



香港恒生大學
THE HANG SENG UNIVERSITY
OF HONG KONG

社會科學系
Department of Social Science

公共政策研究中心
Centre for Public Policy Research

大中華研究中心
Centre for Greater China Studies

Global Energy Transition in the Uncertain Age of Climate Change Governance

Date: 22–23 September, 2026

Venue: Lee Ping Yuen Chamber
Lee Quo Wei Academic Building
The Hang Seng University of Hong Kong



The Future of Global Energy



Driven by the urgent need to transition from fossil fuels to clean energy, mitigate climate change, and navigate rising geopolitical rivalries, the global energy landscape is undergoing a profound transformation. However, this transition is fraught with unprecedented risks, including supply chain disruptions, technological vulnerabilities, and energy security challenges.

About Conference



Hosted by The Hong Kong University of Science and Technology (HKUST), this interdisciplinary conference serves as a critical platform for dialogue and collaboration, bringing together experts from international relations, policy science, energy sustainability, and green finance, alongside key stakeholders from governments, NGOs, and the energy sector to shape resilient and inclusive energy systems. The academic discussions will focus heavily on climate-related financial risks and the uneven socio-economic impacts of climate policies across regions.

Participants will explore how international collaboration, innovative financial mechanisms, and robust policy frameworks can promote a just transition and sustainable development. Special emphasis will be placed on leveraging green finance to accelerate decarbonization while ensuring equitable outcomes for all communities. This conference is fully supported by Inter-Institutional Development Scheme (IIDS) of Research Grants Council, Hong Kong Special Administrative Region.

THE ORGANISING TEAM



Dr CHAN, Chi Ming Victor

Principle Investigator
Assistant Professor
Department of Social Science,
The Hang Seng University of Hong Kong



Dr CHENG, Wui-wing Andy

Co-Investigator
Associate Professor
Department of Economics and Finance,
The Hang Seng University of Hong Kong



Dr LIAO, Janet Xuanli

Co-Investigator
Reader
Centre for Energy Petroleum and Mineral Law and Policy (CEPMLP),
Univeristy of Dundee



Prof YIN, Zhujia

Co-Investigator
Professor
School of Economics and Management,
Changsha University of Science and Technology (CSUST)

THE PROJECT SUPPORT TEAM



Ms. Ai-Wei CHANG

Research Assistant
Department of Social Science,
The Hang Seng University of Hong Kong



Mr. Douglas PEA

Research Assistant
Department of Social Science,
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Mr. Ken CHOW

Assistant Officer
Department of Social Science,
The Hang Seng University of Hong Kong

RUNDOWN - 22 SEPTEMBER

Time	Programme
08:45-09:00	Registration and Welcome Coffee
09:00-09:10	Welcome Speech Prof. Joshua MOK , President of the Hang Seng University of Hong Kong
09:15-09:25	Opening Remarks Prof. K.K. TAM, Dean of School of Humanities and Social Science, The Hang Seng University of Hong Kong
09:25-09:30	Group Photo Session
09:30-10:45	Keynote Speech (1) A National Blue-ESG Index: Measurement of Marine Sustainability (Speaker Prof. C P Chang, Shih Chien University) Chair: Dr Andy CHENG, The Hang Seng University of Hong Kong
10:45-11:00	Coffee Break
11:00-12:30	Panel 1: Risks and Resilience in Energy Transitions Chair: Dr WANG Shiru, The Hang Seng University of Hong Kong
12:30-14:00	Lunch
14:00-15:30	Panel 2: Financial Risks and Green Finance Opportunities Chair: Dr Chi-Kit CHAN, The Hang Seng University of Hong Kong
15:30-15:45	Coffee Break
15:45-16:45	Plenary Session (1) Air Pollution and Firm Labor Investment Efficiency: Evidence from China (Speaker: Prof. KONG Dongmin, Huazhong University of Science and Technology) Chair: Prof. C P CHANG, Shih Chien University
16:45-17:45	Roundtable: Hong Kong as a Regional Hub for Climate Finance and Energy Transition Chair: Dr Victor CHAN, The Hang Seng University of Hong Kong
18:00-20:00	Welcome Dinner

RUNDOWN - 23 SEPTEMBER

Time	Programme
09:00-09:30	Registration and Welcome Coffee
09:30-10:45	Keynote Speech (2) Assessing climate change goals in a time of global turbulence (Speaker: Prof. James Henderson, The Oxford Institute for Energy Studies) Chair: Dr Janet LIAO, University of Dundee
10:45-11:00	Coffee Break
11:00-13:00	Panel 3: Just and Inclusive Energy Transitions: Justice, Governance, and Inclusion Chair: Dr Gary TANG, The Hang Seng University of Hong Kong
13:00-14:30	Lunch
14:30-15:30	Plenary Session (2) Seeking Opportunities for Energy Cooperation in a Turbulent Geopolitical Environment (Speaker: Prof. YANG Lei, Peking University) Chair: Dr Eva HUNG, The Hang Seng University of Hong Kong
15:30-15:45	Coffee Break
15:45-17:45	Panel 4: Geopolitics of Energy Transition: Power, Security, and Global Governance Chair: Dr Joe Poon, The Hang Seng University of Hong Kong
18:00-20:00	Dinner

KEYNOTE SPEAKER



Prof. CHANG Chun-ping

Shih Chien University

Prof. Chun-ping Chang holds professorships at Shih Chien University and serves as Editor-in-Chief of Asia & the Pacific Policy Studies and Co-Editor of Emerging Markets Finance and Trade. Recognized among the World's Top 2% Scientists, he ranks first in Taiwan in the economics category. His research spans energy economics, political economy, and applied econometrics. His latest work demonstrates how strategic environmental spending and FDI optimize energy efficiency and mitigate CO2 emissions across Asia.

