

**BEC EnviroSeries Conference**

**23 November 2018**

**The Making of a Low Carbon Hong Kong:  
Business Leadership and Best Practices**

**Post Conference Report**  
Published on 24 December 2018



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## I. Introduction

The Hong Kong SAR Government is in the process of developing Hong Kong's long-term decarbonisation strategy up to 2050 through stakeholder engagement and public consultation in early 2019. Being a key player in climate mitigation, the business sector should not be left out of the picture in the contribution towards a low carbon Hong Kong.

Many firms, and even industries, have taken bold steps to reduce their own carbon emissions already. The latest BEC EnviroSeries conference *The Making of a Low Carbon Hong Kong: Business Leadership and Best Practices* was formulated to be a platform for business and government leaders to share and exchange their experiences, mindsets, and solutions regarding climate change. BEC hopes that the conference gave all attendees a better understanding of how their respective organisations can do their part to reduce carbon emissions, as well as some specific, practical steps to take towards reaching a low carbon economy.

Some primary themes and categories took shape from the discussions at the conference:

- *Technology*: One avenue companies can take is to look to new technological innovations. Such innovations greatly boost the efficiency of business operations, and in the process help firms reduce their carbon emissions.
- *Collaboration*: It goes without saying that businesses must work to reduce their individual emissions and carbon footprints. On top of this, numerous speakers highlighted diverse and innovative coalitions of stakeholders that helped their members synergise and further their sustainability efforts.
- *Green finance*: In addition to demand-side actions in respect of their own operations, the banking and finance sector is also developing mechanisms and products that facilitate increased investment in sustainable business development and carbon footprint reductions. A holistic approach is important in creating a low carbon Hong Kong overall.
- *Responsibility*: It is the responsibility of businesses to decarbonise regardless of what governments and other businesses do. Given the economic weight and influence of the private sector, no effective climate action can occur without it.

## Highlights from the Panel Discussions

The primary messages and themes emerged from the presentations, discussions, and questions answered by conference speakers, are summarised below.

### Keynote Presentations and Panel 1

- Climate change mitigation is not and should not solely be the responsibility of governments. The private sector is also taking up the responsibility in climate actions – by company or even by sector – locally, nationally, and internationally.
- There is no trade-off between economic growth and environmental sustainability; in fact, sustainable companies perform better, and long-term economic growth is impossible without climate action.
- Increased efficiency from innovation and technology not only brings environmental benefits but also monetary savings. This should help small and medium enterprises build a business case for environmental sustainability, as they face increasing requirements as part of the value chain of larger companies.

### Panel 2

- Climate change mitigation, adaptation, and resilience open up opportunities for investment and collaborations. However, regulatory changes and working with governments would also be necessary – as an example, panellists recommended Hong Kong to set up a form of carbon pricing as a driver to for deep decarbonisation by 2050.
- Hong Kong's small and tight community enables greater exchange and collaboration between the government, the business community, and the academia.

### Panel 3

- Setting a carbon reduction target, absolute or intensity-based, is an important driver of change. It creates an opportunity to engage the entire company, and even external stakeholders, to reflect on their sustainability strategy and actions.
- Internal stretch targets can be set to motivate behavioural change, as well as encourage innovation and creativity.
- Some companies in Hong Kong may not be in the position of setting a Science-based Target, but should begin the target-setting journey without delay.

## II. Event Summary

### Programme Rundown

Time	Topics
9:00 a.m.	Registration
9:30 a.m.	<b>Welcome Remarks</b> Mr Adam Koo, CEO, BEC
9:40 a.m.	<b>Guest of Honour and Keynote Speech</b> Mr Wong Kam-sing, GBS, JP, Secretary for the Environment, HKSAR Government
9:55 a.m.	<b>A Low Carbon Hong Kong – An Opportunity for HK businesses to join a new global business paradigm</b> Mr Shailesh Sreedharan, Director of Global Operations, World Resources Institute
10:20 a.m.	<b>China’s Market-based Climate Policy</b> Dr Zhang Jian-yu, Vice President, Environmental Defense Fund
<b>Plenary 1: Enabling decarbonisation through innovation, investment and integrated solutions</b> Moderator: Dr Thomas Tang, Sustainability Consultant	
11:05 a.m.	<b>Decarbonise smarter, not harder</b> Mr Sebastian-Hartmut Schenk, Digital Champion Asia Pacific, Head of BASF Management Consulting Asia Pacific
	<b>Financing investment in green buildings</b> Mr Jonathan Drew, Managing Director in Infrastructure, Real Estate Group, The Hong Kong and Shanghai Banking Corporation Ltd
	<b>Driving Decarbonisation with Connected City Solutions</b> Mr Keith Cheng, Head of Hong Kong Digitalisation Hub, MindSphere Application Centre – City, Siemens Ltd
	<b>Decarbonisation through solutions from a power/utility perspective</b> Mr T. K. Chiang, Managing Director, CLP Power Hong Kong Ltd
	<b>Panel discussion</b>

<b>Plenary 2: Global carbon action from the business sector</b>	
Moderator: Dr Nadira Lamrad, Assistant Director – Sustainability & ESG Advisory, BEC	
1:50 p.m.	<b>Environmental disclosure makes sound business sense: A closer look at investors’ interest in corporate environmental stewardship</b> Ms Suzin Ahn, Associate Director, CDP Hong Kong
	<b>Business action and climate leadership</b> Mr Yuming Hui, Greater China Director, The Climate Group
	<b>Implementing TCFD recommendations: Updates from the UN Pilot</b> Dr Calvin Kwan, General Manager, Sustainability, Link Asset Management Ltd
	<b>Panel discussion</b>
<b>Plenary 3: Setting targets to drive change: sharing from business leaders</b>	
Moderator: Dr Jeanne Ng, Director - CLP Research Institute, CLP Holdings Ltd	
3:40 p.m.	<b>5 panellists in the format of panel discussion</b> 1. Mr Mike Kilburn, Assistant General Manager, Sustainability, Airport Authority Hong Kong 2. Mr Guillaume Schoebel, Senior Vice President – Sustainability Strategy, Schneider Electric 3. Ms Amie Shuttleworth, Global Director of Sustainability, Cundall 4. Dr Raymond Yau, General Manager, Technical Services & Sustainable Development, Swire Properties Ltd 5. Mr Andy Yeung, Director and Head of Technical Services & Sustainability, Hongkong Land Ltd
	<b>Closing Remarks</b> Mr Richard Lancaster, BEC Chairman and CEO of CLP Holdings Limited
4:55 p.m.	

## III. Conference Opening

### Opening Remarks

**Mr Adam Koo**

CEO, BEC

Mr Koo pointed out to the audience the timeliness of the conference – the destruction caused by Typhoon Mangkhut only months ago, and the United Nations Intergovernmental Panel on Climate Change (IPCC)'s special report released in October that warned policymakers to limit global warming to 1.5°C rather than 2°C.

