



WASTELINE : Edition 2/2019

The Newsletter of the Hong Kong Waste Management Association

Web Site: www.hongkongwma.org.hk

Focus

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Conference

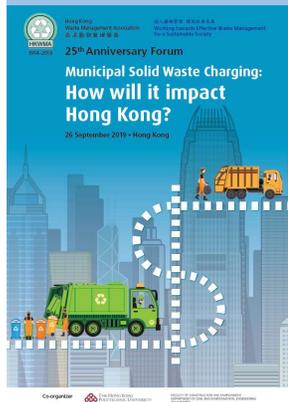
YMC

Learning

Events

Message from the Editor:
This Newsletter requires your participation. We would like to hear your experiences in implementing good waste management practices in Hong Kong or overseas. If you have an interesting story to tell, please write to me at david.pegg@arup.com

Learning:



Conference: Two-Coast Four-Place Forum, Xian

Focus: Recycling of Plastic Waste in Hong Kong



Event: HKWMA 25th Anniversary and Annual General Meeting



Recycling of Plastic Waste in Hong Kong

World Environment Day and World Ocean Day occurred on the 9 June 2019 and highlighted how ubiquitous plastic pollution has become in our natural environment to the extent that single use or disposable plastic has become an addiction that threatens our natural environment with severe consequences.

The UN Environment Report 2018- Banning Single Use Plastic Lessons and Experience from Countries quotes researchers estimates that more than 8.3 billion tonnes of plastic has been produced since the early 1950's with about 60% of that plastic ending up in either a landfill or the natural environment. At current rates of consumption the plastic industry could account for 20% of the world's oil consumption.

There is increasing evidence that plastic consumption habits need to change and #BeatingPlasticPollution has become a core objective for many global corporations and governments, especially single-use plastic products such as:

- Polyethylene terephthalate (PET) found in water bottles, dispensing container, etc.
- High-density polyethylene (HDPE) found in shampoo bottles, milk bottles, ice cream containers, etc.
- Low-density polyethylene (LDPE) found in bags and food packing film
- Polypropylene (PP) found in microwave dishes, bottle caps, etc.
- Polystyrene (PS) found in cutlery, plates and cups
- Expanded polystyrene (EPS) found in protective packaging, hot drink cups, etc.

In Hong Kong steps are being taken against plastic pollution. Government used World Environment Day to hold a plastic free fun fair under the theme "Go Plastic Free" to launch the 'Plastic free takeaway, Use reusable tableware' campaign in conjunction with more than 700 eateries. The Gov't have also been raising awareness to the general public of the "four plastic-free must-haves", namely reusable cutlery, a food container, a water bottle and an eco-bag to show their commitment to "Go Plastic-free". Likewise, the 2019 HK Sevens heralded the implementation of the pint cup deposit refund scheme by the Hong Kong Rugby Union to reduce single use plastic consumption at the event.

NGO's, EPD and volunteer groups have organized numerous beach cleanups under the "Plastic Free Beach" campaign and these has been ongoing throughout 2019 and into 2020.





Cont'd Recycling of Plastic Waste in Hong Kong

On 24 Oct 2019, EPD awarded a 27-month contract, for the initial Pilot Scheme on Collection and Recycling Services of Plastic Recyclable Materials – Eastern, to Success Grand Environmental Limited. The pilot scheme aims to collect all types of waste plastics such as different types of plastic bottles, containers and utensils, packaging materials and styrofoam, directly from non-C&I premises in the district, including public and private housing estates, schools and public institutions as well as Community Green Stations and Community Recycling Centres under the management of the EPD, for further treatment. EPD have also invited tenders for the collection and recycling services of plastic recyclable materials in Kwun Tong and Sha Tin districts in late August 2019. With the experience gained from these pilot schemes and the progress of the Producer Responsibility Scheme on plastic beverage containers, the EPD plan to expand the free collection service for non-C&I waste plastics to cover the whole territory progressively.

The private sector are also rising to meet the challenge of the 5.2 million PET bottles disposed of every day, mainly to landfill with very few being recycled. To meet this challenge New Life Plastics Ltd. (NLP) was created and comprises a joint venture of Alba Group, Baguio Green and Swire Coca-Cola. NLP are building a state-of-the-art facility in EcoPark in Tuen Mun which will process PET (mainly beverage) and HDPE (cleaning and personal care) bottles that are collected across Hong Kong. The plant is designed to process approximately 35,000 tonnes a year, (70 tonnes of PET and 30 tonnes of HDPE bottles a day). A key difference of this project from other recycling plants in Hong Kong is that the food grade PET will be kept as food grade through the process which will allow the output to be incorporated into new food containers. The sophisticated processing plant, manufactured by equipment specialist STF in Germany, will ensure that the output of both the PET and HDPE lines will be considered as a product for manufacture and will no longer be considered as waste.

