

Jockey Club SolarCare Programme

ASIA SOLAR ENERGY for CLIMATE CHANGE CONFERENCE

A

S

E

C

C

C

Conference Proceeding Booklet 2023

ASECCC

ASIA SOLAR ENERGY FOR CLIMATE CHANGE CONFERENCE

PROCEEDING SERIES

- **ASIA SOLAR ENERGY FOR CLIMATE CHANGE CONFERENCE (ASECCC) 2023**
- SUMMARY OF THE ASIA SOLAR ENERGY FOR CLIMATE CHANGE CONFERENCE ORGANISED BY CARBONCARE INNOLAB HELD ON 23rd – 25th AUGUST 2023
- **CARBONCARE INNOLAB HONG KONG, 2023**

FOREWORD

The climate crisis is hastening at increasing speed and intensity. There are extreme fire, droughts and floods all over the world. We are particularly concerned about protecting the vulnerable communities in The Asia-Pacific Region. They are the least responsible for the climate crisis but suffer the most. They include people in poverty, persons with disabilities, women, minorities and others.

The governments of the world, after committing to the Paris Agreement of limiting temperature rise to 1.5°C, are still lacking resolve in actions. The NDCs add up to 2.4°C, way beyond disastrous level.

The scientists of the Intergovernmental Panel on Climate Change warned that we don't have a very large window. We have a very narrow window of ten years even less to make avert a disastrous course. So coming to COP 28, that's the time when we again examine what the governments are committed to, and more importantly, what they will actually do. So I hope this conference will have some impact as a citizens' voice. CarbonCare InnoLab (CCIL) is a small and modest community-based organisation in Hong Kong.

It was founded by me and other like-minded people. We are concerned about the climate crisis and we know if we have to change anything, defossilisation in the energy sector is the main way to transit to a low carbon economy. In the process, there has to be care for the vulnerable communities like the workers in the fossil fuel industry and also the poor communities affected by climate change.

CCIL has launched a SolarCare Programme to partner with NGOs to build solar energy systems as a demonstration that solar energy can be a replacement for fossil fuel <https://www.ccinnolab.org/solarcare/en/SolarCarePartners>.

In this Conference, we have invited speakers to address the policies, models, practices and technology of solar energy in the Asia Pacific region. We hope the sharing will help to accelerate the adoption. Thanks to The Hong Kong Jockey Club Charitable Trust for sponsoring the SolarCare Programme and this Conference.

Together we can make a change.



Mr. Chong Chan Yau
Co-founder and CEO of CarbonCare InnoLab

EDITORIAL NOTE

The opinions, views, and perspectives expressed in the Asia Solar Energy Conference for Climate Change Conference proceedings belong to the individual authors and do not necessarily reflect the official policy or position of the conference organisers, sponsors, or affiliated institutions. It is essential to consider the information presented within the proceedings as purely informative and not as professional advice or endorsement.

The organisers, authors, and editors of the conference proceedings shall not be held liable for any direct, indirect, incidental, special, consequential, or exemplary damages that may arise from the use or misuse of the information contained therein. Users are encouraged to exercise their own judgment and discretion when interpreting and applying the findings presented.

It is important to note that the inclusion of any company, product, service, or organisation in the conference proceedings does not constitute an endorsement by the conference organisers, sponsors, or affiliated institutions. The proceedings serve as a platform for the exchange of ideas and research findings, and any reference to external entities is not an explicit endorsement of their offerings.

The copyright of the Asia Solar Energy Conference for Climate Change Conference Proceedings' content and the condition of the materials associated with this publication are reserved and owned by CarbonCare InnoLab. Reproduction, distribution, or unauthorized use of any material from the proceedings without proper permission from the copyright holders is strictly prohibited.

ABOUT



CarbonCare Innolab

CarbonCare Innolab (CCIL) is an independent non-government organisation dedicated to the nurturing and development of innovative solutions in response to today's climate change and sustainability challenges. We put special emphasis on multi-stakeholder engagement and solution-oriented processes, as well as awareness-building across the community in Hong Kong. There is a need to motivate communities, and especially young people, to view the transition to a zero-carbon economy as an exciting opportunity rather than a disturbing threat. CCIL turns pessimism about climate change into an optimistic vision of a more engaged and participatory society, and more resilient and sustainable economy in Hong Kong. There is a way to promote a picture of the future which contains an array of possibilities and opportunities. CCIL carries the news that people can be part of the solution to climate change, not part of the problem.

Our mission is to encourage innovation that is both relevant to local needs and which contributes to solving global climate change challenges. This includes climate justice, carbon reduction, resource conservation and action that will assist adaptation and resilience building. CCIL is a charitable body registered in Hong Kong, enjoying tax exemption status under Section 88 of the Inland Revenue Ordinance.

Contributors of CCIL to the Asia Solar Energy for Climate Change Conference

The Asia Solar Energy for Climate Change Conference (ASECCC) recognises the vital contributions of CarbonCare InnoLab's contributors who support its mission of knowledge sharing and professional growth. From Conference designers and event organisers to speaker's outreach and technical support staff, these individuals play crucial roles in enhancing the quality and impact of the organisation's publications and initiatives, making them indispensable to the ASECCC's thriving success.