He anticipated that the sharing and discussion during this conference will contribute immensely to future policymaking related to setting carbon reduction targets, planning for climate resilience, and promoting joined-up climate actions and strategies between different sectors in Hong Kong.

### Guest of Honour and Keynote Speech

**Mr Wong Kam-sing, GBS, JP,**

Secretary for the Environment, HKSAR Government

Secretary Wong started his presentation with Hong Kong's carbon emission statistics. From data collected in 2014, Hong Kong's per capita carbon emissions was 6.2 tonnes. Hong Kong's carbon emissions composition is as follows: 67% from electricity, with transport covering 18%, and waste and others making up the remaining 15%.

He also highlighted the 4 key areas that the government is targeting to reduce Hong Kong's carbon emissions.

- *Clean Energy*: two measures the government has worked with the power companies and introduced in this regard are the Feed-in Tariff (FiT) and the Renewable Energy Certificate (REC).
- *Green Building*: including laws and regulations, labelling schemes, tax concessions, technology advancements, carbon/energy audits, retrofitting, green building certifications, and publicity campaigns.

- *Green Transport*: the government will tighten emission standards for motorcycles, continue encouraging the use of new energy efficient vehicles, and will consider ceasing the first registration of diesel private cars. In addition, the government plans on increasing control of diesel commercial vehicles, subsidising franchised bus company trials for selective catalytic reduction systems, and reviewing the scope of the Pilot Green Transport Fund.
- *Waste Less*: the main initiative under this category is municipal solid waste charging, which the Secretary has strongly advocated for and hopes to gain support from all relevant stakeholders.



Secretary Wong also reiterated the importance of building partnership and leadership together with the Hong Kong society, for example through the 4Ts Charter (timeline, transparency, targets, together) as a framework for committing to climate action. He remains hopeful that Hong Kong can reduce its absolute carbon emissions by 26% to 36% and carbon intensity by 65% to 70% by 2030 compared to 2005 levels.



## A Low Carbon Hong Kong – An Opportunity for HK businesses to join a new global business paradigm

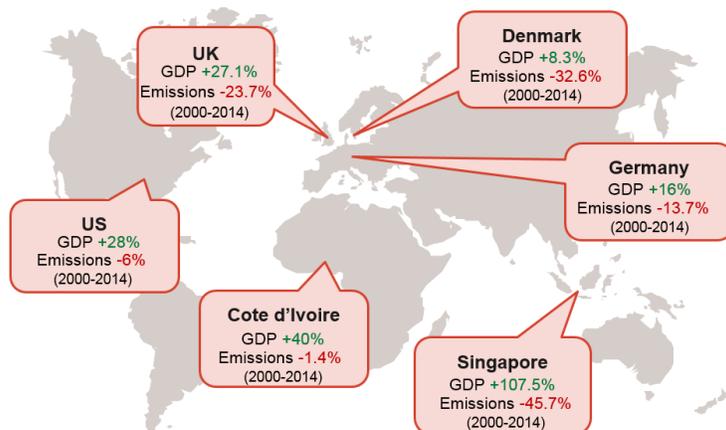
Mr Shailesh Sreedharan

Director of Global Operations, World Resources Institute

Mr Sreedharan began by laying out the situation of the world today – what he referred to as, “the best of times, the worst of times.” On the one hand, global GDP grew by 3.7%, the broadest growth since 2010, while the poverty rate dropped to the lowest in history, with 38 million people climbing above the poverty line. Yet, on the other hand, 2017 saw the hottest non-El Niño on record, a record number of hurricanes (causing US\$135 billion in insurance pay-outs), and a new high for global tree cover loss at almost 30 million hectares. Human activities have already caused 1°C of warming above pre-industrial levels, while existing nationally determined contributions (NDCs) will still result in 2.7 to 3.7°C of warming above pre-industrial levels if alternative actions are not taken.

After showing the well-known risks of inaction on climate change, Mr Sreedharan argued that despite positive economic trends correlating with negative environmental trends, economic growth and environmental action are in fact possible together – not only are they possible, long-term economic growth will be impossible without climate action. Mr Sreedharan gave several examples of the 30+ countries that have reduced their emissions while also seeing economic growth.

### SOME OF THE 30+ COUNTRIES



Source: Carbon Brief (2016) The 35 Countries Cutting the Link Between Economic Growth and Emissions.

WORLD RESOURCES INSTITUTE

Mr Sreedharan showcased some of the countries leading the charge on climate action, including China, India, Indonesia, Ireland, Norway, and others. More countries are also implementing carbon pricing schemes.

Yet, governments cannot be, and are no longer, the only leaders on the world stage – businesses have begun to take it upon themselves to reduce their emissions and become more sustainable. Environmental risks pose an increasingly serious threat to the private sector, so it is in the best interests of businesses to act now. On both the national and international stages, finance sectors have begun implementing green bonds to incentivise sustainable business development and encouraging more climate-related financial disclosures. Mr Sreedharan showed that low carbon, sustainable companies have actually performed better than conventional firms in recent years, and investors have acted accordingly. Fossil fuel companies like Exxon have also begun to make more environmental commitments.

## SUSTAINABLE COMPANIES PERFORM BETTER

**6%**  
higher returns  
over past 4 years

**STOXX® Low Carbon Indices provide easy new way to climate-friendly and attractive returns**



This year CDP collaborated with STOXX® and South

Key benefits for investors:

Source: New Climate Economy, adapted from CDP, 2014.

WORLD RESOURCES INSTITUTE

Alongside individual commitments, more innovative and diverse coalitions of stakeholders are rising up to meet the climate challenge. Groups like the Carbon Pricing Leadership Coalition and the Building Efficiency Accelerator contain both private firms and national and subnational governments.

Mr Sreedharan concluded by highlighting some examples of innovative and sustainable business models. Firms that implement science-based targets, in effect aligning their business development with scientific calculations on carbon emissions, are growing in number, with small and medium enterprises containing huge, untapped potential for climate action.

## China’s Market-based Climate Policy

Dr Zhang Jian-yu

Vice President, Environmental Defense Fund

Dr Zhang presented about how the Chinese government is using market mechanisms to combat climate change. He first laid out China’s carbon emission reduction targets: to reduce carbon intensity by 40% to 45% by 2020 and 60% to 65% by 2030, compared to 2005, and to peak greenhouse gas (GHG) emissions in 2030. To reach these targets, the Chinese government has implemented a number of policy schemes.

One scheme is carbon pricing and trading, which has pilots in Shenzhen, Guangdong and other cities and provinces. Carbon markets in China are substantial and they continue to grow. Dr Zhang also mentioned that the monitor, reporting and verification (MRV) work has already started in 2013 for 8 major industry sectors – power, iron and steel, petrochemical, nonferrous metal, chemical, papermaking, building material, and aviation – laying the groundwork for the developing national emissions trading system.