A national Blue-ESG index: measurement of marine sustainability

Within the framework of the United Nations Sustainable Development Goals (SDGs), particularly SDG 14 (Life Below Water) and SDG 13 (Climate Action), advancing sustainable marine development under conditions of climate governance uncertainty and accelerating global energy transition has become a critical policy challenge for governments worldwide. The blue economy has increasingly been incorporated into national development strategies and climate action plans; however, systematic cross-country evaluation tools remain limited. To address this gap, this study develops an innovative national-level Blue-ESG index to comprehensively measure marine sustainability across 80 countries over the period 2000–2024. The framework integrates marine economic resilience, environmental protection, social inclusiveness, and governance capacity into a unified analytical system.

The results indicate that global Blue-ESG performance follows a “slow rise–fluctuant decline” trajectory, with a pronounced downturn after 2017. This reversal coincides with escalating geopolitical tensions, de-globalization trends, and the COVID-19 pandemic, which have disrupted marine supply chains, weakened multilateral cooperation, and constrained sustainable investment. OECD countries significantly outperform non-OECD countries, reflecting stronger regulatory institutions, more coherent marine governance strategies, and greater financial commitment to ocean sustainability. Continental comparisons further reveal that Europe and Oceania lead global performance, whereas South America and Africa lag behind, while Asia and North America exhibit substantial intra-regional disparities.

These findings reveal structural imbalances in the global effort to coordinate marine sustainability with climate governance, reflecting substantial disparities in marine economic capacity, environmental protection investment, and institutional quality. Such differences suggest that countries face varying institutional and capacity constraints in advancing the ocean- and climate-related agendas of the SDGs. By constructing a national-level Blue-ESG index, this study provides a quantifiable framework for assessing and comparing marine sustainability performance across countries, thereby supporting more coordinated alignment between marine policy and climate governance objectives in the context of the global energy transition.

KEYNOTE SPEAKER



Prof. James HENDERSON

The Oxford Institute for Energy Studies

Prof. James HENDERSON leads critical research on energy transition and geopolitics at the Oxford Institute for Energy Studies. As an honorary and visiting professor across multiple European universities, his interdisciplinary expertise bridges industry and academia. His latest work analyzes the structural shifts in global gas markets and infrastructure security in the post-crisis era, building the foundation of systemic resilience and equitable climate governance for future energy systems.

The Geopolitics of Energy System Transformation

The world is on course to miss its climate change targets by a considerable margin and global temperatures are set to rise by 2-3 degrees above levels before the industrial revolution. Urgent action is required and the UN has argued that global cooperation will be critical if catastrophic impacts are to be avoided. However, at present energy security, affordability, and economic development are seen as greater priorities, with the current wars in Ukraine and the Gulf taking the political focus away from environmental action. In addition recent COPs have underlined that global consensus will be difficult, if not impossible, to reach given the very different starting points of many countries and regions.

This paper will seek to examine the complexities of the transition away from fossil fuels to zero carbon energy sources and will ask a number of critical questions. Can renewable energy provide increased security of supply for fossil fuel importers and what key risks are involved? How should we deal with the potentially devastating loss of economic rent among fossil fuel producers? How can collaboration be achieved when the ambitions of many countries diverge so widely? Will the rivalry between the world's economic and political superpowers be a catalyst for green energy development or a hinderance? How should we think about security of supply in green energy given the complexity of the supply chains, and are there any lessons to be learned from fossil fuels? Should we be paying much more attention to adaptation given the current failure to reduce global green-house gas emissions? At what point will the environment return to the top of the political agenda and how should companies prepare?

While it will be difficult to provide answers to all these questions, the paper will aim to highlight potential ways forward and to assess key challenges and opportunities.

KEYNOTE SPEAKER



Prof. KONG Dongmin

Huazhong University of Science and Technology

Prof. Kong Dongmin is a Professor of Finance and Deputy Dean at the School of Economics within Huazhong University of Science and Technology (HUST), China, where he has served since 2006 and currently leads as a doctoral supervisor. He earned his PhD in Management from Sun Yat-sen University. Prof. Kong possesses extensive global academic expertise, contributing to international scholarly publishing as a Co-editor for Economic Analysis and Policy and an Associate Editor for China Finance Review International. His primary research interests focus on corporate finance, behavioral finance, business behavior, and the modernization of the Chinese capital market.

Air Pollution and Firm Labor Investment Efficiency : Evidence from China

The world is on course to miss its climate change targets by a considerable margin and global temperatures are set to rise by 2-3 degrees above levels before the industrial revolution. Urgent action is required and the UN has argued that global cooperation will be critical if catastrophic impacts are to be avoided. However, at present energy security, affordability, and economic development are seen as greater priorities, with the current wars in Ukraine and the Gulf taking the political focus away from environmental action. In addition recent COPs have underlined that global consensus will be difficult, if not impossible, to reach given the very different starting points of many countries and regions.

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KEYNOTE SPEAKER



Prof. YANG Lei

Peking University

Prof. Yang Lei is a Research Professor and Deputy Dean of both the Institute of Energy and the Institute of Carbon Neutrality within Peking University, China. He possesses extensive global expertise in energy governance, having previously served as a Senior Advisor to the International Energy Agency (IEA) and Chair of the International Gas Union (IGU) Coordination Committee. Prof. Yang's primary research interests focus on corporate finance, behavioral finance, business behavior, and the modernization of the Chinese capital market.

Seeking Opportunities for Energy Cooperation in a Turbulent Geopolitical Environment

The energy crisis stemming from the Middle East wars serves as a stark reminder that there is no energy isolate island in the world. However, the weaponization of energy is also becoming a new trend. How to ensure energy security while simultaneously promoting emission reduction and economic development—seemingly contradictory goals—is seeing a glimmer of hope thanks to the rapid development of renewable energy sources with lower cost. However, this path will not be smooth. On the one hand, international trust has significantly decreased, with Western countries concerned about the risks posed by China's dominance in the industrial chain. On the other hand, China is encountering significant market mechanism obstacles in further increasing its wind and solar power capacity. Exploring the establishment of a more open and transparent market, and leveraging its fundamental role in optimizing resource allocation, presents a crucial opportunity for energy cooperation amidst a turbulent geopolitical environment. Further mutual trust should be built through cooperation in market mechanism research to propel us towards a more sustainable energy future.