Chan Yau Chong
Co-founder and CEO



Ringo Mak
Programme Advisor



Alissa Tung
Programme Director



Gigi Lam
Programme Manager



Kevin Li
Researcher



Ken Tai
Project Manager



Hiu Chung Kwok
Senior Programme Officer



Kylie Lai
Senior Programme Officer



Angus Fung
Technical Officer



Roy Chow
IT Officer

SUPPORTING ORGANISATIONS



Asian Energy Studies Centre

CityNet

CITYNET
THE REGIONAL NETWORK OF LOCAL AUTHORITIES
FOR THE MANAGEMENT OF HUMAN SETTLEMENTS

香港 HONG
KONG
桂冠論壇 LAUREATE
FORUM



Hong Kong Laureate Forum



Jockey Club Museum of Climate Change

賽馬會氣候變化博物館
JOCKEY CLUB MUSEUM OF CLIMATE CHANGE

CONTENTS

FOREWORD	03
EDITORIAL NOTE	04
ABOUT	05
SUPPORTING ORGANISATIONS	07
A. INTRODUCTION	09
B. OVERVIEW OF THE CONFERENCE	10
1.1 Opening Plenary	10
1.2 Policy Sessions	11
1.3 Business Sessions	13
1.4 Civil Society Sessions	15
1.5 Closing Remarks	17
C. LIST OF SPEAKERS	19
D. SESSION RUNDOWN	21
E. PAPER ABSTRACT	23
F. ANNEX	29
G. ACKNOWLEDGEMENT	30

A. INTRODUCTION



The Asia Solar Energy for Climate Change Conference 2023 was held virtually from 23rd to 25th August 2023. The ASECCC has gathered 47 professionals and experts across the Asia Pacific region, to share their findings on solar energy related topics. The IPCC’s Sixth Assessment Report warns that immediate action is needed to prevent further disasters from climate change, including cutting carbon emissions by half and achieving carbon neutrality by 2030 and 2050 respectively.

The ASECCC strives to unite influential figures from the government, institutions, private sectors and civil sectors across the Asia Pacific region. The conference aims to foster communication regarding solar energy initiatives in climate mitigation and adaptation. It focuses on policy implementation, cross-border collaboration, advanced technology, climate finance, and best practices that promote climate justice. ASECCC 2023 will feature, panel discussions, research poster presentations, and the publication of proceedings, all centred around the theme of expediting the transition to solar energy in just approach. The conference offers valuable opportunities for stakeholders, policymakers, professionals, and emerging researchers in the field to exchange their findings and establish connections with regional innovators.

B. OVERVIEW OF THE CONFERENCE

The ASECCC, within the realm of solar energy, comprised three primary focuses: policy, business, and civil society. These interconnected domains formed the foundation of CCIL's efforts to promote sustainable solar energy solutions. Through its policy focus, the ASECCC invited professionals sharing their insights on shaping government policies and regulations to create a conducive environment for solar energy adoption. The business aspect involved discussions towards fostering collaborations and providing support to solar energy companies, encouraging green investment, and facilitating sustainable market growth. Lastly, the ASECCC engaged civil society by raising awareness, promoting education, encouraging community participation in solar energy initiatives and achieving energy just transition. By encompassing these three key areas, the ASECCC aimed to drive the widespread adoption of solar energy and pave the way for a sustainable future.

1.1 Opening Plenary

Session 1:

Opening Ceremony cum Opening Plenary:

How Asia Pacific Countries Meet Climate Goals Through Solar Energy Transition

2:00pm – 6:00pm HKT, 23 August 2024

This session provided inspiring insights on the journey towards a fossil-free Asia. The IRENA modelling research highlighted the crucial role of solar energy in achieving the 1.5-degree Celsius target in the ASEAN region. A case study on China's PV investment showcased positive outcomes resulting from effective policy implementation, particularly in rural poverty alleviation. The emphasis on a socially just transition underscored the importance of protecting the rights of vulnerable communities. The session indicated the need to extend the outcomes beyond mere economic strategies and prioritise the well-being of all individuals involved.

Speakers:



Mr. Liang-yi Chang
Asia Managing
Director of 350.org



Dr. Sam Geall
CEO of China Dialogue;
Associate Fellow of the
Chatham House



Dr. Ute Collier
Deputy Director, Knowledge,
Policy and Finance Centre,
IRENA

Moderator:



Mr. Chan Yau Chong
Co-founder and CEO of
CarbonCare InnoLab

1.2 Policy Sessions

Session 2:

Navigating Energy Crisis:

Paving the Way for Next-Generation Green Energy Development

4:00pm – 5:00pm HKT, 23 August 2024

In the context of the ongoing phase-out of fossil fuels, the session aims to delve into a critical question: Can solar energy development effectively meet the growing energy demands of our global society? This topic will be thoroughly examined from various angles, with a distinguished panel of experts offering insights and perspectives. The session seeks to shed light on the potential of green energy development as a means to address the energy gap that exists.

Speakers:



Dr. Darren Cheung
Research Assistant
Professor of the Asian Energy
Studies Centre,
Hong Kong Baptist University



Mr. David Fishman
Senior Manager of
The Lantau Group
(Shanghai) Ltd.



Mr. Fabby Tumiwa
Executive Director,
Institute for Essential
Services Reform (IESR), Indonesia

Moderator:



Ms. Bonnie Au
Multimedia Journalist

Session 3:

Solar Energy in Southeast Asia:

Opportunities, Challenges, and Collaborative Solutions

2:00pm – 3:30pm HKT, 24 August 2024

This session will explore the opportunities and challenges of solar energy development in Southeast Asia and highlight the collaborative solutions that can accelerate the transition to renewable energy. It will cover the latest trends in solar technology, approaches, and policy frameworks that can help unlock the potential of solar energy. The session will also showcase successful solar energy projects in the region and highlight the lessons learned from these experiences. Participants will gain insights on how to develop effective and inclusive strategies for solar energy deployment, and how to leverage regional collaboration to accelerate the transition to renewable energy in Southeast Asia.