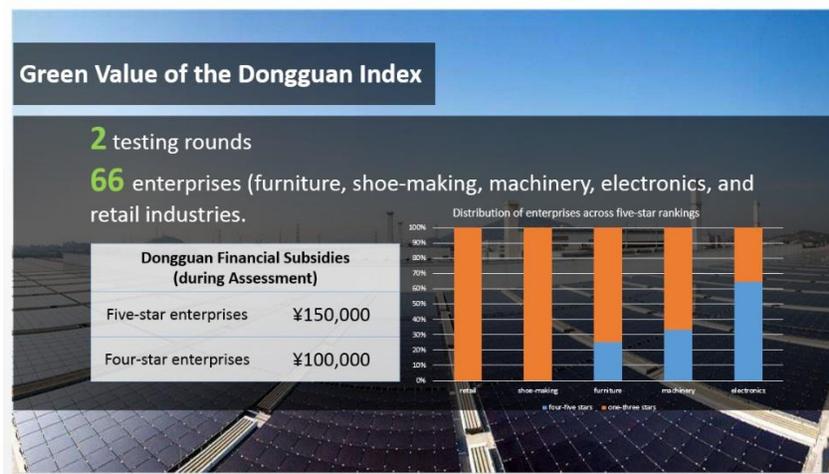
### “1 + 3 + 4” Framework



Dr Zhang then turned the audience's attention to the Greater Bay Area (GBA) and its environmental challenges, pointing out that Guangzhou and Hong Kong are among the world's top 10 cities with the highest carbon footprints. What's more, there is uncertainty that either can reach their carbon reduction trajectories.

The goal of the EDF here is to help build a green and low-carbon GBA through the application of new technologies, an integrated air pollution/GHG management system, and purchasing power.

Lastly, Dr Zhang talked about the importance of green supply chain innovations in allowing companies to move toward carbon neutrality. The Chinese government has been developing policy schemes to facilitate green supply chain development since 2010 through several government agencies. EDF also developed a Green Supply Chain Evaluation Criteria, otherwise known as the Dongguan Index, to attract investment into the industrial sector with quality data endorsed by local governments and certified by third-party authorities. The index now includes 66 enterprises.



## IV. Plenary 1: Enabling decarbonisation through innovation, investment and integrated solutions

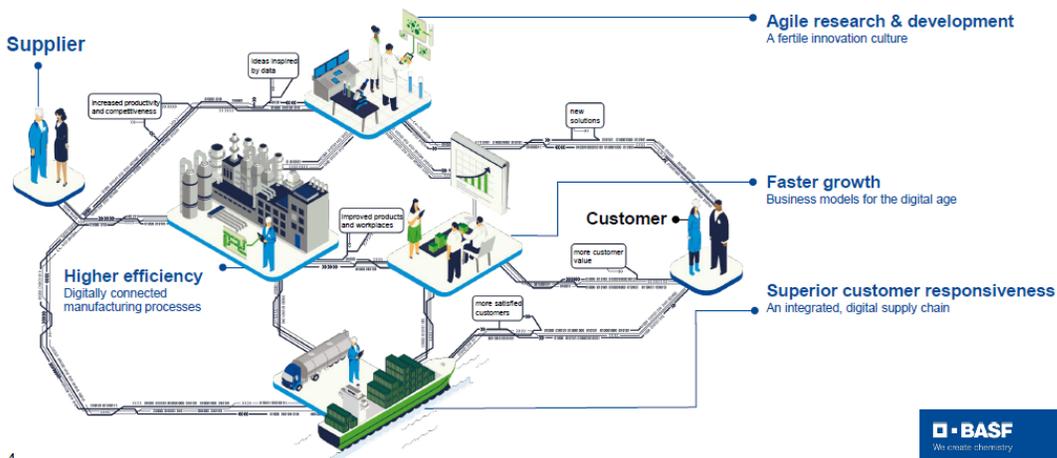
### Decarbonise Smarter, Not Harder

**Mr Sebastian-Hartmut Schenk**

Digital Champion Asia Pacific, Head of BASF Management Consulting Asia Pacific

Mr Schenk's remarks centred on the importance of digitisation and integrated technologies for sustainability, explaining that digitisation is a key enabler for sustainability. BASF approaches digitisation holistically so as to make the most efficient use of all types of raw materials and all processes. This holistic digitalisation approach integrates improved manufacturing efficiency, flexible research and development, more digitally-based business models, and superior customer responsiveness.

### Digitalization is a key enabler for sustainability – we approach it holistically



More specific aspects of a holistically digitalised business which Mr Schenk highlighted included smart supply chains and smart manufacturing, each with case studies to highlight their importance.

- Smart supply chain:

- Automated guided vehicles: driverless cars save companies both time and money. These vehicles are integrated with large tank containers and an automated tank storage facility.
- Smart pallets also improve visibility along the supply chain while improving information transparency, real-time stock value, and a number of other benefits.
- Smart manufacturing: BASF is optimising manufacturing efficiency in *Verbund* sites, or large-scale production centres, via predictive maintenance, process optimization and vertical integration. Applications including augmented reality, and other strategies enable by big data are in differing stages of development and implementation at BASF.

**Digital technologies help us optimizing our Verbund for higher efficiency in manufacturing processes**



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Mr Schenk also showcased one example of a product which enables decarbonisation: Green Sense Concrete. The product is a concrete admixture that allows builders to substitute recycled aggregate – a waste product – for some of the high-carbon concrete in a building. This solves two problems: reducing construction waste and lowering the overall carbon footprint of a building. This product, like many others, demonstrates the dual environmental and business benefits of eco-friendly innovations.