PANEL 1

Risks and Resilience in Energy Transitions



Chair: Dr WANG Shiru, The Hang Seng University of Hong Kong

This panel examines the major risks, trade-offs, and sources of resilience that shape contemporary energy transitions. As decarbonization accelerates, clean energy deployment is increasingly influenced by pressures surrounding critical mineral supply, land use, material demand, and broader environmental risk. Bringing together perspectives from energy systems, resource sustainability, and finance, the panel considers how these interconnected challenges affect the pace, cost, and stability of transition pathways.

Rather than treating the energy transition as a purely technological shift, the panel highlights it as a complex socio-economic and ecological transformation. It draws attention to the vulnerabilities embedded in supply chains, infrastructure expansion, and environmental change, while also exploring the policies, market structures, and organizational capacities that can strengthen resilience. Overall, the panel offers a timely discussion of how to design energy transitions that are not only low-carbon, but also secure, adaptive, and sustainable.



Prof. XU Yuan

The Chinese University of Hong Kong, China

Yuan Xu is an associate professor in the Department of Geography and Resource Management and leads the Environmental Policy and Governance Programme in the Institute of Environment, Energy and Sustainability as well as the Center for Urban Innovation in the Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong. He has published widely on energy and environmental policy, governance and strategy, and technological and industrial development, covering fossil fuels and renewables. He has been the President of the Professional Association for China's Environment (PACE) since 2022. He is also a co-founder and currently the secretary general of the Chinese Association of Environmental and Resource Economists (CAERE). Before joining CUHK in August 2010, he received a Ph.D. degree in public policy from the Woodrow Wilson School of Public and International Affairs, Princeton University and was a postdoctoral research associate in the Industrial Performance Center, Massachusetts Institute of Technology. He also holds an M.S. degree in climatology, a B.S. degree in atmospheric sciences and a bachelor's degree in economics, all from Peking University.

Can battery recycling as urban mining become a crucial source to meet China's lithium demand?

Large-scale electrification and energy transition require electric vehicles and energy storage to distinguish the crucial status of batteries and critical metals. This study focuses on lithium to examine the potential of recycling in addressing the security concerns. We find that China has established a significant battery recycling industry, although only a quarter is in the formal sector on its whitelist. Our fieldwork reports that for recycling Li_2CO_3 from end-of-life batteries in China, the costs are about CNY 30,000 (~US\$4,180) per metric ton, in which energy, reagents, labor and others are responsible for 29.1%, 41.2%, 8.0% and 21.7%, respectively. This is lower than average brine mining and hard-rock mining costs to create positive market values of end-of-life batteries. Together with high technological recovery ratios (~85%) and potentially significant collection rates, we conclude that recycled lithium is a technologically feasible, economically sustainable, and resourcefully significant domestic source to reduce imports.



Prof. CHEN Shi

The Hong Kong University of Science and Technology

Chen Shi is an Assistant Professor of Division of Environment and Sustainability at The Hong Kong University of Science and Technology. Professor Chen's research interests focus on devising solutions to real-world challenges in the transition to a net-zero emissions society, with particular emphasis on energy systems. She investigates how to develop context-specific renewable energy system solutions that effectively address practical constraints, quantifies the synergies and trade-offs between energy transition and other sustainability goals, and examines the dynamic interplay between policy and energy transition. Driven by real-world needs, her research integrates multidisciplinary and spatiotemporal quantitative methods across global and local scales to address the challenges of climate change, aiming to provide actionable decision-support tools for policymakers and stakeholders. In recent years, she has published multiple papers as the first author in international authoritative journals such as PNAS (two articles), Joule, One Earth, and Communications Earth & Environment. She was named to the MIT Technology Review "Innovators Under 35" China list and was selected as a 2025 Future Earth Young Scholar (17 globally).

The effect of land costs on the economic and sustainability performance of solar photovoltaics in China

Scaling up solar photovoltaics (PV) is essential for global decarbonization, particularly in China—the world's largest greenhouse gas (GHG) emitter. Despite leading in PV installations, China has yet to widely adopt the more efficient tracking technologies for capturing solar radiation (12% adoption rate), in stark contrast to the United States (90%). To examine the rationale behind this divergence and its consequences, we develop a spatially explicit, integrated model to evaluate and compare tracking and fixed-tilt systems in China—comparing power generation, land use, cost, sustainability, and policy resilience. We find that although single-axis tracking provides electricity gains and appears technically more cost-effective, rising land prices in China could offset its benefits. Land costs increase the levelized cost of electricity by 20% for tracking systems, compared to 8% for fixed-tilt, making the latter cheaper in real-world conditions. Consequently, land-efficient fixed-tilt systems are favored, despite requiring 18 to 26% more panels for the same output—intensifying material demands. Under a 6 PWh target in 2060, current land policies would drive 59% of electricity toward fixed-tilt. Reducing soft land costs could increase the adoption of tracking systems to 63% and reduce installed capacity by up to 8% (219 GW) under the same electricity output, compared with an increasing costs scenario, but would expand land use by 35% or 12.9 thousand km². Our findings underscore how land economics and policy shape renewable technology deployment. They highlight critical trade-offs between energy yield, land use, and material demand, offering insights for designing more balanced and resilient decarbonization strategies.



Prof. Lau Chi-keung

Zhejiang Yuexiu University

Professor Chi Keung Marco Lau is a Professor at Zhejiang Yuexiu University, China, and has been recognized on Stanford University's World's Top 2% Scientists list for 2023–2025, ranking 177th globally in Finance. He is also ranked among the world's top 1% of economists by IDEAS/RePEc. His research focuses on FinTech, digital assets, and information transmission in financial markets. Over the past five years, he has published extensively in leading SSCI and SCI indexed journals, including top-tier outlets such as *Annals of Tourism Research* and *International Review of Financial Analysis*. He holds an H-index of 53 with over 11,000 citations. Professor Lau has contributed to major research projects funded by the National Natural Science Foundation of China and the Hong Kong SAR Government, and serves on the editorial board of *Humanities and Social Sciences Communications* (JCR Q1).