Speakers:



Mr. Cedric Rimaud
Advisor,
Business Development of
Climate Finance Asia



**Mr. Alberto "Bert"
Dalusung III**
Energy Transition Advisor
at Institute for Climate and
Sustainable Cities, the
Philippines



Mr. Yanuar Fajari
Senior Program Officer
of Energy Transition
Partnership,
UNOPS

Moderator:



Ms. Claudia Lee
Climate Journalist and
Photojournalist

Session 4

**Navigating Geopolitical Risks in the Energy Transition:
Strategies for Success**

3:30pm – 5:00pm HKT, 24 August 2023

The transition to cleaner and more sustainable energy sources is facing significant geopolitical risks, including competition, instability, and conflict over energy infrastructure. These session panelists aim to address the social and political risks to ensure a successful energy transition and strategies.

Speakers:



Ms. Caroline Avan

Senior Natural Resources and Just Transition Researcher at the Business & Human Rights Resource Centre



Mr. Cory Combs

Associate Director, Trivium China



Mr. Roman Vakulchuk

Research Fellow, Norsk Utenrikspolitisk Institutt

Moderator:



Ms. Bonnie Au

Multimedia Journalist

Session 5:

Mobilising Municipalities:

How Urban Cities Can Drive Renewable Energy Investment

2:00pm – 3:30pm HKT, 25 August 2023

This session explores the role of urban municipalities as catalysts for renewable energy investment, unlocking the immense potential of urban centers in shaping a sustainable energy future. This session presents a remarkable opportunity to gain actionable insights into how urban municipalities in Asia have successfully overcome obstacles and leveraged opportunities to drive the adoption of renewable energy solutions. Discover and learn from the sharing successful practices that have propelled these cities forward, broadening your understanding of the crucial role they play in advancing renewable energy investment in Asia and beyond.

Speakers:



Ms. Gina B. Madin

Office of the City Planning and Development Coordinator, City of Santa Rosa, The Philippines



Dr. Kim, Jeong Won

Senior Research Fellow, Energy Studies Institute, National University of Singapore



Mr. Chee Shinichi

Member of Climate Youth Japan



Mr. Xuan Xie

Program Officer of ICLEI East Asia Secretariat



Dr. Alissa Tung

Programme Director of CarbonCare InnoLab

Moderator:

1.3 Business Sessions

Session 6:

Asia Pacific Energy Transition: Cross-Border Collaboration for Sustainable Energy Deals

4:00pm – 5:00pm HKT, 23 August 2023

The Asia Pacific region is at the forefront of the global transition towards sustainable energy, and cross-border collaboration between countries and cities in the region is key to its success. This panel session is a must-attend seminar for those interested in exploring the potential of sustainable energy deals and policies that can catalyse the region's energy transition. The opportunities and challenges of cross-border collaboration, and the critical role of renewable energy deals and solar energy policies in facilitating the transition towards a more sustainable future will be discussed, with a target of limiting global warming to 1.5-degree Celsius.

Speakers:



Dr. Daphne Mah

Director of Asian Energy Studies
Centre, Hong Kong Baptist
University



Mr. Gerry Arances

Executive Director of Center
for Energy, Ecology, and
Development, Philippines



Ms. Ho Wai Fun

Member of Solmunity, Policy
Specialist and CESGA®
ESG Analyst



Ms. Claudia Lee

Climate Journalist and
Photojournalist

Moderator:

Session 7:

New Horizons for Solar Energy Investment: Exploring the Investor's Role in Defossilisation and Decarbonisation

2:00pm – 3:30pm HKT, 24 August 2023

Discover the boundless possibilities of solar energy investment and embrace the investor's pivotal role in spearheading defossilisation and decarbonisation. This session aims to provide insights into the critical role the investors can play in advancing solar energy investment and driving defossilisation, while also exploring the challenges and opportunities associated with this rapidly evolving sector.

Speakers:



Dr. Farhad
Taghizadeh-Hesary

Associate Professor, Tokai
University, Japan; Vice
President and Co-founder
of the International
Society for Energy
Transition Studies (ISETS)



Dr. Pascal
Vuichard

Associate Director
Climate Change &
Sustainability Deloitte



Mr. Tung Ho

Country Director of
Allotrope Partners and
Co-lead of CEIA
Vietnam



Mr. Walter Marin

Founder of
Plug The Impact



Mr. Kevin Li

Researcher of
CarbonCare InnoLab

Moderator:

Session 8:

Latest Solar Technologies for Climate Mitigation and Adaptation: Innovations, Market Trends, and Applications

3:30pm – 5:00pm HKT, 24 August 2023

As the world embraces sustainable energy solutions to tackle the challenge of defossilisation, it is critical to stay abreast of the latest innovations and market trends. Our speakers will offer their perspectives on the latest solar technologies and their potential applications, highlighting the most promising developments that can help accelerate the transition towards a more sustainable future.

Speakers:



Prof. Hong-xing Yang
Professor of the Department of Building Environment and Energy Engineering, The Hong Kong Polytechnic University



Prof. Michael Leung
Professor of Shun Hing Education and Charity Fund Professor of Energy and Environment, City University



Ms. Yoriko Ashimine
Member of Climate Youth Japan



Mr. Ringo Mak
Co-Founder and Director of APAC SEP Ltd.; Co-Founder and Convener of 350HK

Session 9:

Mobilising Capital for Solar Energy Projects in Asia

2:00pm – 3:30pm HKT, 25 August 2023

The future of solar energy in the Asia Pacific region hinges on the availability of adequate funding to drive innovation and expansion. This panel session promises to be a thought-provoking and insightful discussion on how the financing mechanism can enable the development of sustainable energy solutions in the region.