## Financing investment in green buildings

**Mr Jonathan Drew**

Managing Director in Infrastructure, Real Estate Group, The Hong Kong and Shanghai Banking Corporation Ltd

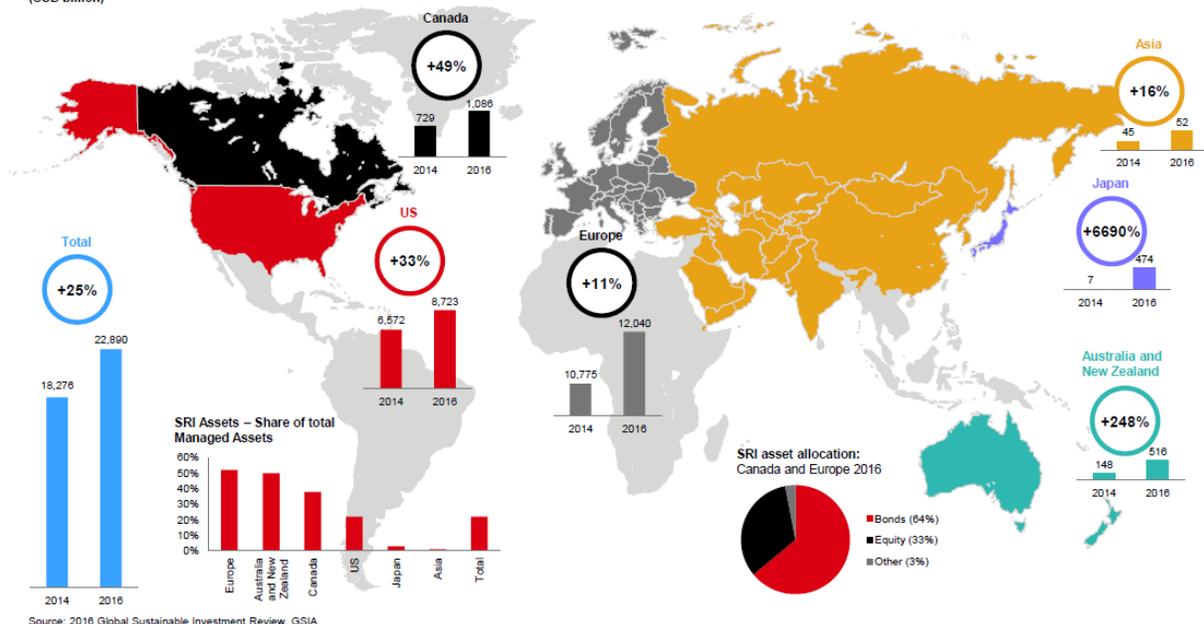
Mr Drew spoke about the financial sector's role in facilitating sustainable business development and carbon reduction, specifically relating to the investment in green buildings.

Given the severity of climate change and the hopeful path to a low carbon future, an increasing number of investors are adhering to the concept of environmentally responsible investment. The number of investor signatories to the United Nations' Principles of Responsible Investment has risen from around 500 in 2010 to more than 2000 in 2018 with combined assets under management in excess of USD 80 trillion. The picture of a more environmentally-minded financial world becomes even clearer when coupled with the fact that sustainable investment grew 25% to USD 23 trillion from 2014 to 2016.

### Growing investor appetite

Sustainable Investment Grew 25% to USD 23 trillion in 2014-2016

Growth of sustainable and responsible investing assets by region  
(USD billion)

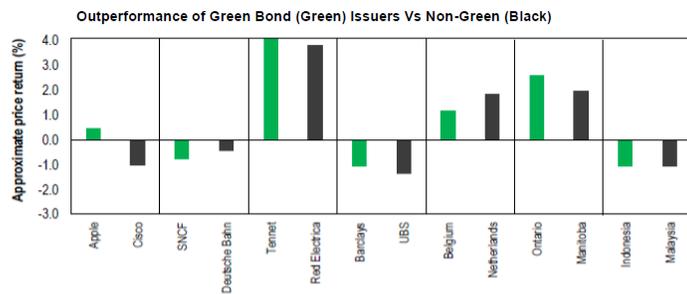


Mr Drew summarised the types of, and corresponding guidelines for sustainable financing products, including The Green Bond Principles, The Social Bond Principles, The Sustainability Bond Guidelines, and the Green Loan Principles. There are currently no guidelines for social and sustainability loans.

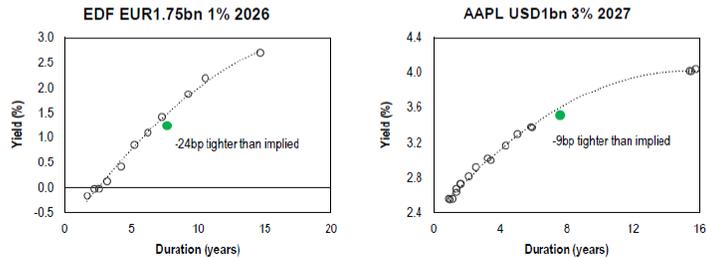
Mr Drew showed the importance and opportunities presented by sustainability financing. Not only are mechanisms for sustainability financing important for the world and Hong Kong to reach a low carbon future and prevent significant warming; they may also outperform conventional forms of financing. Green bond issuers outperformed non-green issuers and they are less volatile than non-green bonds. Likewise, data show that green indices have been outperforming their non-green counterparts.

**Pricing Impacts**

**Green Issuers Outperform**



**Green Bonds  
Higher Price, Less Volatile**



Mr Drew concluded his presentation by stating that everyone in the room, in some form or another, is an asset owner. He encouraged participants to be a part of sustainable investing, for example starting with their own pension funds and initiate the discussion with fund managers.

## Driving Decarbonisation with Connected City Solutions

### Mr Keith Cheng

Head of Hong Kong Digitalisation Hub, MindSphere Application Centre – City, Siemens Ltd

Before turning his focus to connected cities, Mr Cheng began by noting the importance of businesses taking it upon themselves to decarbonise across all operations, with Siemens being an example of this by planning to reach carbon neutrality by 2030.

According to Mr Cheng, cities must electrify, automate, and digitalise their primary infrastructure systems to decarbonise. He laid out a number of themes and practical technologies that cities can make use of, and some of which Siemens has already done for Hong Kong. This is also reflected in The Smart City Blueprint for Hong Kong which laid out a vision for autonomous vehicles, intelligent transport systems, smart grids, smart poles, green and intelligent buildings, smart community healthcare, e-bus fleets, and better pollution management.

The main focus of Siemens' approach towards a smart city is connectivity, which drives all solutions and leads to an increasingly open, transparent, and effective IoT ecosystem.

### Our approach towards a smart city

**SIEMENS**  
*Ingenuity for Life*

#### Understand your city



##### Single Point of Operation

- Support and improve operator workflows and automation
- Improve operational consistency
- Integrate data from various sources

#### Improve your infrastructure



##### Modernize infrastructure

- Siemens systems and maintenance reduce lifecycle costs up to 30%
- Improved data collection → better prediction and planning
- Reduce emissions and energy consumption

#### Establish an open IoT eco-system



##### Create new value add

- Increase performance (data analytics, machine learning, ...)
- Expand system capability (c2x, block chain, ...)
- Collaborate across industries

Connectivity

Connectivity

Connectivity

Some of the specific solutions presented by Mr Cheng included the Embedded City Box, Siemens Smart Lamppost, Real Time Environment Monitoring, Short Term Emission Forecasting, and Advanced Video Analytics for Illegal Parking Detection.

## Connected City Solutions: Embedded City Box



**City Challenges**

- Traffic congestion, air pollution, public safety, power and energy consumption...
- Lack of fundamental data for smart city initiative.
- The foundation of connected city solutions.