Biodiversity Risk and Firm Market Volatility: Evidence from U.S. Public Firms

This study examines the relationship between biodiversity risk and firm market volatility using a panel dataset of publicly listed 3,014 U.S. firms over the period 2002–2022. Using panel regression models with firm- and year-fixed effects, the results show that biodiversity risk is positively associated with firm market volatility. Firms with greater exposure to biodiversity-related risks experience greater stock price fluctuations, indicating that biodiversity loss contributes to increased financial uncertainty. Further analysis shows that the relationship between biodiversity risk and market volatility varies across firms with different characteristics. The effect is stronger for firms operating in nature-sensitive industries, firms with higher biodiversity industry footprints, and financially constrained firms. In addition, the moderating analysis shows that managerial capability, operational efficiency, strong corporate culture, and research and development investment reduce the volatility effects associated with biodiversity risk. These findings suggest that internal firm capabilities can help mitigate the financial consequences of biodiversity-related risks. Several robustness tests, including lagged models, dynamic panel estimation, and propensity score matching, confirm the stability of the results. Overall, the findings highlight biodiversity risk as an emerging factor influencing firm-level financial uncertainty and provide evidence that financial markets are increasingly sensitive to biodiversity-related environmental risks.

PANEL 2

Financial Risks and Green Finance Opportunities



Chair: Dr Chi-Kit Chan, The Hang Seng University of Hong Kong

This panel examines the financial risks associated with climate change and the global energy transition, with a particular focus on stranded assets—investments in carbon-intensive industries that risk losing value in a low-carbon economy. It explores how environmental, social, and governance (ESG) performance and other risk assessment frameworks can help financial institutions and policymakers identify and mitigate these economic risks. The discussion emphasizes the disproportionate impact of these risks on developing countries and highlights the importance of aligning financial systems with sustainable development goals to ensure economic resilience during the transition to renewable energy.

The panel also addresses opportunities in green finance as a critical tool for mitigating stranded asset risks while accelerating investments in renewable energy. It examines innovative mechanisms such as green bonds, blended finance, and sustainable investment strategies that can mobilize private and public capital in both domestic and international markets. By focusing on actionable strategies, the panel aims to provide insights into how green finance can drive the energy transition, particularly in developing economies where financial gaps are most pronounced.



Prof. YIN Zhujia

Changsha University of Science & Technology

Zhujia Yin is Professor of Finance at Changsha University of Science & Technology. She received her Ph.D. from Jinan University, China. Her research interests cover corporate finance, financial markets and climate finance. She has published more than 40 articles in economic journals and published 2 monographs on corporate governance. She serves as Editor, Senior Editor and an editorial board member, including Editor of Asia & the Pacific Policy Studies; senior editor of Environment, Innovation and Management; and guest editor of Innovation and Green Development.

When the Storm Comes: How Physical Climate Risks Shapes Commercial Banks' EESG Performance

The banking sector is facing growing pressure from climate physical risks. While existing studies have primarily focused on the effect of climate risk on banks' ESG performance, our study contributes by integrating commercial banks' sustainable development capacity with ESG to construct banks' EESG (Economics, Environment, Social, Governance) index. Using a sample of US listed banks over the period from 2004 to 2025, we find that climate physical risk has a significant negative effect on banks' EESG performance. We identify banks' agricultural credit losses and municipal securities holdings reduction as two possible mediating mechanisms. In addition, the heterogeneity analysis shows that the negative effect of climate physical risk on banks' EESG is stronger in areas with greater climate vulnerability, Republican political leanings, and weaker infrastructure. Further analysis reveals that banks' participation in climate action, the establishment of catastrophe insurance, and Federal Emergency Management Agency's grants can effectively mitigate the adverse impact of climate physical risk on banks' EESG performance. Based on the above findings, we propose policy recommendations concerning both banks' internal conduct and external institutional frameworks.



Prof. ZHANG Weiming

Hong Kong Baptist University

Weiming (Elaine) Zhang, CFA, is Assistant Professor of Finance at the School of Business, Hong Kong Baptist University, a position she has held since July 2026. She previously served as Assistant Professor of Finance at IE Business School, IE University, Spain, from September 2022 to June 2026. Zhang earned her PhD in Finance from the Chinese University of Hong Kong in 2022, after completing a BSc in Quantitative Finance and Risk Management Science there in 2016 and an exchange at the University of Glasgow in 2015. Her research focuses on ESG investing, institutional trading, carbon emissions, bond liquidity, and options markets. She has published in leading journals including the Journal of Financial and Quantitative Analysis and Management Science. Zhang has received multiple honors, including research grants and best paper prizes from international institutions. She also serves as Subject Editor for the Journal of International Financial Markets, Institutions and Money.

Carbon Emissions Trading and Stock Price Informativeness: The International Evidence

This paper shows that emissions trading systems (ETs) globally enhance stock price informativeness at the firm level. ETS is particularly beneficial for firms where carbon-related information is financially material, earnings and returns are uncertain, and investors focus on carbon data. Our findings suggest that ETS reduces the cost of integrating carbon-related information by providing a transparent, market-based benchmark for carbon-related costs that are highly relevant for earnings forecasts. This leads to better-informed trading decisions and more accurate market prices. Correspondingly, analysts offer more precise and frequent earnings forecasts and are more likely to follow these firms after ETS implementation.



Dr Donni FAJAR ANUGRAH

Bank Indonesia Representative Office for East Java

Donni Fajar Anugrah is an Indonesian economist and policy practitioner currently serving as Advisor at Bank Indonesia's Representative Office for East Java. He earned a PhD in Economics from the University of Western Australia, along with a master's degree and graduate diploma in economics from the University of Birmingham, and a bachelor's degree in engineering from Bandung Institute of Technology. His career at Bank Indonesia spans monetary policy, regional offices, financial inclusion, and green economy. He also lectures at the University of Indonesia. His research focuses on inflation, growth, green finance, climate policy, and economic development, with numerous journal articles, working papers, and edited book publications.