Speakers:



Mrs. Alexandra Tracy
President of Hoi Ping Ventures



Ms. Costanza Strinati
Senior Analyst of Climate Policy Initiative* during the conference



Mr. Tim Buckley
Director of Climate Energy Finance, Sydney



Prof. ZhongXiang Zhang
Founding Dean and Distinguished University Professor at the Ma Yinchu School of Economics, Tianjin University

Moderator:



Ms. Claudia Lee
Climate Journalist and Photojournalist

1.4 Civil Society Sessions

Session 10:

The Future is Solar:

How Youth Can Drive Defossilisation through Renewable Energy Adoption

4:00pm – 5:00pm HKT, 23 August 2023

This session exemplifies the unwavering commitment and dedicated efforts of the young speakers, emphasizing the pivotal role of youth in propelling defossilization. Through the upskilling of young individuals and the promotion of youth climate action, they recognize the immense potential of young people to acquire new skills and spearhead initiatives, crucially accelerating the transition away from fossil fuels towards a sustainable future. Moreover, a remarkable collective of inspiring young leaders actively advocates for the critical involvement of youth in expediting the adoption of renewable energy and driving defossilization efforts in the Asia Pacific region.

Speakers:



Ms. Haruki Yamamoto
Member of
Climate Youth Japan



Ms. Priscilla Lin
Co-founder of Solcommunity
and The Shared Meal



Ms. Zainab Naeem
Associate Research Fellow of the
Head Program on Ecological
Sustainability & Circular
Economy at the Sustainable
Development Policy Institute
(SDPI)



Ms. Kylie Lai
Programme Officer of
CarbonCare InnoLab

Moderator:

Session 11:

Beyond the Panels:

Exploring Creative Solar Applications and Innovative Solutions

2:00pm – 3:30pm HKT, 24 August 2023

This session will shed light on the successful cases of community-based projects in integrating solar energy into the communities as a reference to the Asia Pacific region. As solar energy continues to gain momentum, it is crucial to explore how innovative solutions and applications can further mobilise decarbonisation and defossilisation efforts.

Speakers:



Mr. Chong Chan
Yau
Co-founder and CEO of
CarbonCare InnoLab



Ms. Kehkashan
Basu M.S.M
United Nations Human
Rights Champion and
Founder-President of
Green Hope Foundation



Dr. Shota Furuya
Researcher at Institute
for Sustainable Energy
Policies



Ms. Hwang Shu-te
Board of Director of
Green Advocates Energy
Cooperative (Taiwan)



Mr. Ringo Mak
Co-Founder and Director
of APAC SEP Ltd.;
Co-Founder and
Convener of 350HK

Moderator:

Session 12:
How to Ensure a Just and Inclusive Transition
 3:30pm – 5:00pm HKT, 24 August 2023

Explore how solar energy technology can help solve climate change, while ensuring a just energy transition that upholds labour rights, distributive justice, and procedural justice. Learn from experts in the field about strategies and policies that promote a fair and equitable transition to solar energy, leaving no one behind.

Speakers:



Mr. Al Bernarte
 Executive Director of SIKAT
 (Center for the
 Development of Indigenous
 Science and Technology)



Prof. Jusen Asuka
 Professor of Center for
 Northeast Asian Studies,
 Tohoku University



Dr. Kevin Lo
 Associate Professor of
 Geography and Acting
 Director of David C. Lam
 Institute for East-West Studies
 (LEWI)



Mr. Hiu Chung Kwok
 Senior Programme Officer of
 CarbonCare InnoLab

Moderator:

Session 13:
**A Comparison of Asian Cities' Progress Towards Carbon Neutrality
 through Renewable Energy and Green Finance**
 2:00pm – 3:30pm HKT, 25 August 2023

Topics covered in this session include the role of cities in the transition to a low-carbon economy, challenges and opportunities, successful case studies, and the importance of collaboration among cities in the region. Participants will gain insights on how to promote net zero actions, renewable energy, and green finance in their cities and accelerate progress towards carbon neutrality.

Speakers:



Dr. Angel Hsu
 Founder & Director,
 Data Driven EnviroLab;
 Assistant Professor,
 University of North
 Carolina at Chapel Hill



Dr. Sangmin Nam
 Director of Environment
 and Development
 Division of United
 Nations Economic and
 Social Commission for
 Asia and the Pacific
 (ESCAP)



Mr. Kevin Li
 Researcher,
 CarbonCare InnoLab



Ms. Xueye Liu
 Principal & Senior
 Research Fellow at
 Institute of Finance and
 Sustainability



Ms. Bonnie Au
 Multimedia Journalist

Moderator:

1.5

Session 14: Closing Remarks

The session "Glasgow Climate Pact: From Egypt to COP28 – Moving Forward with Energy Transition" provided a platform to explore the progress made in the global energy transition and discuss the way forward towards achieving the goals outlined in the Glasgow Climate Pact. With a focus on Egypt's experiences and perspectives, the session highlighted key initiatives, challenges, and opportunities in driving sustainable energy practices.

The session featured insightful discussions on the pivotal role of renewable energy sources, energy efficiency measures, and innovative technologies in decarbonizing the energy sector. Experts and stakeholders shared their experiences, best practices, and success stories in promoting renewable energy adoption and transitioning away from fossil fuels.

Additionally, the importance of international collaboration, policy frameworks, and financial support mechanisms in facilitating energy transition efforts was underscored. The session explored strategies to mobilise investments, enhance technical capacity, and create an enabling environment for sustainable energy projects.

The closing remarks emphasised the significance of collective action and a sense of urgency in accelerating the energy transition. Participants were encouraged to continue advocating for ambitious climate action, engaging youth and diverse stakeholders, and leveraging innovative solutions to address climate change. To sum up, the session provided valuable insights and recommendations for advancing energy transition efforts, ensuring a sustainable and low-carbon future. It served as a stepping stone towards COP28, inspiring participants to contribute actively and effectively towards achieving the objectives set forth in the Glasgow Climate Pact.