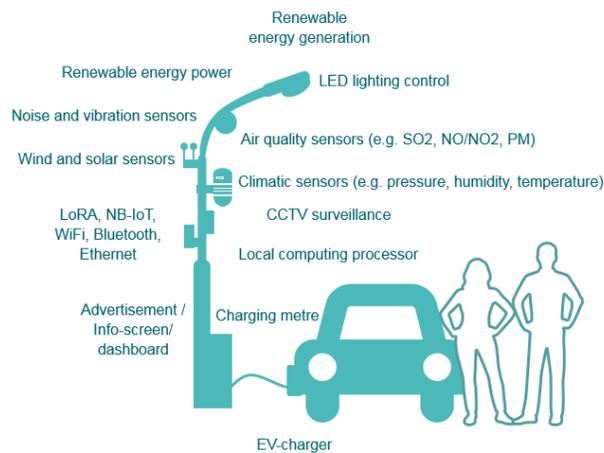
**Connected city solutions through ECB**

- Built-in intelligent sensors with flexibility for expansion.
- Collecting wide range of data with flexibility.
- 4G data transmission to cloud-based data analytics platform.

**Benefits**

- All-in-one device for smart city data collection.
- Data visualisation for more efficient city decision making, e.g. city planning.
- Local data processing capability.

## Siemens Smart Lamppost Solution Features



- Solid, rugged and modularised, highly integrated design for easy assembly and installation
- A wide range of sensing devices (including CCTV) with flexibility to address different needs
- Powerful edge computing capability reduces data transmission costs
- Guaranteed data privacy by only sending the processed data back to the backend storage
- Embedded data analytics for on-post dashboard applications.
- Real time data visualisation and forecasts for city decision making
- Cloud based IoT open platform as the backend system supporting more advanced analytics
- Open APIs for calls from 3<sup>rd</sup> party applications
- Enables cross domain data and knowledge sharing

Mr Cheng ended by emphasising smart city solutions would be a part of the mechanism for Hong Kong to reach carbon neutrality by 2050.

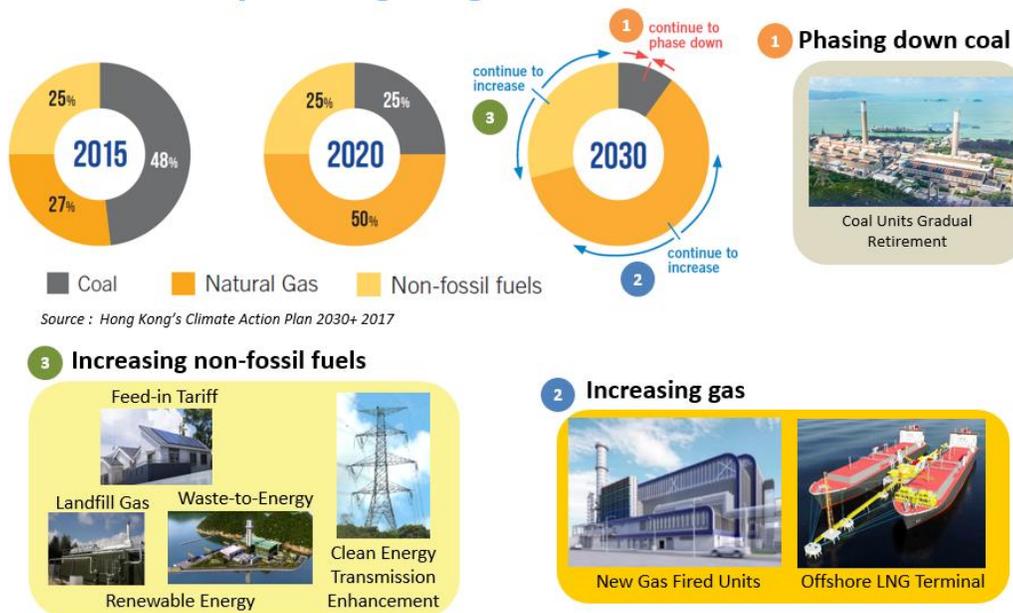
# The Making of a Low Carbon Hong Kong: Solutions from a Power Utility Perspective

Mr T. K. Chiang

Managing Director, CLP Power Hong Kong Ltd

Mr Chiang began with an overview of Hong Kong’s “Carbon Journey”, showcasing the city’s decreasing reliance on coal, and transition to using more natural gas and non-fossil fuels, both of which emit less carbon than coal.

## Carbon Journey of Hong Kong



Source : Hong Kong's Climate Action Plan 2030+ 2017

Hong Kong now needs to draw up a long-term decarbonisation strategy up to 2050



A deeper look into Hong Kong’s greenhouse gas emissions presents both opportunities and challenges, according to Mr Chiang: if Hong Kong replaced all of its coal with gas, with other sectors doing their part, Hong Kong’s emissions would be around 55% lower than in 2005. However, if other sectors fail to decarbonise, then their share of emissions will grow quickly.

CLP’s current electricity generation is a mix of coal, gas, nuclear, and renewable energy. While coal and gas generation plants are located in Hong Kong, nuclear energy is

imported from Daya Bay over a CLP direct connection. In order to reduce its emissions, Hong Kong needs to decarbonise its electricity supply, among other things; however, there is only limited local land available for renewable energy, therefore Hong Kong must cooperate with its neighbours if a higher level of carbon reduction is desired.

As a whole, one must be careful in such a decarbonisation effort given the nature of electric power. There are several prerequisites for importing zero carbon power from the mainland, for example, construction time needed for such a complex cross-border infrastructure, contracting for dedicated energy sources to acquire favourable terms for Hong Kong, and the possible competition for zero carbon energy supplies with neighbouring mainland cities.

Hong Kong is especially reliant on electric power, and a balanced system in which electricity generation has to meet electricity demand on a second-by-second basis will be needed to support its world-class reliability.

### Hong Kong Requires Extra High Level of Electricity Reliability



**50%**  
or more of the population live or work above the 15<sup>th</sup> floor

**66,300**  
lifts in use every day

**5.8million**

passenger trips every day on electrically powered transport

CLP is already taking steps to replace coal with more gas, but there is also the possibility of replacing the remaining coal plants with lower carbon alternatives in the 2030's, for which a decision must be made soon with both supply reliability and sustainability in mind.

Renewable energy production tends to vary within the day and in the long term and it is not yet easy to store, so a variety of zero carbon sources need to be considered to maintain reliability. Examples of zero carbon sources include wind and solar in Guangdong or elsewhere, hydro from Yunnan, and nuclear from Guangdong; which can be supplemented by suitable local generation.

Lastly, Mr Chiang reminded the audience not to overlook the carbon reduction potential from demand side management.

