



YOUTH SEMINAR WHAT A CHANGING ARCTIC MEANS FOR SINGAPORE

Saturday, 01 September 2018 12.00 - 1.30 pm (Registration opens at 11.30 am) Singapore Sustainability Academy Skypark Level 6, City Square Mall, 180 Kitchener Road, Singapore 208539



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SYNOPSIS

Organisers

For many in Singapore, the Arctic appears remote, enigmatic and inhospitable with its sweeping tundra, glaciers and ice caps. The Arctic is in fact rich in biodiversity, abundant in natural resources and home to a diversity of people across eight countries. Today, climate change, the growing demand for Arctic resources and the advent of new technologies enabling connectivity and access are increasing the pace of change in this region. These trends are challenges for the Arctic's unique natural and cultural landscapes. However, they can also bring new opportunities for local empowerment and sustainable growth for stakeholders. There will be new opportunities for trade, research, education and social interactions between the Arctic and the wider world. In this context, there is a need to develop the next generation of talent to tackle the grand challenges as well as to capitalise on the opportunities offered with the globalisation of the Arctic.

Singapore is more than 7,000 km away from the Arctic Circle but as the region opens up and integrates deeper with the global economy, it will also impact Singapore in different ways. To raise awareness on the Arctic and to enable our youth to reflect on how these developments would affect them, we are organising a sharing session on changes in the Arctic and why it matters for Singapore. The panellists will cover the following topics:

- How is the Arctic changing and why does it matter to Singapore?
- How do we advance sustainable development in the Arctic?
- What is it like to live and work in the Arctic?
- What are the implications of a changing Arctic for Singapore's global competitiveness?

Minister of State, Ministry of Foreign Affairs & Ministry of Social and Family Development Mr Sam Tan Chin Siong will give closing remarks as the Guest-of-Honour. The changes in the Arctic can be a powerful inspiration for students and early career professionals to think about the future they want to create. Come join the conversation!

Lunch will be provided. Admission is free but registration is required. Register here: https://tinyurl.com/youthseminar-achangingarctic



Supporting Partners

NATIONAL YOUTH ACHIEVEMENT AWARD COUNCIL



PROGRAMME

WELCOME REMARKS Professor Ang Beng Wah Executive Director NUS Energy Studies Institute Introduction to the Global Compact Network Singapore Mr Wilson Ang Executive Director Global Compact Network Singapore Introduction to the Singapore Sustainability Academy Ms Esther An Chief Sustainability Officer City Developments Limited PANEL DISCUSSION with Q&A Chairperson Dr Philip Andrews-Speed
Professor Ang Beng Wah Executive Director NUS Energy Studies Institute Introduction to the Global Compact Network Singapore Mr Wilson Ang Executive Director Global Compact Network Singapore Introduction to the Singapore Sustainability Academy Ms Esther An Chief Sustainability Officer City Developments Limited PANEL DISCUSSION with Q&A Chairperson Dr Philip Andrews-Speed
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Dr Philip Andrews-Speed
Senior Principal Research Fellow
NUS Energy Studies Institute
Panellists
Ms Gail Mosey
National Renewable Energy Laboratory, USA
Arctic Renewable Energy Atlas (AREA) Project Leader, Arctic Council Sustainable
Development Working Group
Mr Johannes Vallivaara
ProAgria Lapland, Finland
Ms Goh Shu Hui Gina
Co-founder and Singapore Representative of the Arctic Youth Network (AYN)
Mr Simon Kuik
Head of Research & Development
Sembcorp Marine
End of Q&A
Closing remarks by GUEST-OF-HONOUR
Minister of State Mr Sam Tan Chin Siong
Ministry of Foreign Affairs & Ministry of Social and Family Development
LUNCH RECEPTION

For more information, please contact:

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ABOUT THE PARTICIPANTS



ANG Beng Wah, PhD is the Executive Director of the Energy Studies Institute, National University of Singapore. He is also Professor of Industrial Systems Engineering and Management at the National University of Singapore. His primary research interests are systems modelling and analysis, and energy economics and policy. He has been very active in energy demand analysis, and has made important contributions to the development of the technique of Index Decomposition Analysis. The decomposition technique he proposed has been widely used by researchers and national and international energy organisations to study factors affecting national energy consumption and carbon emissions, as well as to monitor sectoral and economy-wide energy efficiency trends. Professor Ang is a Co-Editor

of *Energy Economics*, and a member of the editorial boards of several other international energy journals including *Energy Policy* and *Energy*.