C. LIST OF SPEAKERS



Dr. Ute Collier
Deputy Director, Knowledge,
Policy and Finance Centre,
IRENA



Dr. Sam Geall
CEO of China Dialogue;
Associate Fellow of the
Chatham House



Mr. Liang-yi Chang
Asia Managing
Director of 350.org



Dr. Darren Cheung
Research Assistant
Professor of the Asian Energy
Studies Centre,
Hong Kong Baptist University



Mr. Fabby Tumiwa
Executive Director,
Institute for Essential
Services Reform (IESR), Indonesia



Mr. David Fishman
Senior Manager of
The Lantau Group
(Shanghai) Ltd.



Dr. Daphne Mah
Director of Asian Energy Studies
Centre, Hong Kong Baptist
University



Ms. Ho Wai Fun
Member of Solmunity, Policy
Specialist and CESGA®
ESG Analyst



Mr. Gerry Arances
Executive Director of Center
for Energy, Ecology, and
Development, Philippines



Ms. Zainab Naeem
Associate Research Fellow of the
Head Program on Ecological
Sustainability & Circular Economy
at the Sustainable Development
Policy Institute (SDPI)



Ms. Haruki Yamamoto
Member of
Climate Youth Japan



Ms. Priscilla Lin
Co-founder of Solmunity
and The Shared Meal



Mr. Yanuar Fajari
Senior Program Officer
of Energy Transition
Partnership,
UNOPS



Mr. Cedric Rimaud
Advisor,
Business Development of
Climate Finance Asia



**Mr. Alberto "Bert"
Dalusung III**
Energy Transition Advisor
at Institute for Climate and
Sustainable Cities, the
Philippines



Dr. Pascal Vuichard
Associate Director
Climate Change &
Sustainability Deloitte



Mr. Walter Marin
Founder of
Plug The Impact



Mr. Tung Ho
Country Director of
Allotrope Partners and
Co-lead of CEIA
Vietnam



**Dr. Farhad
Taghizadeh-Hesary**
Associate Professor,
Tokai University, Japan;
Vice President and Co-founder
of the International Society for
Energy Transition Studies (ISETS)



**Ms. Kehkashan
Basu M.S.M**
United Nations Human
Rights Champion and
Founder-President of
Green Hope Foundation



Mr. Chong Chan Yau
Co-founder and CEO of
CarbonCare InnoLab



Dr. Shota Furuya
Researcher at Institute
for Sustainable Energy
Policies



Ms. Hwang Shu-te
Board of Director of
Green Advocates Energy
Cooperative (Taiwan)



Mr. Cory Combs
Associate Director,
Trivium China



Ms. Caroline Avan
Senior Natural Resources and
Just Transition Researcher at
the Business & Human Rights
Resource Centre



Mr. Roman Vakulchuk
Research Fellow,
Norsk Utenrikspolitisk
Institutt



Prof. Michael Leung
Professor of Shun Hing
Education and Charity Fund
Professor of Energy and
Environment, City University



Prof. Hong-xing Yang
Professor of the Department
of Building Environment and
Energy Engineering, The Hong
Kong Polytechnic University



Ms. Yoriko Ashimine
Member of Climate Youth
Japan



Prof. Jusen Asuka
Professor of Center for
Northeast Asian Studies,
Tohoku University



Mr. Al Bernarte
Executive Director of SIKAT
(Center for the
Development of Indigenous
Science and Technology)



Dr. Kevin Lo
Associate Professor of
Geography and Acting Director
of David C. Lam Institute for
East-West Studies (LEWI)



Dr. Kim, Jeong Won
Senior Research Fellow,
Energy Studies Institute,
National University of
Singapore



Ms. Gina B. Madin
Office of the City
Planning and
Development
Coordinator,
City of Santa Rosa,
The Philippines



Mr. Chee Shinichi
Member of Climate
Youth Japan



Mr. Xuan Xie
Program Officer of
ICLEI East Asia
Secretariat



**Mrs. Alexandra
Tracy**
President of
Hoi Ping Ventures



**Ms. Costanza
Strinati**
Senior Analyst of
Climate Policy
Initiative” during the
conference



Mr. Tim Buckley
Director of Climate
Energy Finance,
Sydney



**Prof.
ZhongXiang Zhang**
Founding Dean and
Distinguished University
Professor at the Ma Yinchu
School of Economics,
Tianjin University



Dr. Angel Hsu
Founder & Director,
Data Driven EnviroLab;
Assistant Professor,
University of North
Carolina at Chapel Hill



Dr. Sangmin Nam
Director of Environment
and Development
Division of United Nations
Economic and Social
Commission for Asia and
the Pacific (ESCAP)



Mr. Kevin Li
Researcher,
CarbonCare InnoLab



Ms. Xueye Liu
Principal & Senior
Research Fellow at
Institute of Finance and
Sustainability

D. SESSION RUNDOWN

Day 1 Agenda

23 August 2023, Wednesday

Time	Topics
14:00 - 16:00 HKT (GMT+8)	Opening Ceremony cum Opening Plenary: How Asia Pacific Countries Meet Climate Goals Through Solar Energy Transition?
16:00 - 17:00 HKT (GMT+8)	Navigating Energy Crisis: Paving the Way for Next-Generation Green Energy Development
	Asia Pacific Energy Transition: Cross-Border Collaboration for Sustainable Energy Deals
	The Future is Solar: How Youth Can Drive Defossilisation through Renewable Energy Adoption