## Last but not Least ..... Demand Side Management also Reduces Carbon

**Financial support for building retrofit / retro-commissioning**

**Low-carbon energy use conversion support**

**Smart Meters empowering customers to save energy**

**Demand Response to reduce peak demand and defer capacity expansion**

**Energy audit and advisory service for customers**

- Electricity will be the most important energy source in a low-carbon city
- Demand side efficiency and flexibility facilitate effective decarbonisation

## V. Panel Discussion 1

Moderated by Dr Thomas Tang,  
Sustainability Consultant



### On the Role of the Finance Sector, Government, and Power Companies

- The finance sector is a key mobiliser of sustainable investment processes, and the finance raising process is a key opportunity for corporates to raise awareness of their sustainable activities.
- Government's role in regulating carbon emissions depends on the ambition and the degree of carbon reductions the Hong Kong society envisages.
- Real-time data will be needed to evaluate the government's performance on what policies are delivering impacts and where the impacts are.
- For renewable energy, energy storage currently is not cost effective and only economically feasible on a small scale.
- The private sector should not sit around and wait for the government to take action, but to take actions upon themselves regardless.

### Influencing Actions in SMEs

- Smart and innovative technologies help enhance efficiency, which actually brings monetary value in addition to environmental benefits.
- Large corporations are also demanding sustainability in their value chains – SMEs involved in their upstream and downstream activities.
- The power companies, under the Scheme of Control Agreements, also have existing funds to assist building owners in carrying out improvement projects.

## **VI. Plenary 2: Global carbon action from the business sector**

### **Environmental Disclosure Makes Sound Business Sense: Making a Case for Corporate Leadership against Climate Change**

**Ms Suzin Ahn**

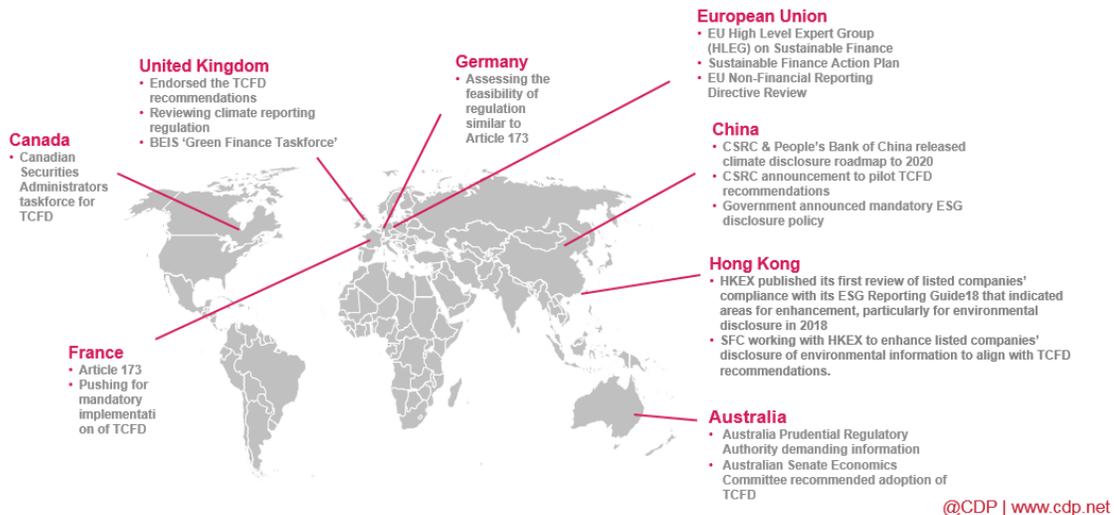
Associate Director, CDP Hong Kong

Ms Ahn began with an overview of CDP Stakeholders and Programmes. CDP is an organisation that facilitates the global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts; resulting in enhanced engagement on environmental issues globally through disclosures. Ms Ahn pointed to the robust growth the CDP has seen since its inception in 2003 to 2017. The number of investor signatories has grown to more than 800 and the number of disclosing companies to more than 6,000. In 2018, CDP has engaged with over 650 investors representing US\$87 trillion in assets, over 110 supply chain members with over US\$3 trillion in purchasing power. In addition, over 7,000 companies responded through CDP, over 620 cities disclosed their environmental information, and over 120 states and regions measured their environmental impacts. CDP holds the most comprehensive collection of self-reported environmental data out of any organisation in the world. This data is utilised by cities, companies, and investors acting to move towards a low-carbon economy.

Ms Ahn contended that environmental disclosures, among other things, makes sound business sense and supports better financial returns. She supported this by pointing to data collected by STOXX Global Climate Change Leaders Index and academic evidence indicating moving towards low-carbon performance is positively correlated with financial performance. She also concluded there is growing evidence, amongst the business and academic community, that organisations no longer need to sacrifice returns for the environment. Similar to Mr Drew's earlier presentation, Ms Ahn pointed out that investor appetite for sustainable or green investing is also growing. A survey from Morgan Stanley indicated 84% of investors are pursuing or considering to pursue ESG integration in processes and 60% of those began doing so in the last 4 years. Climate change is

becoming a leading investment theme – 31% seek to adapt to/mitigate the effects of a changing climate. Global sustainable investment is also growing – in 2016 the global sustainable investment reached 22.89 trillion. Ms Ahn also reminded the audience that federal governments and global regulators are increasingly requesting environmental disclosures.

## Global Regulators Requesting Environmental Disclosure

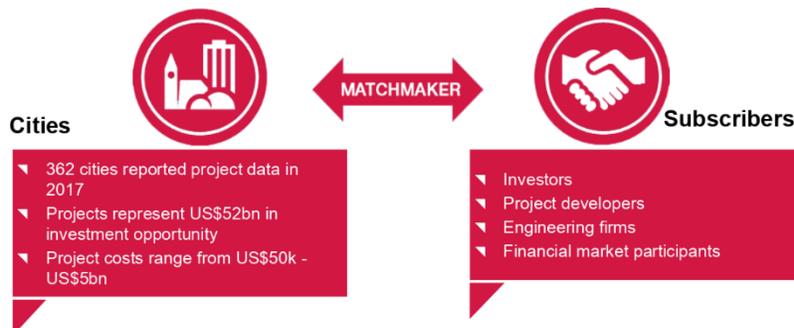


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Ms Ahn spoke positively about non-state actors forming coalitions, for example, the We Are Still In declaration and the Net Zero Carbon Buildings Commitment. She also briefly highlighted a specific CDP initiative, the Matchmaker, which aims to ensure cities have access to private capital and services to achieve their climate goals.