Closing the Green Financing Gap in Indonesia: Key Barriers and Policy Priorities*

Green financing for MSMEs in Indonesia is expanding, but its scale remains limited relative to the potential of the green transition. This study identifies and prioritizes barriers to green financing from the demand, supply, and institutional sides applying survey evidence, interviews, focus group discussions (FGD), descriptive data, and literature review. The survey covers 40 MSME respondents and 40 financial institution respondents. By mapping the identified barriers according to their relative importance and policy relevance, the study develops a policy priority framework for narrowing the green financing gap.

The findings reveal a pronounced readiness gap: 67.5% of MSME respondents have never heard of green credit, while only 7.5% of financial institution respondents report actively disbursing green credit. From the supply side, 47.5% of financial institution respondents identify unclear green criteria as the main barrier, 30% cite weak borrower demand, and 15% consider existing incentives unattractive. The evidence points to three interrelated constraint groups: (i) weak demand-side green literacy and investment readiness; (ii) supply-side risk, incentive, and assessment constraints; and (iii) institutional gaps in taxonomy implementation, verification, data, and guarantees.

The findings suggest that policy interventions should focus on strengthening green financial literacy, improving the identification and verification of eligible green activities, reducing barriers associated with initial green investment, and strengthening coordination among policymakers, financial institutions, and businesses. The study contributes to the green finance literature by translating stakeholder-based evidence on financing constraints into a structured framework for prioritizing policy interventions in Indonesia.

*The presentation will be conducted online.

PANEL 3

Just Energy Transition: Justice, Governance, and Inclusion



Chair: Dr Gary Tang, The Hang Seng University of Hong Kong

This panel explores the just energy transition as a multidimensional transformation shaped not only by decarbonization goals, but also by questions of fairness, responsibility, governance, and social inclusion. Moving beyond narrow technological or emissions-based understandings of transition, it considers how energy and climate responses are embedded in broader social, political, urban, and financial systems. The panel highlights that a transition can be low-carbon without necessarily being just, and asks what kinds of institutional arrangements, investment strategies, and governance frameworks are needed to ensure that climate action is equitable, accountable, and socially inclusive.

Bringing together perspectives from urban climate justice, ESG-oriented energy investment, climate finance, and political theory, the panel examines how justice is produced, contested, and governed across different scales. It draws attention to the uneven distribution of costs, benefits, and vulnerabilities in transition processes, as well as to the importance of democratic participation and institutional capacity in shaping fairer energy futures. Overall, the panel offers a timely conversation on how to advance energy transitions that are not only efficient and sustainable, but also participatory, inclusive, and attentive to the needs of affected communities.

PANEL 3

Just Energy Transition: Justice, Governance, and Inclusion



Dr FULLER Sara

Macquarie University, Australia

Sara Fuller is Associate Professor in the School of Communication, Society and Culture at Macquarie University, Sydney, Australia. Her research explores concepts and practices of justice in the context of global environmental change, with an empirical focus on grassroots, community and activist responses to climate change. She has conducted research on low carbon urban transitions and climate governance; NGO discourses of energy justice; low carbon communities and social justice; and energy vulnerability in communities. Her current projects focus on the politics and governance of urban climate justice across the Asia-Pacific region. She is currently the Director of Education in the School of Communication, Society and Culture and the Editor-in-Chief for Geographical Research.

Transitions, responsibility and urban climate justice: the case of Singapore

Cities are framed as both causally responsible for carbon emissions and vulnerable to climate impacts. In this context, the rhetoric and practice of transitions offers opportunities for both a moral and political reimagining of the city alongside an array of infrastructural and material interventions. To date however, the social, scalar, and spatial processes that underpin the production and manifestation of climate responsibility in the context of cities remain under researched. Through a lens of climate justice, this paper draws on a case study of Singapore. It reflects on the scalar dynamics of housing, green space and labour as key sites of contestation for just transitions in the city. The paper draws attention to the diverse pathways leading to urban climate transformations and explores how climate justice is produced in, through and beyond the Asian city. In so doing, it offers new theoretical perspectives on the dynamic relationship between cities and just climate transitions.

PANEL 3

Just Energy Transition: Justice, Governance, and Inclusion



Prof. FU Qiang

Changsha University of Science and Technology, China

Assistant professor of the School of Economics and Management, Changsha University of Science and Technology. Her research interests are Green Economy, Energy Economy, Sustainable Development and has published more than 20 papers in several journals, such as *Oeconomia Copernicana*, *Energy Economics*, *Technological and Economic Development of Economy*. She is also the editor of *Environment, Innovation and Management*, *Innovation and Green Development* and the anonymous reviewer of several journals.

Sustainable Assessment of Power Generation Investment in China: Key Factors and Implications for Energy Policy Transformation

This study uses panel data from 30 Chinese provinces between 2016 and 2022 to assess the sustainability of regional power generation investment (PGI) using an Environmental, Social and Governance (ESG)-based evaluation framework. The entropy weight method was used to measure PGI-ESG performance, while dynamic fsQCA identified configurational pathways and their temporal evolution. Multi-period fsQCA compared policy-stage differences, and regression analysis examined directional consistency. The results demonstrate an overall increase in PGI-ESG performance, though it remains heterogeneous across regions. While no single condition is necessary for high performance, renewable energy absorption governance capability is repeatedly embedded in high-performance configurations. Four configurations were grouped into three types: low-carbon constraint and absorption coordination capability dominant; multidimensional joint-driven; and governance and power infrastructure capability synergistic. Further analysis of policy stages shows that, following the shift from monitoring the share of renewable electricity consumption to assessing responsibility weight, absorption governance evolves from an auxiliary condition in certain configurations to a core condition in all high-performance configurations. These findings reveal the complexity and cross-regional stability of sustainable PGI performance, as well as policy-relevant changes.