Day 2 Agenda

24 August 2023, Thursday

Time	Topics
14:00 - 15:30 HKT (GMT+8)	Solar Energy in Southeast Asia: Opportunities, Challenges, and Collaborative Solutions
	New Horizons for Solar Energy Investment: Exploring the Investor's Role in Defossilisation and Decarbonisation
	Beyond the Panels: Exploring Creative Solar Applications and Innovative Solutions
15:30 - 17:00 HKT (GMT+8)	Navigating Geopolitical Risks in the Energy Transition: Strategies for Success
	Latest Solar Technologies for Climate Mitigation and Adaptation: Innovations, Market Trends, and Applications
	How to Ensure a Just and Inclusive Transition

Day 3 Agenda

25 August 2023, Friday

Time	Topics
14:00 - 15:30 HKT (GMT+8)	<p>Mobilising Municipalities: How Urban Cities Can Drive Renewable Energy Investment</p> <hr/> <p>Mobilising Capital for Solar Energy Projects in Asia</p> <hr/> <p>A Comparison of Asian Cities' Progress Towards Carbon Neutrality through Renewable Energy and Green Finance</p>
15:30 - 17:00 HKT (GMT+8)	<p>Glasgow Climate Pact: From Egypt to COP28 - Moving Forward with Energy Transition cum Closing Remarks</p>

E. PAPER ABSTRACT

SOLAR ENERGY FOR JUST TRANSITION: CHINA'S PHOTOVOLTAIC POVERTY ALLEVIATION INITIATIVE

Dr. Kevin Lo, Hong Kong Baptist University

About the Author

Dr. Kevin Lo is Associate Professor of Geography at Hong Kong Baptist University (HKBU) and Acting Director of David C. Lam Institute for East-West Studies (LEWI). Kevin is a political and urban geographer with expertise in the field of environmental politics. He has won several major competitive grants from the Research Grants Council (RGC) of Hong Kong and has published over 100 articles in leading international journals. He is the Editor-in-Chief of the Journal of Asian Energy Studies, an international peer-reviewed journal dedicated to interdisciplinary research on all aspects of energy studies in Asia.

Abstract

Just transition draws attention to fairness and equity in the transition to clean and low-carbon energy systems. This paper discusses the role of solar energy, especially in the rural context, in achieving a just transition. It examines China's photovoltaic poverty alleviation initiative (PVPA)—a solar energy policy that aims to ease rural poverty. First-hand evidence was collected from interviews and surveys to examine the PVPA from two just transition perspectives: procedural justice and distributive justice.

Keywords: just transition, fairness, equity, clean energy systems, solar energy, rural context, China, photovoltaic poverty alleviation initiative (PVPA), solar energy policy, rural poverty, procedural justice, distributive justice.

MASS MEDIA'S STIMULATION OF INTEREST IN SOLAR ENERGY UPTAKE: EXAMINE THROUGH FEED-IN TARIFF NEWS COVERAGE IN HONG KONG

Ms. Bonnie Chen, Hong Kong Baptist University

About the Author

Bonnie Chen is a Communication PhD student at Hong Kong Baptist University. She is also a journalist, having covered ESG, financial, political, and art news. Her research interests include news on climate change, sustainability, green finance, ESG, eco-media, art and media. She was awarded by the London School of Economics of Political Science an MSc in Politics and Communication, and The University of Hong Kong a Master of Arts in Art History, and a Master of International Public Affairs, after obtaining a bachelor degree in journalism from HKBU.

Abstract

The uptake of solar energy in Hong Kong remains lukewarm compared with other metropolises despite the abundant sunlight and the implementation of the renewable energy feed-in tariff (FiT) since late 2018. While the social, political, and economic barriers have been studied, this paper addresses the issue from the under-researched mass communication perspective. It aims to examine the role that mass media could play to stimulate interests of the members of the public in solar energy through studying whether some of the journalism fundamental functions including information, education, persuasion and surveillance have been realized in news coverage of FiT.

This is a mixed-method research combining quantitative and qualitative techniques. A content analysis was conducted for a total of about 300 news articles with the keyword "FiT" published by Hong Kong newspapers from January 2019 to July 2023. Utilizing the theories of framing and hegemony to analyse the articles, this research found out that FiT appears in a majority of the articles with corporation as the source. The term FiT is seen most often in stories about the two power companies' results announcement, which no local news outlet has missed. Big corporations and institutions also received prominent coverage for their uptake of solar photovoltaic and participation in the FiT scheme. The number and size of coverage with corporate framing even exceed that of the FiT rate reduction announced in April 2022. There are a limited number of articles, comprising several commentaries and news stories framed from environmental group perspective, which explain the sluggish response, loophole, and shortcoming of the FiT scheme. Through the application of Habermasian theory of the public sphere, most of these articles fail to encourage citizen deliberation on FiT. Besides economic incentives, most articles have not painted a holistic picture of solar uptake benefits to readers. Local media portrayal of FiT reflects that they may not be able to fulfil the crucial role that they should play in the society.

By showing the drawbacks of the FiT coverage, this research has a practical implication as the findings indicate what most environmental news lack in Hong Kong. Mass media have the responsibility to mobilize the citizens to take climate action; this study suggests that science-based evidence, which has been neglected by many local news outlets, forms an essential part of environmental stories.

Keywords: solar energy, renewable energy feed-in tariff (FiT), mass communication, journalism, persuasion, surveillance, hegemony, power companies, solar photovoltaic, corporate framing, FiT rate reduction, environmental groups, Habermasian theory of the public sphere, citizen deliberation, economic incentives, science-based evidence.

INTEGRATED SELF-SUSTAINED RENEWABLE-ENERGY EXPLORER (ISEE)

Ms. Man Chit Jovian Cheung, Electrical and Mechanical Services Department (EMSD)

About the Author

Ms Jovian CHEUNG is the Senior Engineer from the Electrical and Mechanical Services Department of Hong Kong China. Ms CHEUNG is expertised in new and renewable energy R&D and policy review for energy efficiency and conservation.

