving a sustainable energy system for our future, the conference aims to provide an opportunity for delegates to engage in discussions and insights on the technological advancements, feasible approaches, and policy developments in the field of energy transition. The conference is expected to feature several keynote speakers in the field of energy, sustainability, and climate change who will share their valuable perspectives on creating a sustainable future, highlighting the challenges that need to be addressed and discussing potential solutions.

- ✓ What are the main challenges and barriers to transitioning to a sustainable energy system, and how can we overcome them?
- ✓ What are some of the technologies or strategies for achieving a low carbon energy system?
- ✓ What role do governments, businesses, and individuals play in driving the transition to a sustainable energy system, and how can we create more effective partnerships and collaborations to accelerate progress?
- ✓ What are some of the potential risks and unintended consequences of transitioning to a low carbon energy system, and how can we mitigate them?

Join us in the SCIC Sustainability Conference 2023. It is poised to be an enriching experience for delegates in attendance, inspiring all to take positive action towards a sustainable future.

Message from SCIC Chairman



It gives me great pleasure to welcome all to the SCIC Sustainability conference on “*Energy Transition Towards a Low Carbon Future*”

Energy is a vital component of modern society, powering homes, industries, and transportation. However, the world is facing an unprecedented challenge from climate change issues. The transition to a low carbon future is essential to address this challenge and to ensure a sustainable and livable planet for future generations.

Bringing together diverse range of experts, professionals and thought leaders, this conference not only serves as a platform of knowledge exchange on innovative solutions and approaches to address the challenges of energy transition, it also promotes an opportunity for us to collectively commit and collaborate to taking action towards a sustainable and resilient future

The transition to a low carbon future is imperative. It creates new opportunities for innovation, job creation and economic growth to enhance the overall well-being of society.

I encourage all to engage in productive discussions, share your ideas and to take away valuable insights and lessons that can inform your future actions.

I wish you all a fruitful conference.

Henri Nejade
Chairman
Singapore Chemical Industry Council

Programme Highlights

8.30 am	Start of Registration
8.55 am	Administrative and Safety Briefing
9.00 am	<p>Opening Remarks</p> <p>Mr Henri Nejade Chairman Singapore Chemical Industry Council (SCIC)</p>
Transition of Energy Landscape with Exploration of Renewable and Alternative Energy Sources	
9.05 am	<p>Transforming Singapore into a Sustainable Global Energy & Chemicals Hub</p> <p>Mr Kwang Koon Way Vice President, Environmental Sustainability Singapore Economic Development Board</p>
9.25 am	<p>Acting for a sustainable future</p> <p><i>Air Liquide is affirming its role in the decarbonization of industry and the dawn of a low-carbon society in which today hydrogen is playing a decisive role. It is committed to decarbonizing its own operations while helping customers to do the same. This presentation will share an overview of sustainability pathways and levers to help decarbonize the industry.</i></p> <p>Mr Zhang Xi Cluster VP, South East Asia & Managing Director of Air Liquide Singapore Pte Ltd SCIC Board Member</p>
9.45 am	<p>Hydrogen for Singapore Industrial Sectors with reference to SG National Hydrogen Strategy: Outlook and Developments</p> <p><i>Covering where hydrogen can potentially be used in different sectors and why hydrogen over its other competitors with reference to the Singapore National Hydrogen Strategy as well as the outlook for hydrogen in the long term and recent developments in the space.</i></p> <p>Yong Rui Yuan Treasurer, Head of system development Hydrogen and Fuel Cell Association of Singapore, SunGreenH2 Pte Ltd</p>
10.15 am	Networking Tea-Break Session

10.30 am	<p>Hydrogen for Land Mobility</p> <p><i>An insight on hydrogen supply chain distribution and operation for land mobility application, an overview of HRS – hydrogen refuelling station technical reference that is being developed and the roles of AIGA in the hydrogen industry, promoting safe transportation.</i></p> <p>Nicholas Yong Representation of AIGA – Asia Industrial Gases Association Former AIGA Transport Workgroup B Chairperson</p>
10.50 am	<p>Methanol: Clean Market Access for Hydrogen</p> <p><i>Methanol is at once an essential petrochemical building block and a tool that enables the world's transition to a low carbon future. This presentation will discuss current and future methanol outlooks, including emerging global markets as in marine fuel, road transport fuel, and low carbon building block. These markets will require investment in processes whereby methanol is a sustainable carrier of renewable hydrogen as well as a scavenger of CO2. The presentation will draw from MMSA's vast experience in advising clients on the topic.</i></p> <p>Mark Berggren Managing Director Methanol Market Services Asia</p>
11.10 am	<p>Ammonia Cracking: A pathway to sustainable energy</p> <p><i>Ammonia cracking technology completes the roadmap from renewable energy to sustainable hydrogen delivery using ammonia as energy carrier. This presentation outlines advantages of the ammonia value chain today (cost, efficiency, carbon intensity, technology readiness) and provides an overview of KBR ammonia cracking technology, (scale, performance, safety & reliability).</i></p> <p>Elena Stylianou Head of Ammonia Cracking Technology KBR</p>
11.30 pm	<p>Panel Discussion</p> <p>Session Moderator: Mr Zhang Xi, Cluster VP, South East Asia & Managing Director of Air Liquide Singapore Pte Ltd, SCIC Board Member</p>
12.00 pm	Lunch break
Energy Conservation & Efficiency	
1.30 pm	<p>Better Plants Programme</p> <p><i>A successful public-private partnership by US DOE to help improve energy efficiency in the industrial sector to reduce carbon emissions.</i></p>