Prof. YANG Jingjing

Guangdong University of Foreign Studies, China

Dr. Jingjing Yang is a Professor of Finance at Guangdong University of Foreign Studies in China. His research interests include corporate finance, energy finance, and corporate governance. His work has been published in *Energy Economics*, *Journal of Business Ethics*, *Journal of Portfolio Management*, *International Review of Financial Analysis*, *International Review of Economics and Finance*, among others.

Is Climate Transition Risk Priced in the Chinese Stock Market? Evidence Around the “Dual-Carbon” Target Proposal

We examine whether the cross-sectional relation between firm-level climate transition exposure and expected stock returns depends on the salience of climate policy. Using the Management Discussion and Analysis sections of Chinese A-share firms' annual reports, we construct a disclosure-based climate transition exposure (CTE) measure and relate lagged CTE to one-month-ahead returns through portfolio sorts and Fama-MacBeth regressions. Before China's September 2020 dual-carbon announcement, the equal-weighted high-minus-low CTE return spread is -0.44% per month ($t = -3.28$). In the post-announcement sample, the spread reverses to 2.03% ($t = 2.25$); value-weighted and factor-adjusted returns show the same reversal. Cross-sectional regressions and robustness tests using full annual reports, bivariate sorts, fixed effects, and zero-CTE firms yield consistent patterns. The evidence is consistent with policy salience changing how investors process and price disclosed transition exposure. Because the design compares subsamples rather than estimating a causal policy effect, we interpret the post-announcement premium as regime-dependent pricing evidence, not as proof that the announcement itself caused the reversal.

PANEL 3

Just Energy Transition: Justice, Governance, and Inclusion



Dr. LEUNG Kin-wai

The Hang Seng University of Hong Kong, China

Angelo Kin-wai Leung is a Lecturer at The Hang Seng University of Hong Kong, whose work centers on contemporary political philosophy and its applications to pressing global challenges. His current research examines the normative foundations of food sovereignty and their implications for food justice, exploring the ethical design of food systems. His core philosophical research focuses on developing an account of negative liberty in terms of disposition, distinct from established liberal and republican conceptions.

Non-Domination in Just Energy Transition: a Neo-Republican Framework

This article examines the normative foundations of a just energy transition. It argues that transitions should not be evaluated solely by their contribution to decarbonization, but also by whether they secure distributive, recognitional, and procedural justice. Drawing on energy justice scholarship, the article develops a neo-republican framework that integrates these three dimensions through the ideal of non-domination. Its central claim is that low-carbon transitions can remain unjust even when they reduce emissions: they may allocate the benefits and burdens of energy provision unfairly, obscure the differentiated situations of vulnerable and marginalized groups, or exclude affected communities from meaningful participation in energy planning. A transition is distributively unjust when it decarbonizes successfully while leaving some groups below a threshold of secure energy access. It is recognitionally unjust when policy treats vulnerable groups as undifferentiated “consumers” or “communities,” thereby erasing differences in need, capability, and histories of marginalization. It is procedurally unjust when institutions lack decision-making structures through which those most affected can contest, influence, and help shape energy policy. On this account, domination persists wherever energy institutions impose rules, costs, and risks that persons and communities cannot effectively contest. The article therefore shifts attention from aggregate outcomes to the institutional conditions under which decarbonization is planned, justified, and governed. A fully just energy transition requires more than climate effectiveness: it requires democratic control, equal standing, and institutional protection against arbitrary power in the governance of energy.

PANEL 4

Geopolitics of Energy Transition: Power, Security, and Global Governance



Chair: Dr Joe Poon, The Hang Seng University of Hong Kong

This panel examines how the energy transition is reshaping global politics, strategic competition, and patterns of international cooperation. Rather than viewing decarbonization as a purely environmental or technological process, it approaches the transition as a geopolitical transformation in which control over critical minerals, clean technology, supply chains, infrastructure, and regulatory frameworks has become increasingly central. The panel explores how states and regions respond to new forms of interdependence and vulnerability, how energy security concerns interact with climate goals, and how global governance arrangements are being reconfigured in the low-carbon era. Together, the contributions highlight that the energy transition is not leading to a post-geopolitical world, but instead generating new contests over influence, industrial leadership, and strategic autonomy across multiple scales.

PANEL 4

Geopolitics of Energy Transition: Power, Security, and Global Governance



Prof. VAKULCHUK Roman

Central Asian Development Institute (CADI) /
Norwegian Institute of International Affairs

Roman Vakulchuk is Co-founder of the Central Asian Development Institute (CADI), Bishkek, Kyrgyzstan. He works as Head of Climate and Energy Group at the Norwegian Institute of International Affairs. He is Research Professor and holds a Ph.D. in Economics obtained from Jacobs University Bremen in Germany (2013). He has extensive track record publishing in leading international academic journals. His research is cited in Bloomberg, Foreign Policy, The Diplomat, Energy Post, Euronews, World Economic Forum and other media. He advised more than 30 international organizations such as the Asian Development Bank (ADB), the German Development Cooperation (GIZ), Natural Resource Governance Institute (NRGI), OECD, the World Bank and various government institutions in Central Asia, Southeast Asia and Europe on the issues related to economic reform, renewable energy, energy transition, climate change. In 2013, Vakulchuk was awarded the prestigious Gabriel-Al Salem International Award for Excellence in Consulting.