Abstract

In World Energy Transitions Outlook 2022, IRENA projects that the annual solar PV addition will need to be 3.5 times that of 2020. With the global adoption of solar photovoltaic (PV) projects and cost reductions for solar power generation, solar PV is the top priority in end-use decarbonisation to reduce dependence on fossil fuels. Innovative technologies are at the frontier of accelerating the energy transaction and deploying solar energy in end-use sectors. Thus, the Electrical and Mechanical Services Department of HKSAR Government invented the Integrated Self-sustained renewable-Energy Explorer (iSEE). iSEE is developed to assess microclimate data and optimise renewable energy generation.

The iSEE is the first-of-its-kind, integrates an all-in-one tool and novel cloud-based software with powerful functionalities for assessing solar potential, managing and enhancing PV system performance. The iSEE is self-sustainable with built-in solar panels and batteries, that can be readily deployed in remote location for potential and existing solar energy systems. The iSEE serves as a digital logbook that optimises solar energy generation, promotes the wider adoption of solar energy systems, benchmarks solar energy production, and facilitates owners, operators, and end-users to visualise system performance. The iSEE originated from the concept that "Prevention is better than cure", offering preventive management of the solar energy systems to minimise system downtime and reduce power generation costs and maintenance cost, as these systems are often located remotely or at height. The overall system efficiency and solar energy generation will be increased.

The iSEE adopts emerging technologies such as digitisation, IoT sensors, big data analytics, digital twins and artificial intelligence (AI). It is a cloud-based software system that collects territory-wide solar energy system information and provides instantaneous analysis of system performance. End-users can access the data on mobile or computer at remote locations, which enables remote asset management. Academia, government and other stakeholders may access the open data for further technology development.

Three prototypes has been successful deployed at schools and university in Hong Kong. The invention has received two patents and won the Gold Prize at the 2023 Geneva International Exhibition of Invention. This paper will provide details of the features of the iSEE, the state-of-the-art technologies adopted, and the challenges tackled during its development.

Keywords: solar PV, end-use decarbonisation, fossil fuels, innovative technologies, Integrated Self-sustained renewable-Energy Explorer (iSEE), microclimate data, emerging technologies, IoT sensors, big data analytics, digital twins, cloud-based software system, remote asset management, open data, 2023 Geneva International Exhibition of Invention.

HONG KONG'S DISADVANTAGED GROUPS UNDER CLIMATE CHANGE: A CALL FOR CENTERING A JUST TRANSITION TO ENERGY POLICY

Ms. Wai Fun Ho, Solmunity and CarbonCare InnoLab

About the Author

Wai Fun Ho is a specialist in policy analysis, she is deeply passionate about environmental policy, with a particular focus on climate change and energy policy. She actively contributes to knowledge transfer through my writing across various media platforms. She has authored a book titled "Environmental Protection Policy and Green Life: Hong Kong in International Perspective," which aims to encourage introspection on both individual inadequacies and policy gaps from a global perspective. The book promotes a comprehensive approach to environmental policy that addresses personal responsibility and systemic change. Additionally, she is an active member of Solmunity, a renewable energy advocacy group working to promote solar energy in Hong Kong.

Abstract

In Hong Kong, one of the most prosperous cities in the world, neither rich nor poor could escape the impacts of climate change. Still, the government's biased policy limits the ability of disadvantaged groups to adapt and be more vulnerable at risk to the climate crisis. This article argues that climate justice should be at the heart of the government's energy policies to truly address the climate crisis and ensure a resilient city for all and highlights the need for greater ambition and action towards developing local renewable energy sources in Hong Kong.

Keywords: justice transition; energy policy; resilient city; disadvantaged groups; vulnerability in climate crisis

RACING TO RENEWABLES: COMPETITION AMONG ASIAN FINANCIAL HUBS TO FINANCE LOW-CARBON ENERGY

Mr. Kevin Yuk-shing Li, CarbonCare InnoLab

About the Author

Kevin Li has more than 20 years' experiences working with development and environmental non-governmental organisations covering the issues of water, land, climate change and poverty reduction. He also experiences in taking different roles, ranging from research, grant-making, online communications to working with partner organisations on development projects in Asia region.

Abstract

While global climate summits have set ambitious decarbonisation goals, private finance remains critical for achieving the rapid renewable energy transition needed to meet them. This paper examines the emerging competition between major Asian financial hubs—Hong Kong, Shanghai, Shenzhen, Singapore, Seoul, and Tokyo—to lead in providing capital for net zero investments. With Asia expected to drive global energy demand growth, understanding these hubs' role will be key to accelerating regional renewables deployment.

Though initiatives like GFANZ have seen Asian financial institution commitments, the region's players have been slow to join. Yet Asia has become a top climate finance destination, attracting nearly half of global investments in 2019–2020. Tracking metrics like green bonds, IPOs, venture capital, and private equity reveals intensifying competition between hubs to channel clean energy capital.

Hong Kong and Singapore have already joined the ranks of leading global green finance centers. Hong Kong frequently ranks among the top green bond listing venues, facilitated over \$5 trillion in China Stock Connect trading in 2021, and remained a preferred international fund management hub allocating regional capital. However, recent private equity investments show Singapore outpacing Hong Kong in green capital deployment.

Meanwhile, Mainland Chinese hubs like Shanghai and Shenzhen have surged up the green financing ranks, with China ranking second globally in 2021 green bond listings. Yet these hubs maintain extensive investment and trading links with regional centers like Hong Kong, suggesting potential coordination rather than competition on green finance.