Wilson ANG, Executive Director, Global Compact Network Singapore (GCNS). GCNS advances the United Nations Global Compact initiative and its ten principles at the country level, helping companies understand what responsible business means within different national, cultural and language contexts and facilitate capacity building, outreach, learning, thought leadership and partnerships. Over the last 10 years, he has held several appointments with expansive portfolios ranging serving on various national, regional and global boards. He believes the only way to create a better planet for human survivability is for every individual to take responsibility for their own actions by being more conscious about daily

choices in consumption habits. He also hopes to create 10,000 green jobs through working with the people, private and public sectors.

Wilson holds a Masters in Diplomacy from the University of Oxford.



Esther AN, Chief Sustainability Officer, City Developments Limited. A pioneer sustainability practitioner for over 20 years, Esther has been instrumental in building up City Developments Limited's sustainability leadership. Since 1995, she has been spearheading the company's efforts in strategic sustainability integration, reporting, stakeholder engagement and green financing. She kick-started the company's sustainability reporting journey with the publication of its first GRI-checked Sustainability Report in 2008 and has since expanded to the adoption of integrated approach using the International Integrated Reporting Council (IIRC) framework.

CDL issued its maiden green bond in April 2017, which was also the first by a Singapore-listed company. In the same year, CDL became one of the first few Singapore companies to pledge their support to the Task Force for Climate-related Financial Disclosures (TCFD) recommendations. In July 2018, CDL became the first real estate company in Singapore to have its carbon reduction targets assessed and validated by the Science Based Targets Initiative (SBTi), which is fast becoming best practice among top global companies. Esther sits on board several international and local sustainability organisations including the UNEP Finance Initiative Property Working Group; UNEP Sustainable Stock Exchange's Green Finance Advisory Group, World Green Building Council Corporate Advisory Board, GRI Corporate Leadership Group for Integrated Reporting; Asia Pacific Real Estate Association Singapore Chapter Board and Global Compact Network Singapore Management Committee. Founder of the Women4Green Network, Esther is committed to engaging and empowering women to drive sustainability practices at home, at work or at play.



Philip ANDREWS-SPEED, PhD is a Senior Principal Fellow at the Energy Studies Institute, National University of Singapore. He has 35 years in the field of energy and resources, starting his career as a mineral and oil exploration geologist before moving into the field of energy and resource governance. Until 2010 he was Professor of Energy Policy at the University of Dundee and Director of the Centre of Energy, Petroleum and Mineral Law and Policy. His main research interest is the political economy of energy and resource governance, at national, regional and global scales. From 2010 to 2012 he led a major European Union, Framework 7 Programme project "Competition and Collaboration in Access to Oil, Gas and Mineral Resources". He was also Fellow at the Transatlantic Academy of the

German Marshall Fund of the US, he co-authored a report entitled The Global Resource Nexus. The Struggles for Land, Food, Water and Minerals. Although his Asia has been the focus of the last 25 years of his career, his previous interest was in the Arctic when he visited Greenland on four occasions.



Gail MOSEY has worked as a Project Lead and Senior Energy Analyst for 14 years at the National Renewable Energy Laboratory (NREL) which is the United States' primary laboratory for renewable energy and energy efficiency research and development. Gail has a Master's degree in Economics from the Colorado School of Mines and a Bachelor's degree in Finance from the University of Colorado. Gail is NREL's trans-national Arctic lead and works on strategic aspects related to the Arctic and is developing an expertise in energy solutions in remote communities to improve resilience, energy security and in aspects related to the energy-waterfood nexus. A primary area of Gail's expertise is working with the U.S. Environmental Protection Agency (US EPA) siting renewable energy on environmentally compromised lands including economic and technical analysis of

the viability of renewable energy on these sites and any related community impact. Another area of Gail's expertise is working with tribes and villages through U.S. Department of Energy (US DOE) on strategic energy planning that includes energy efficiency and renewable energy solutions to meet tribal energy requirements and improve resilience. She is a Project Leader for the Arctic Renewable Energy Atlas (AREA) Project of the Arctic Council's Sustainable Development Working Group (SDWG).