Assessing China's participation in global governance of critical minerals for the energy transition*

Critical minerals are essential for the energy transition. By 2040, the global energy transition will drive up demand by more than 1,000% for lithium, cobalt, copper, nickel and other minerals needed for the production of solar panels, wind turbines and batteries. Only limited research has been produced about the existing landscape of international institutions governing supply chains of critical materials and the China's role in global governance. The paper will address this research gap and discuss the emerging architecture for global governance of critical materials. It will identify and classify critical materials partnerships aimed at securing access to better coordination, and management of critical materials mining and trade with a particular focus on China. The study will explore pathways for de-geopoliticizing global supply chains of critical materials via strengthening of global governance mechanisms. The research questions that the study will address are as follows: (1) How does China participate in global governance of critical materials? (2) In what ways the governance landscape is affecting the geopolitical reordering of the world and shaping the strategic interaction between China, the EU and the US? The study will draw on an original dataset of 120 governance institutions established and devised to govern critical materials. It will conclude by mapping obstacles and opportunities to enhance international collaboration in this strategic area.

*The presentation will be conducted online.

PANEL 4

Geopolitics of Energy Transition: Power, Security, and Global Governance



Dr. LIAO Xuanli Janet

Dundee University

Dr Janet Xuanli Liao is a Reader in International Politics at the Centre for Energy, Petroleum and Mineral Law and Policy (CEPMLP), within the Division of Energy, Environment and Society, Faculty of Arts and Social Sciences, University of Dundee. She obtained PhD in International Relations from the University of Hong Kong, M.A. in International Relations from the International University of Japan and held B.A. and M.A. in History from Peking University, China.

Dr Liao's research interests include China's energy diplomacy and the RBI (towards Central Asia-Russia, Middle East, Africa, etc.), relationship between Chinese NOCs and the government, Sino-Japanese political/ energy relations, and energy transition and climate governance. She has published widely in these subjects and has been invited to speak at various international conferences/workshops. She also served as Visiting Professor to Chinese and Japanese universities and was Honorary Professor at the China Institute of Boundary Studies, Wuhan University, 2008-2012.

Geopolitics and The Rocky Road of Sino-Britain Clean Energy Cooperation

China and the UK have shared interest and ambition in energy transition and decarbonization. Their collaboration in clean energy development started in the mid-2010s, the "golden era" of the bilateral relationship, indicated by the Hinkley Point C project, led by the French EDF involving two Chinese nuclear companies - China General Nuclear (CGN) and China National Nuclear Corporation (CNNC). The Chinese partners were brought in due to constantly delayed completion dates and ever-increasing cost associated with the project, but because of the concerns of "national security", the Chinese partners were eventually asked to withdraw while the project remains uncompleted up to date.

Despite deterioration of political relationship between UK and China over the past decade, the two countries remain connected in climate actions. In March 2025, the 8th Sino-British Energy Dialogue was held in Beijing, and a MoU for "UK-China Clean Energy Partnership" was signed to facilitate the bilateral collaboration on clean energy, including offshore wind. Sir Keir Starmer's visit to China in January 2026, was viewed as seeking to end the diplomatic "ice age" of the bilateral relationship, to facilitate further collaboration. Against this background, China's wind power company Ming Yang initiated a plan for £1.5bn investment in the Highlands for a wind turbine factory. Yet the plan was blocked by the UK government again for the sake of "national security".

This paper attempts to examine the problems behind the UK- Chinese energy cooperation, by looking into the interplays between domestic politics of the two countries and the impact of geopolitics. Two main questions will be asked: how do China and UK perceive their overall relationship, and how likely for them to collaborate in clean energy development under the current geopolitical atmosphere?

PANEL 4

Geopolitics of Energy Transition: Power, Security, and Global Governance



Dr Victor CHAN

The Hang Seng University of Hong Kong

Dr Victor Chi Ming Chan is an Assistant Professor in the Department of Social Science at The Hang Seng University of Hong Kong (HSUHK). His teaching and research interests span comparative politics, international relations, environmental governance, sustainable development, and the political and social transformations of East Asia. His recent research examines China's Belt and Road Initiative and its environmental and geopolitical implications, energy transition and climate governance, as well as governance and resilience in Asian societies. He also conducts research on Japanese politics and society, including political change, rural revitalisation, demographic challenges, and urban-to-rural migration. Dr Chan has participated in interdisciplinary and inter-institutional research projects addressing sustainability, governance, and regional development. Through his research and teaching, he seeks to connect comparative political and social analysis with contemporary policy challenges, particularly those arising from environmental transition, demographic change, and evolving regional relations in Asia.

Mediated Green Geoeconomics: China's Green BRI and Energy Transition in Pakistan, Kazakhstan, and Indonesia

China's Green Belt and Road Initiative (Green BRI) has shifted overseas energy engagement increasingly toward renewable energy, low-carbon infrastructure, and green industrial development. Yet similar forms of Chinese green investment generate markedly different transition outcomes across recipient countries. This paper develops the concept of Mediated Green Geoeconomics (MGG) to explain this variation through a comparative study of Pakistan, Kazakhstan, and Indonesia. MGG conceptualizes the effects of Chinese green finance, technology, infrastructure, and industrial investment as mediated by four host-country conditions: institutional capacity, fossil-fuel incumbency, development strategy, and geopolitical bargaining agency. Methodologically, the study employs structured, focused comparison and document analysis, drawing principally on Chinese and host-government policy documents, nationally determined contributions, national energy strategies and statistics, and reports from international organizations. The comparison identifies three configurations: security-mediated greening in Pakistan, where energy-security and electricity-sector constraints shape transition; diversification-mediated greening in Kazakhstan, where renewable investment coexists with hydrocarbon incumbency; and industrialization-mediated greening in Indonesia, where clean-technology supply chains intersect with coal-intensive mineral processing. The findings demonstrate that Green BRI investment does not directly determine decarbonization. Instead, host-country mediation determines whether green geoeconomic engagement produces energy addition or structural decarbonization and asymmetric dependence or negotiated green interdependence.