## CDP Matchmaker

Showcasing urban climate projects to match private sector interests



### Matchmaker Mission

- Ensure cities have sufficient access to the private capital and services they need to meet ambitious climate goals
- Advance the implementation of climate resilient infrastructure through data disclosure and stakeholder consultation

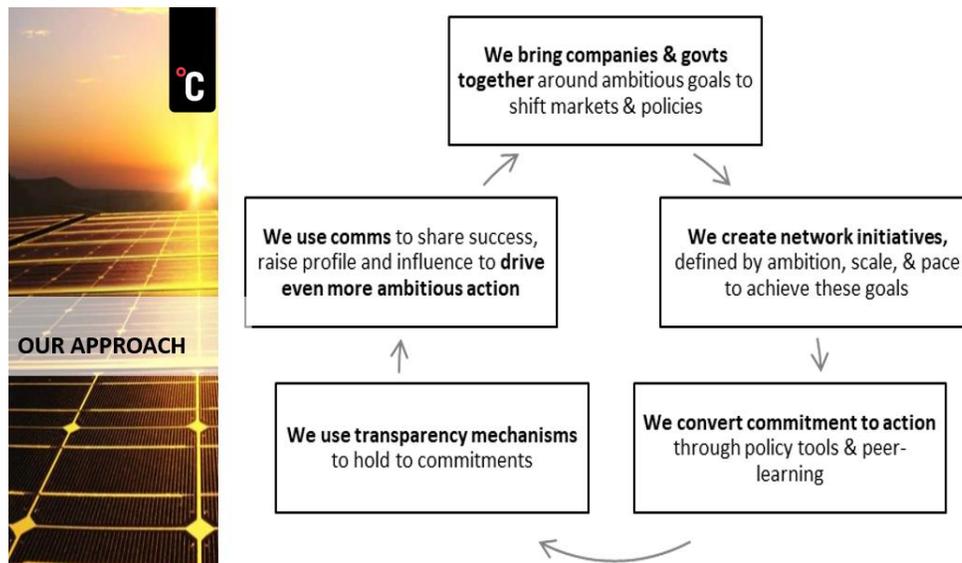
Ms Ahn concluded with optimistic remarks about increased corporate interest and engagement with regards to climate-related disclosures and the overwhelming increase in climate leadership around the globe.

## Business Action and Climate Leadership

**Mr Yuming Hui**

Greater China Director, The Climate Group

Mr Hui began his presentation with a short description of The Climate Group's Mission, which is to accelerate climate action to achieve a world of under 1.5°C of global warming above pre-industrial levels. The Climate Group aims to achieve this by bringing together powerful networks of businesses and governments that shift global markets and policies, and this includes a variety of initiatives like the Climate Week NYC, Under2 Coalition, RE100, EP100, and EV100.



Mr Hui summarised the various initiatives The Climate Group is leading. He directed attention to the Under2 Coalition that represents 43% of the global economy, 1.3 billion people, and US\$34 Trillion GDP with over 220 state and regional governments. The governments in the Under 2° Coalition have committed to remove 4.9-5.2 gigatons of CO<sub>2</sub> emissions per year by 2030.

The RE100 represents a network of organisations' commitment to 100% renewable electricity across their global operations. EP100 represents a variety of global organisation's commitment to double energy productivity within 25 years, plus 2 new pathways through energy management systems and Net-Zero Carbon Buildings. EV100 represents an organisation's commitment to transition to electric vehicles and/or adequate charging facilities at their premises by 2030.



Mr Hui redirected attention to the Asia-Pacific region and concluded his presentation with advice for Hong Kong. He stated that joining the Under2 Coalition is one of the strategic options for HKSAR government, which will allow it to join hands with over 220 international counterparts of local jurisdictions and describes a variety of strategies and opportunities available not only to local companies, but also for the wider Greater Bay Area (GBA).

The GBA strategy predicts a mix of financial, R&D, international trade, new/conventional manufacturing, and tourism/leisure firms. Mr Hui listed a few “long-hanging fruit” examples for GBA:

- Changes that can be made to ports include more stringent regulations on ships and green port services (such as use of electric vehicles).
- Changes that can be made to new & conventional manufacturing (green supply chain) are: embracing low-carbon manufacturing, decarbonising conventional

manufacturing suppliers, requiring government push and brands/company initiatives, and ramping up corporate target setting through RE100/EP100/EV100 to help meet wider GBA objective and accelerate HK long-term decarbonisation strategies.

## **Implementing TCFD Recommendations: Updates from the UN Pilot**

**Dr Calvin Kwan**

General Manager, Sustainability, Link Asset Management Ltd

Dr Kwan started his talk by explaining the background and significance of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB). TCFD aimed to develop recommendations for more efficient and effective climate-related disclosures that:

- Promote more informed investment, credit, and insurance underwriting decisions
- Enable stakeholders to better understand the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks

He highlighted three primary problems in the current climate-related disclosure landscape:

- Issuers have a general obligation under existing laws to disclose material risk, but lack a coherent framework to do so for climate-related risk
- Lenders, insurers, and investors need climate-related risk information to make informed capital allocation and financial decisions
- Regulators need to understand the risks that may be building in the financial system

TCFD defines the solution as: a clear, efficient, and voluntary disclosure framework that improves the ease of both producing and using climate-related financial disclosures.

Dr Kwan summarises the key innovations within the fabric of TCFD's recommendations and guidance, that they:

- Should be scalable and could be applied to any company in the world
- Should be addressed in financial filings
- Are designed to solicit decision-useful information
- Encourage forward-looking information through scenario analysis
- Provide additional guidance to the most-impacted sectors and industries
- Address the full investment value chain
- Place greater emphasis on risks and opportunities related to the transition to a lower-carbon economy
- Represent a consensus from TCFD members across financial and non-financial sectors

The banking sector has launched a TCFD guidance report focusing on transition risks through the United Nations Environment Programme Finance Initiative. In addition, and the investment sector pilot is also coming to fruition with a variety of well-respected institutions, all with the common goal of standardising a TCFD compliant report.

Dr Kwan acknowledged some of the challenges TCFD recommendations face, including: which temperature rise scenarios to choose from, the scope of the scenario analysis, and the time frame of the organisations' goals. The investment sector pilot is currently in the development phases of the report and an online tool to assist companies with TCFD recommendations. The launch will occur sometime between March and April of 2019.

## VII: Panel Discussion 2

Moderated by Dr Nadira Lamrad,

Assistant Director – Sustainability & ESG Advisory, BEC



### Thoughts on the IPCC's 1.5°C Special Report

- Panellists are optimistic about the report, as this means opportunities for investment and collaborations. The investment community is being steered towards the United Nations Sustainable Development Goals (UN SDGs) and TCFD recommendations, and business coalitions are being formed across the globe; however, regulatory changes and collaboration with governments would also be necessary – for example, the demand for unsustainable palm oil in Indonesia will not disappear without government intervention.
- The drastic, non-linear impacts between a 1.5°C and a 2°C temperature rise are not well understood outside the scientific community. Therefore, there may be a need to improve or re-brand the communication strategies to raise more awareness in business communities and the civil society.