	<p><i>What it takes for Singapore to emulate a similar programme in-terms of effort and resources and what are some benefits for both the Government and Industry?</i></p> <p>Robert Bruce Lung Senior Technical Advisor US Department of Energy (DOE)</p>
1.50 pm	<p>Leveraging the ISO 50001 Energy Management System framework to improve energy performance</p> <p><i>An overview of ISO 50001 Energy Management Systems (EnMS), its key benefits and challenges faced, coupled with the application of ISO 2.0 Methodology to measure economic benefits to achieving energy efficiency.</i></p> <p>Dr Yew Ming Hock Representation of SDO@SCIC Consultant</p>
2.10 pm	Networking Tea-Break Session
Leadership Thoughts & Sharing	
2.30 pm	<p>Low-Carbon Hydrogen Pathways</p> <p><i>Overview of low-carbon hydrogen production and supply pathways to support Singapore's decarbonization agenda and enable the adoption across different sectors as low-carbon fuel or feedstock.</i></p> <p>Mr Derek Lum Conceptual Engineering Manager, Hydrogen APAC Linde Gas</p>
2.50 pm	<p>Journey to Net Zero 2050</p> <p><i>BASF believes that chemistry can play a key role in providing solutions addressing the sustainability challenges. Improving energy efficiency, increasing the use of renewable energies, deploying new technologies, collaborating with partners and enabling customers to lower CO2 emissions through provision of sustainable solutions are key aspects of BASF's strategy towards achieving climate neutrality in 2050. Sharing on leadership thoughts and views on BASF's journey on creating a more sustainable future through leveraging on chemistry, innovation and collaboration.</i></p> <p>Vimala Arumugam Managing Director BASF South East Asia Pte Ltd & BASF (Malaysia) Sdn Bhd</p>
3.10 pm	<p>Sustainability in Energy Efficiency Best Practices Performance</p> <p><i>Like many other similar industries, PCS plays a key role in the production of essential chemicals that helps in improving the quality of life. These vital chemicals are key raw materials, or building blocks, that support industries</i></p>

	<p><i>in making products that we use every day. As a producer of high-quality essential chemicals, PCS recognises its responsibility to maintain and improve its energy efficiency performance, using an existing effective structured energy management system. This is one of the sustainable ways that PCS reduces its carbon footprint.</i></p> <p><i>This presentation will share various energy efficiency improvement initiatives and best practices, covering new technologies and retrofits of existing plant facilities that resulted in the reduction of carbon emission and its sustenance of high energy efficiency. PCS is committed to continue to reduce its carbon footprint and become a low-carbon essential chemicals producer.</i></p> <p>Tng Shun Li Process Engineer PCS Pte. Ltd</p>
3.30 pm	<p>Leading the way in renewables towards a sustainable future</p> <p><i>Neste creates solutions to combat climate change and accelerate a shift to a circular economy. As the world's leading producer of sustainable aviation fuel and renewable diesel, we refine waste, residues and innovative raw materials into renewable fuels and sustainable feedstock for plastics and other materials. In this session, we will share more about our recent refinery expansion in Singapore, and how we can collectively work together to reduce greenhouse gas emissions with our renewable and circular solutions.</i></p> <p>Kenneth Lim Site Director Neste Singapore</p>
3.50 pm	<p>Panel Discussion Session Moderator: Mr Akbar Md Thayoob, President, Malaysian Petrochemicals Association</p>
4.10 pm	<p>End of Conference</p>

Note: Above is a draft programme and SCIC reserves the right to amend the programme without prior notice.

Conference Registration Fee (Inclusive of lunch and 2 tea-breaks):

- SCIC members fees: \$400 per pax
- Non-members fees: \$550 per pax

*The above rates are subjected to the prevailing 8% Goods and Services Tax (GST)
Confirmation with details will be sent upon receiving of payment.*

Champion / Sponsorship Opportunity

Interested members may contact SCIC via secretariat1@scic.sg

How to Register

- For Registration, please click the following:
<https://www.scic.sg/index.php/en/component/rseventspro/event/408-scic-sustainability-conference-2023-energy-transition-towards-a-low-carbon-future?Itemid=220>

SDU points

The SCIC Sustainability Conference will be awarded a total of **8 SDU points** under the FSM CPD program.

For WSHO that require the points, you will need to provide the following via email to secretariat1@scic.sg upon receiving the e-cert from SCIC.

Name of WSHO (as in NRIC):

NRIC / Fin no. (SXXXX123A):

WSHO Number:

SDU certificate number:

Contact number:

Contact person: