

## ASEAN Sustainable Energy Week (ASEW)

### The 20th Renewable Energy Asia Conference 2024

#### "Innovating ASEAN Towards a Net Zero and Climate-Resilient Future"

Wednesday, 3 July 2024

Queen Sirikit National Convention Center (QSNCC), Bangkok

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## INTRODUCTION

According to the US National Oceanic and Atmospheric Administration (NOAA), 2023 marked the highest recorded global temperatures, accentuated by a significant decline in Antarctic Sea ice coverage, reaching an unprecedented low level. Projections indicate that these records will be surpassed, and the frequency of extreme weather events will escalate until achieving net zero emissions. Addressing this urgent scenario calls for a dual approach: implementing innovative government policies and technologies to drastically cut emissions and concurrently adopting measures to enhance climate resilience.

ASEAN, identified as one of the world's most susceptible regions to climate change-induced impacts like droughts, floods, typhoons, sea level rise, and heatwaves, is paradoxically one of the fastest-growing areas globally, with a projected energy demand surge of around 70% by 2040. Despite possessing substantial renewable energy potential, navigating the transition away from fossil fuels encounters challenges rooted in political and economic realities.

Obstacles hindering renewable energy deployment in the region are multifaceted. These encompass unfavorable energy policies, regulatory constraints, an investment climate that does not incentivize renewables, inadequacies in market design, apprehensions regarding grid capacities and stability, and a deficiency in institutional and human capacities. Additionally, the absence of cross-border integration in power systems within the region compounds the challenges faced in transitioning to sustainable energy sources. Efforts to overcome these barriers are essential for ASEAN to reconcile its developmental aspirations with the imperative of addressing climate change.

## ABOUT THE CONFERENCE

The Renewable Energy Asia (REA) Conference is an annual event designed to serve as a premier regional forum for the dissemination and exchange of information and ideas on the latest developments in renewable technologies, policies, and markets. The Conference is held as an integral part of ASEAN Sustainable Energy Week (ASEW). REA2024 marks the 20th anniversary of the event, which originated in 2005 through a partnership between the Joint Graduate School of Energy and Environment (JGSEE) at King Mongkut's University of Technology Thonburi (KMUTT) and UBM Asia (now Informa Markets). The theme for the 20th edition is "Innovating ASEAN Towards a Net Zero and Climate-Resilient Future". This conference brings together engineers, practitioners, entrepreneurs, and policymakers from academia, industry, and government across the region, all working at the forefront of climate innovation and action. Our goal is to envision and build a better, more resilient, and sustainable future for ASEAN.

## TOPICS AT A GLANCE

- Hydrogen, Sustainable Aviation Fuels (SAF), Bio-CCS and Bio-CCU
- Clean electricity transition
- Industrial decarbonization
- Decarbonization in transport
- Climate adaptation and mitigation in Agriculture-Forest-land use sector (AFOLU): Implication of Nature-based Solutions (NbS)

## PROGRAM OVERVIEW

Plenary Session (MR110)	Innovating ASEAN Towards a Net Zero and Climate-Resilient Future
Session I (MR 109 AB)	Hydrogen, Sustainable Aviation Fuels (SAF), Bio-CCS and Bio-CCU
Session II (MR 109 CD)	Clean Electricity Transition
Session III (MR 109 H)	Industrial decarbonization
Session IV (MR 109 EF)	Decarbonization in Transport
Session V (MR 107)	Climate adaptation and mitigation in Agriculture-Forest-land use sector (AFOLU): Implication of Nature-based Solutions (NbS)