### Opportunities for Hong Kong Companies

- Hong Kong has a small and tight community that enables greater exchange and collaboration between the government, the business community, and the academia.
- Link REIT created a risk management framework for climate change – in the case of Hong Kong – specifically the impact of rainfall. Their portfolio incurred minimal damage from the recent typhoon Mangkhut, and the company filed less insurance claims compared to previous years. This may provide a ground for the company to negotiate a lower price or better terms with insurers.

### One Suggestion to get Hong Kong to be Carbon Neutral by 2050 – Views from Panellists

- Build a carbon trading market, leverage the advantage of Hong Kong's existing governance structure and the well-established finance sector.
- Going a step further to implement a carbon tax, where companies do not have the choice of buying carbon credits.
- Set up an ambitious target for 2050 and encourage more cross-sector collaboration on climate action.

## VIII: Plenary 3: Setting targets to drive change: sharing from business leaders



### **Panellists (from left to right):**

**Mr Andy Yeung,**

Director and Head of Technical Services & Sustainability, Hongkong Land Ltd

**Dr Raymond Yau,**

General Manager, Technical Services & Sustainable Development, Swire Properties Ltd

**Ms Amie Shuttleworth,**

Global Director of Sustainability, Cundall

**Mr Guillaume Schoebel,**

Senior Vice President – Sustainability Strategy, Schneider Electric

**Mr Mike Kilburn,**

Assistant General Manager, Sustainability, Airport Authority Hong Kong

**Dr Jeanne Ng (Moderator),**

Director – CLP Research Institute, CLP Holdings Ltd

## Corporate Sustainability Framework

### *Cundall*

- Implemented their sustainability strategy since 2012; they did a materiality review and came up with 6 key areas using the UN SDGs and One Planet Living framework: Climate Positive Action, Zero Carbon Energy, Health and Wellbeing, Ethics and Equity, Climate Change Adaptation, and Materials and Supply Chain.
- Made the mistake of only setting absolute targets, which was difficult to achieve because the company grew significantly.
- Realised the importance of data quality as they experienced the below barriers in three stages:
  - Data gaps;
  - Data reports that no one reads; and
  - Data reports that no one knows what to do with.

### *Schneider Electric*

- The framework started 20 years ago and was primarily driven towards an external audience, with 3 main pillars
  - Access to Energy – assisting people around the world;
  - Investment in People – for example diversity and training for not just employees but also customers and suppliers; and
  - Energy Saving – putting sustainability at the core of their business.
- Reasons for setting up the framework
  - Customers need it and demand efficient products ;
  - Investors are becoming more selective and demanding for ESG factors; and
  - Employees, both current and prospective, are becoming more selective in choosing the companies they work with.

### *Airport Authority Hong Kong*

- Determined to become the world's greenest airport.

- The airport is in its second round of having a 5-year carbon intensity reduction target, which reflects the effort of the airport community to reduce their emissions. However, absolute reduction targets ultimately have to depend on the power companies because there will be a limit to reductions done through demand-side management.
- The worldwide airport sector has an Airport Carbon Accreditation that includes 4 levels of certification: mapping (identifying and calculating carbon emissions), reduction (achieving carbon reduction targets), optimisation (engaging third parties to reduce their emissions), and neutrality (offsetting the remaining emissions).

#### *Swire Properties*

- The group has long been adopting sustainable development (SD) strategies and working with various partners – employees, tenants, and architects – for implementation.
- The entire company was engaged in the development of the new SD strategy – for example the finance director now has “green finance” as a part of the key performance indicators.
- The process of setting a Science Based Target (SBT) alone provided an opportunity for the whole company to reflect on its sustainability strategy and actions.

#### *Hongkong Land*

- In 2008, reviewed all of their operation parameters and system performances, done comprehensive energy audits, set a baseline, forecasted on possible improvements, and set a target to reduce their carbon emissions by 20% by 2020 (2008 baseline).
- Some of their actions include:
  - Replacing end-of-life equipment with energy efficient models
  - Proactively retrofit based on life-cycle cost considerations of various equipment models

- Integrated old building management systems into a centralised control centre to manage their portfolio effectively in a single database for analytics
- Advised property management companies not to overlook even the smallest energy saving opportunities – often low cost and easy to implement – would accrue to significant savings over time.

### Business Target Setting

- BEC was challenged to set a carbon target – which its senior management team commented that this is, in fact, an agreed item on the company’s agenda. BEC is also aiming to set a leadership role for its members by launching a “Low Carbon Charter” that will encourage and assist companies in setting their own targets.
- Companies have internal indicators that are not disclosed publically and not utilised in setting targets – due to the concern of public accountability, or simply because companies do not know how to set a target regarding that aspect (e.g. gender pay gap).
- Internal stretch targets can be set to motivate behavioural change, as well as encourage innovation and creativity.

### On Scope 3 Emissions

- Some companies may not have sufficient data to set a Scope 3 target, so the data collection process should be initiated prior to setting the target.
- Certain companies have raised concern that their Scope 3 emissions overlap with Scope 1 emissions of other companies, so there could be controversies relating to the accreditation and cost burden of emission reductions.
- Hong Kong needs to have a framework for setting targets that recognises not all companies are in the position of setting an SBT, but will need to start the journey nonetheless because targets are an important driver of change.
- For the property sector, addressing Scope 3 emissions opens up the opportunity for tenant engagement.

## IX: Closing Remarks and Summary

**Mr Richard Lancaster**

BEC Chairman and CEO, CLP Holdings Limited

Mr Lancaster concluded the conference with his 4 key takeaways:

- Pleased to see people thinking more positively and constructively about how to transform their businesses to reduce carbon emissions, instead of discussing whether that was the right thing to do. This was echoed by the various examples of leadership in the business community around carbon reduction presented at the conference.
- The importance of thinking about targeting setting in the context of significant reductions. This means transitioning from the mindset of setting incremental carbon reduction targets to a net zero carbon level of ambition.
- Hong Kong's unique position as a gateway between China and the international business community allows us to take advantage of the leadership and opportunities (e.g. technology, innovation, financing, and best practices) around the world and in the mainland.
- There are incredible breakthroughs in innovation – not just in technology but also in business practices (e.g. financing) – which will be exciting to witness their role in reducing carbon emissions.

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## About BEC

Business Environment Council Limited (“BEC”) is an independent, charitable membership organisation, established by the business sector in Hong Kong. Since its establishment in 1992, BEC has been at the forefront of promoting environmental excellence by advocating the uptake of clean technologies and practices which reduce waste, conserve resources, prevent pollution and improve corporate environmental and social responsibility. BEC offers sustainable solutions and professional services covering advisory, research, assessment, training and award programs for government, business and the community, thus enabling environmental protection and contributing to the transition to a low carbon economy.

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