Assessing cooperation or rivalry requires transparent cross-border green capital flow data – currently limited. Policy and geo-economic competition drivers also need analysis. With developed economies calling for China to contribute more climate finance, understanding Asian hub finance flows will be critical.

Overall, this paper will address: What have been the impacts of green finance tools and instruments used in these six Asian hubs on contributing to the 1.5°C climate target and de-fossilising markets by 2050, with a focus on scaling regional renewable energy?

We will argue Asia's networked hubs, with capital markets integration, regional influence, and energy transition interests, represent strategic levers for driving exponential renewable energy finance growth. But realizing their potential requires moving from isolated commitments to purposeful coordination. We will map complex green finance flows between Asian markets and the policy ecosystem shaping them to enable more targeted decarbonisation efforts.

Keywords: private finance, renewable energy transition, Asian financial hubs, net zero investments, climate finance, green bonds, IPOs, venture capital, private equity, green finance centers, green capital deployment, Mainland Chinese hubs, cross-border green capital flow, geo-economic competition, de-fossilizing markets, regional renewable energy, capital markets integration, energy transition, green finance flows, policy ecosystem, targeted decarbonisation efforts.

A SUCCESSFUL ENERGY JUST TRANSITION MODEL EMPHASISING SOCIAL VALUE

Mr. Hiu Chung Kwok, CarbonCare InnoLab / Mr. Kwan Yee Fung, CarbonCare InnoLab / Ms. Ngar Chee Lam, CarbonCare InnoLab / Ms. Hiu Wah Lai, CarbonCare InnoLab

About the Author

Hiu Chung Kwok obtained Bachelor of Social Sciences at the University of Hong Kong. He has been working in local and international non-government organisations for more than 10 years with rich experiences in different social issues. He joined CarbonCare InnoLab in 2022, focusing on promotion of CarbonCare Label and corporate social responsibility. He also participated in COP27 as an NGO observer.

Kwan Yee Fung previously worked as a solar system contractor, gained valuable experience and expertise in the field of PV system. Angus joined CarbonCare Innolab as a Technical Officer in 2022. Participating in the HKJC SolarCare Programme, he helps CCIL of building solar systems for other NGOs.

Ngar Chee Lam studied at Simon Fraser University, majored in Communication. After graduation, she worked as a marketing/PR coordinator in a publishing company. She has rich experience in organising various types of activities. Right after she joined CarbonCare InnoLab(CCIL) in 2016, she focused on the work of Jockey Club CarbonCare Open Innovation Lab (JC COIL) and gained experience in facilitation skills. She now focuses on community engagement of Jockey Club SolarCare Programme. She loves reading and writing, and is responsible for publishing CCIL's newsletter.

Hui Wah Lai majored in Political Philosophy, Public Administration and Management. She has joined the District Councillor's Office and participated in public policymaking. During her time partnering with the District Councillor, she implemented the Strategic Planning of environmental protection in South Horizons. Along with her interest in creative media, specializing in video and graphic design. Kylie came onboard with CarbonCare InnoLab in 2021, focusing on the Jockey Club SolarCare Programme. Her vision and mission are to make the influence through creative media in the aspect of Climate Action.

Abstract

With the urgency of climate change emphasized by global temperature increases, Hong Kong's renewable energy production is currently only 1%, making the shift to renewable sources imperative. Given its unique geography, solar energy presents a significant opportunity for Hong Kong. The SolarCare Programme, implemented by CarbonCare InnoLab (CCIL) in Hong Kong, addresses the city's limited space and high-rise buildings by integrating social and environmental aspects into the transition to clean energy. By capitalizing the Fit-in Tariff (FiT) policy and mature solar technology, CCIL targets the civil society sector, which holds immense potential for renewable energy development. The Programme focuses on NGOs, recognizing welfare efforts and creating a positive impact by harnessing the power of NGOs and emphasizing sustainability.

The Programme aims to create a model that addresses environmental and social challenges in the energy transition and ensures a just transition process. It generates economic value, reduces CO₂ emissions, supports the NGOs' operations during the pandemic, and enhances the services they provide. Notably, the solar PV systems of the Programme outperform Hong Kong's overall FiT growth rate, contributing to the increased adoption of renewable energy. The methodology includes survey sampling, quantitative and qualitative data analysis, and experimental case studies to evaluate the effectiveness of the Programme.

Overall, the SolarCare Programme successfully achieves its objectives of addressing environmental and social challenges, promoting solar energy adoption, and contributing to the energy transition in Hong Kong. The Programme also fostered social value by generating income for NGOs and providing affordable energy solutions, thus contributing to the broader energy transition efforts in Hong Kong.

Keywords: climate change, solar energy, SolarCare Programme, CarbonCare InnoLab, Fit-in Tariff (FiT), civil society sector, energy just transition, economic value, solar PV systems, environmental challenges, social challenges, social value, affordable energy solutions.

F. ANNEX

Asia Solar Energy for Climate Change Conference website



<https://www.ccinnolab.org/ASECCC>

Watch on-demand video link



<https://www.ccinnolab.org/asecccondemand>

G. ACKNOWLEDGEMENT



Jockey Club SolarCare Programme

Hong Kong Jockey Club Charities Trust, it aspires to develop a community service platform that accelerates the application of solar energy within the local community. The programme believes by connecting various stakeholders like green groups, NGOs, government departments, power companies, and renewable energy experts to the general public, Hong Kong would be one step closer to the global level of renewable energy development to build a Zero Carbon Hong Kong in the near future.

Website:

<https://www.ccinnolab.org/en/JockeyClubSolarCareProgramme>



Organiser



Funded by



The Hong Kong Jockey Club
Charities Trust