Johannes VALLIVAARA is CEO and Cluster Manager of ProAgria Lapland, Finland. This organization consists of a team of 23 specialists tasked with developing rural businesses and coordinating a network of food and energy sector companies and developers. He is constantly looking for ideas to keep sparsely populated areas alive and to help the local Arctic communities where he is based develop new business initiatives. Johannes lives in Rovaniemi, which is located in Finland's northernmost region, Lapland. It is a small city with 62,000 inhabitants and known worldwide as a hometown of Santa Claus. He studied management and accounting at the University of Lapland. Johannes has also researched on the use natural raw materials as a food and for healing purposes, and has a small garage studio where

he is developing new products in this area. He is also a partner in a small safari company based at the northernmost municipality of Lapland. He loves to spend time with his family in nature during his free time.



GOH Shu Hui Gina is a final year Biological Sciences undergraduate at the Nanyang Technological University. She is the co-founder and Singapore's youth representative of the global Arctic Youth Network (AYN). Being passionate about Biodiversity Conservation and Climate Change, Gina has been volunteering with National Parks Board as a Conservation Volunteer in hope to raise greater conservation awareness on local wildlife. She is also an administrator of the 'Campus Creatures' Facebook Page, a platform which allows people to share and learn about their wildlife encounters on various campuses in Singapore. In 2011, Gina was awarded the HSBC-NYAA Youth Environmental Awards due to her outstanding leadership and contributions in Biodiversity and Environmental conservation and was given the opportunity to participate in an Earthwatch research expedition to Churchill, Manitoba, in Canada, to study on Climate Change at the Arctic's Edge in 2014. More recently in 2017, Gina was the first youth delegate to represent Singapore in the 5th Arctic Circle Assembly in Reykjavik, Iceland, where she gave a speech on 'Biodiversity Conservation and Environmental Stewardship—Igniting the Arctic Youth Movement, Making the Move', and emphasised the need for multi-lateral cooperation among different countries in order to make conservation of Biodiversity and environmental efforts more effective.



Simon KUIK is Vice President and Head of Research & Development at Sembcorp Marine. He is also the Chairman of LMG Marin AS and Gravifloat AS, which are Sembcorp Marine's subsidiaries in Norway and Director of various Sembcorp Marine's technology associate companies. Sembcorp Marine provides innovative engineering solutions to the global offshore, marine and energy industries. Simon is overseeing the research and development division and is responsible for developing new technology and product solutions. Synergising Norwegian Technology Companies experience and Sembcorp Marine Marine's track record in delivering sophisticated vessels, the Group's develop a full suite of environmentally sustainable solution the growth demand for energy, transportation and security, in deeper, harsher and colder frontiers.

Prior to his current appointment, Simon was a General Manager (Technology Development and Solutions) at Sembawang Shipyard. His other positions held include Yard Manager of an overseas shipyard, Assistant GM (Engineering) and GM (Operations). He is currently a member of several major industrial councils and educational institution committees, including Singapore Maritime Foundation (SMF), Association of Singapore Marine Industries (ASMI), Ngee Ann Polytechnic, Nanyang Technological University, and University of Glasgow of Singapore, etc. He holds a Bachelor of Engineering (1st Class Hons) in Naval Architecture Marine Technology from the University of Newcastle-Upon-Tyne, England and an MBA from Sloan School of Management at Massachusetts Institute of Technology, USA. He is always been a keen birdwatcher and nature lover.



Christopher LEN, PhD is a Senior Research Fellow at the Energy Studies Institute, National University of Singapore. He was previously a Research Fellow at the Stockholm-based Institute for Security and Development Policy (ISDP) where he was responsible for the Energy and Security in Asia Project. His research focuses on Asian energy and maritime security issues, regional infrastructure connectivity, as well as the growing political and economic linkages between the various Asian sub-regions. In recent years, he has also developed an interest in the Arctic region, focusing on energy policy-related issues in the Arctic which are also of relevance to the wider world – from the governance of sustainable energy transition, to energy access in remote locations, maritime infrastructures and shipping, and

issues related to innovation, resilience and capacity-building. He obtained his PhD from the Centre for Energy, Petroleum and Mineral Law and Policy (CEPMLP) at the University of Dundee in Scotland. He also has degrees from the University of Edinburgh, Scotland and Uppsala University, Sweden.