PANEL 4

Geopolitics of Energy Transition: Power, Security, and Global Governance



Ms. Zhang Cuicheng

University of Oxford United Kingdom

Cuicheng Zhang is an ARB/RIBA Chartered Architect and a DPhil researcher in Engineering Science at the University of Oxford, where he is affiliated with the Oxford e-Research Centre, Energy and Environmental Informatics, and ZERO Institute. As an ARB/RIBA Chartered Architect holding an MPhil from the University of Cambridge and MArch from AA School, she previously practiced at Foster + Partners, delivering sustainable design solutions. Her doctoral research integrates high-resolution climate modelling with machine learning to address Urban Heat Island (UHI) effects and their impacts on energy systems. Cuicheng actively translates her expertise into practice, recently winning First Place in the 2025 ASHRAE Region XIV Net Zero Building Design Competition. She is also a Finalist in the Stanford Global Sustainability Challenge and a recipient of the 2025 ASHRAE Herman and Dorothy Behls Travel Award.

Energy Transition after the Ukraine War: Convergence or Fragmentation in European Energy Governance

Russia's invasion of Ukraine made energy transition a more important security issue than ever in Europe. EU countries, however, have taken different approaches to this issue. Some countries have sped up their adoption of green energy, while others have doubled down on national strategic fossil fuel supply and storage. This raises several important questions: what explains the different directions of energy transition across EU countries? To what extent has the war encouraged convergence around common European energy and climate objectives, and to what extent has it reinforced national approaches to energy security? What factors explain these different responses?

To answer these questions, we measure changes in the coverage and framing of EU member states' 2019 and 2024 National Energy and Climate Plans using text-as-data methods. We then examine whether these changes are associated with countries' pre-war dependence on Russian energy, GDP, energy mix, and other country-level indicators. We also use qualitative case studies to explain why the same security shock produced different national responses.

While existing work shows that energy crises can redirect capital and policy attention when political signals are clear, this paper goes further by examining the patterns and mechanisms behind the different approaches EU countries have taken in response to the war in Ukraine. Using a mixed-methods approach, the paper shows not only how governments have adapted energy transition strategies following the crisis, but also why these adaptations have taken different forms across countries. In doing so, it contributes to debates on energy security, climate governance, and European integration by assessing whether the Ukraine war has fostered greater policy convergence within the EU or revealed growing tensions between collective transition goals and national energy priorities.

ROUNDTABLE

Hong Kong as a Regional Hub for Climate Finance and Energy Transition



Chair: Dr Victor Chan, The Hang Seng University of Hong Kong

This roundtable will focus on the role of Hong Kong-based practitioners in advancing climate finance and supporting the energy transition in the region. Bringing together speakers from various respective sectors, the session will offer practical perspectives on how Hong Kong can strengthen its position as a leading centre for green and transition finance. The roundtable is intended to connect policy, finance, and implementation, highlighting the institutional and market conditions needed to support decarbonisation in Hong Kong, Chinese Mainland, and the wider Asia-Pacific region.

The discussion will examine how Hong Kong can build on its status as an international financial centre to promote innovative green finance instruments, including green bonds, sustainability-linked loans, and carbon trading platforms. It will also consider how the city can help mobilise investment for renewable energy infrastructure, climate adaptation, and other transition-related priorities, while serving as a platform for regional and global collaboration on sustainable finance and energy policy.

ROUNDTABLE

Hong Kong as a Regional Hub for Climate Finance and Energy Transition



Mr Sam YEE

Experienced Risk Management Practitioner

Sam builds corporate functions, leads transformation programs, defines risk strategies, and implements compliance frameworks aligned with regulations and best practices. A dynamic leader, he excels at building and mentoring high-performing teams across risk, finance, compliance, operations, and technology, fostering a collaborative, innovation-driven culture to ensure strategic execution and regulatory excellence. His multidisciplinary expertise spans fintech, stored-value facilities, banking, money lending, e-commerce, loyalty platforms, and digital ecosystems. He holds master's degrees in law, statistics, and accountancy and professional qualifications such as SCR and CESGA. Committed to community engagement, Sam mentoring teens in the Strive and Rise Programme and supports charitable outreach and education.

Mr. Alan TO

CEO, Climate Finance Asia



Alan To is Group CEO of Climate Finance Asia, Hong Kong's pioneer sustainable finance consultancy founded in 2008. A seasoned ESG and strategic marketing leader with over two decades of experience, he has driven growth across Asia and MENA for global organizations, including S&P Global, ERM, Lloyd's Register, and Bayer, where he led US\$100M sustainability investments in China.

Recognized as a Sustainability A-List Leader 2025, and nominated at Spirit of Hong Kong Award 2020, Alan is also a dedicated social innovator. He co-founded two social enterprises (Yum Cha Together and Aromafunapy). With over 15 years of youth mentorship and social enterprise education, and having served on the HKSAR SIE Fund vetting panel, he lectures on sustainability at The Hang Seng University of Hong Kong.



Prof. Christine LOH

Chief Development Strategist, Division of Environment and Sustainability, Hong Kong University of Science and Technology

Professor Christine Loh is Chief Development Strategist, Institute for the Environment at the Hong Kong University of Science and Technology. She was Under Secretary for the Environment in the HKSAR Government (2012-17), Special Consultant to the Chief Executive on the mainland's ecological civilization policy (2019-20), and a legislator (1992-97 and 1998-20). Loh has been active in public policy since the 1980s. She founded and was the CEO of a non-profit think tank and is a published author of many academic and popular works – her latest book published in 2023 by HKU Press is about Covid-19. She serves as director on several local and international boards and committees, including the UN International Organization on Migration, and the Hong Kong Maritime Museum.

Mr. Peter LAM

Risk Management Specialist

Peter is a climate risk and green finance expert with over 25 years of international experience across Asia Pacific, Australia, and the UK. He leads the integration of climate risk, environmental factors and green finance into institutional risk governance. At HSBC, he led the Asia Pacific implementation of Enterprise Risk Management as Head of Risk Appetite and Risk Governance. His work with Deloitte and KPMG included major risk, Basel, and capital management engagements for global banks. Peter brings deep regulatory expertise to strengthening Hong Kong's role as a regional hub for energy transition and green finance. He holds an EMBA and CFA, FRM, and SCR qualifications.

CAMPUS MAP



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<https://cppr.hsu.edu.hk/en/globalenergytransition/>



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