09.00-09.30

Registration

09.30-10.30

Opening ceremony

10.30 – 12.00

**Plenary Session Innovating ASEAN Towards a Net Zero and Climate-Resilient Future**  
**Room: MR110**

10.30- 11.00

**Thailand's New Power Development Plan 2024: A Step Closer to Net Zero**

by Dr. Onvara Vadhanavisala, Ministry of Energy, Thailand

11.00 – 11.30

**Corporate Decarbonization in Southeast Asia: A Key Driver of Clean Energy Across the Region**

by Dr. Peter du Pont, Co-Founder and Co-CEO, Asia Clean Energy Partners

11.30 – 12.00

**The new EU battery regulation and a discussion on battery 2nd life**

by Dr. Frank Richter, CEO, Greenectra OÜ, Estonia

12.00– 13.30

Lunch

13.30-15.30 Parallel session					
Chairpersons	<b>Session I</b> <b>Room MR 109 AB</b> Prof. Dr. Navadol Laositipojana, JGSEE and Dr. Frank Richter, Greenectra OÜ	<b>Session II</b> <b>Room: MR 109 CD</b> Dr. Atikom Bangviwat & Assoc. Prof. Dr. Bundit Fungtammasan	<b>Session III</b> <b>Room: MR 109 H</b> Assoc. Prof. Dr. Pipat Chaiwiwatworakul & Assoc. Prof. Dr. Nakorn Worasuwanarak	<b>Session IV</b> <b>Room: MR 109 EF</b> Assoc. Prof. Dr. Yossapong Laonual, and Assoc. Prof. Dr. Savitri Garivait	<b>Session V</b> <b>Room: MR 107</b> Assoc. Prof. Dr. Sirintornthep Towprayoon and Assoc. Prof. Dr. Amnat Chidthaisong
13.30-14.00	<b>Will hydrogen make our energy future?</b>  Prof. Dr. Christoph Menke	<b>EGAT's pathways to achieving carbon neutrality by 2050</b>  Ms. Saijai Thatavakorn, Electricity Generating Authority of Thailand (EGAT)	<b>Topic 1</b>  Representative from The Federation of Thai Industries (FTI), Thailand	<b>Topic 1</b>  Dr. Dominika Kalinowska Director Transport Projects Thailand / ASEAN, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	<b>13.30-13.55</b>  <b>Greenhouse gas mitigation in rice sector of Thailand: Current policy, activity, the roles of NbS and future outlook</b>  Dr. Chitnucha Buddhagoon Rice Department
14.00-14.30	<b>Bio-energy Solutions in Thailand: H2 Production from Biogas and Sustainable Aviation Fuel (SAF)</b>  Dr. Visarn Lilavivat, National Energy Technology Center (ENTEC), Thailand	<b>Thailand's Utility Green Tariff (UGT) as an instrument to meet the demand for clean electricity.</b>  by Dr. Chanchai Amornvipas, Director of Department of Energy Innovation & Regulatory Development, Energy Regulatory Commission (ERC), Thailand	<b>Topic 2</b>  Representative from EGAT, Thailand	<b>An innovative way of financing decarbonization in transport: example of the Bangkok E-Bus Programme under the Article 6 of the Paris Agreement</b>  Ms. Vicky Janssens General Manager Southeast Asia, Foundation for Climate Protection and Carbon Offset Klik	<b>13.55-14.20</b>  <b>Roles of AFOLU in achieving Net-Zero.</b>  Prof. Dr. Poonpipope Kasemsap Kasetsart University, Thailand
14.30-15.00	<b>A comparison of hydrogen and Li-ion battery technology</b>	<b>Policy, regulatory and market evolution towards clean electricity transition in Malaysia</b>	<b>Topic 3</b>  Representative from NSTDA, Thailand (Pending)	<b>Topic 3</b>  Prof. Saroch Boonsiripant Professor at Kasetsart	<b>14.20 – 14.45</b>  <b>Rice cultivation in ASEAN countries: Greenhouse gas emission reduction</b>

	Dr. Frank Richter, CEO, Greenectra OÜ, Estonia	by Prof. Ir Dr Nasrudin Abd Rahim, UM Power Energy Dedicated Advanced Centre (UMPEDAC), Universiti Malaya		University and Co-Founder of Haupcar Co. Ltd	<p><b>potentials for carbon credits</b></p> <p>Dr. Rujirat Wongchandaeng International Rice Research Institute (IRRI)</p>
15.00-15.30	<p><b>Bio-CCUS</b></p> <p>Dr. Verawat Champreda</p> <p>The National Center for Genetic Engineering and Biotechnology (BIOTEC), Thailand</p>	<p><b>The role of regional power trade in supporting ASEAN's clean electricity transition.</b></p> <p>Mr. Pitoon Junthip USAID SE Asia Smart Power Program</p>	<p><b>Long term energy deals creates an opportunity for fastest way to decarbonization</b></p> <p>by Ms. Wanida Kajina Manager, Business development, Clean Max, Thailand</p>	<p><b>Topic 4</b></p> <p>Prof. Dr. Srithar Rajoo, Director, Institute for Sustainable Transport, Universiti Teknologi Malaysia (UTM).</p>	<p><b>14.45 – 15.10</b></p> <p><b>The Thai Rice project: the first GCF project to focus solely on transforming rice production systems to sustainability with a focus on circular economy</b></p> <p>Dr. Tobias Breunin, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH</p>
					<p>15.10-15.35</p> <p><b>Application of NbS in water management in local community in Thailand</b></p> <p>Asst. Prof. Dr. Phaothai Sin-ampol, Chiang Mai University</p>