Development of the collection network across Hong Kong has been a key challenge. NLP will use existing and create new networks using the new Reverse Vending Machines that are being installed and working with NGOs, property management companies, institutions, hotels and the like. The facility web site will show how much material has been collected, how much waste there is in the process and most importantly the final destination of the output. For the PET output, certificates will be provided confirming that the material has been reused for manufacture.

Construction of the facility commenced in September 2019 and it is anticipated that the plant will become operational in the Autumn of 2020. The facility will incorporate an education centre which will allow visitors to understand the benefits of the recycling system and see the processing plant in operation. NLP believes that keeping the processed materials at the same grade as the input will form an essential part of the circular economy for plastic bottles.

These represent some of the initiatives that have undertaken in 2019/2020 to #BeatPlasticPollution and demonstrate that public and private participation in these initiatives are essential to tackling this global problem locally here in Hong Kong.



Hong Kong's 1st PET and HDPE Recycling Facility

Sources: UN Reports, EPD Press Release and NLP Press Release



HKWMA AGM and 25th Anniversary Dinner

26 September 2019

On the 26 September 2019 members and guests gathered to celebrate the occasion of the 25th Annual General Meeting of the Hong Kong Waste Management Association. The AGM coincided with HKWMA 25th Anniversary Forum that had been held earlier in the day (as discussed in a separate article within this newsletter) to discuss Municipal Solid Waste Charging and How it Impacts Hong Kong.

The evening commenced with an informal cocktail gathering with attendance of more than 50 members and guests at the Regal Kowloon Hotel before the Chairman, Jude Chow, sought approval of the minutes of the previous AGM and delivered his annual report to members.

The chairman's report was his last report before handing over chairmanship and he reflected on the objectives and achievement during his tenure as Chairman. One of the key objectives was building relationships with regional associations and regional waste practitioners and this has been achieved through participation in the ISWA World Congress in Malaysia; hosting a study mission with Singaporean counterparts whereby we showcased work and facilities for WEEE, organic waste and automated waste collection and handling; embarking on a Tokyo study mission that took local members to examine recycling facilities that convert food waste to pet food and recycling of glass milk bottle as well as attendance at the annual Two Coast Four Place forum in Taiwan. These activities have strengthened our regional network and promoted skills and capability of Hong Kong waste practitioners.

The chairman reported that the association continues to offer its views and opinions to the public on best practice and had been active in the media to discuss impacts of China National Sword on the impact on the recycling industry and at the Spring Cocktail reception had raised awareness of work done by NGO's in tackling food waste.

The chairman highlighted that Learning and Development continued to be a core part of the association's activities and that throughout the year the association had planned technical talks, study missions and facility visits for members and young members.

The AGM reported on a number of procedural matters relating to membership that stood at 270 members and the financial status of the associations accounts that maintain a cash surplus. Members approved the accounts and the continued appointment of the designated accountant.



Chairman Elect, Prof. Kaiman Shih

Retiring Chairman, Jude Chow



HKWMA Executive Committee Members

Event

Reported by David Pegg



Cont'd HKWMA AGM and 25th Anniversary Dinner 26 September 2019

In accordance with the HKWMA Charter there were three retiring Executive committee members namely, Antoine Grange, Victor Li and Kenny Wong and the Chairman expressed appreciation for their service. Nominations for four Executive Committee Members were received and approved by members with Antoine Grange, Kenny Wong, Kenny Lok and Gary Barnicott being elected.

Prior to receiving a vote of appreciation from members for his service and leadership. The chairman sought approval from members for the nomination of Professor Kaiman Shih as the new Chairman. The nomination was unanimously approved by members.

The new chairman accepted his appointment and within his acceptance speech outlined his vision and objectives for the term ahead with focus on enriching the young members chapter and placing focus on home grown talent and technology. The new chairman acknowledged the contribution and work done by Prof Alfred Koenig for the HKWMA and appealed for members support to develop the local waste community.

The final business of the AGM was to provide special thanks to Alice York and Winnie Yeung for their loyal and committed support the HKWMA over many years and all members expressed their immense gratitude.



Vote of Thanks to Alice York



Previous Chairman of HKWMA



Retiring Chairman's Annual Review



Members engaging with the AGM

Event

Reported by David Pegg



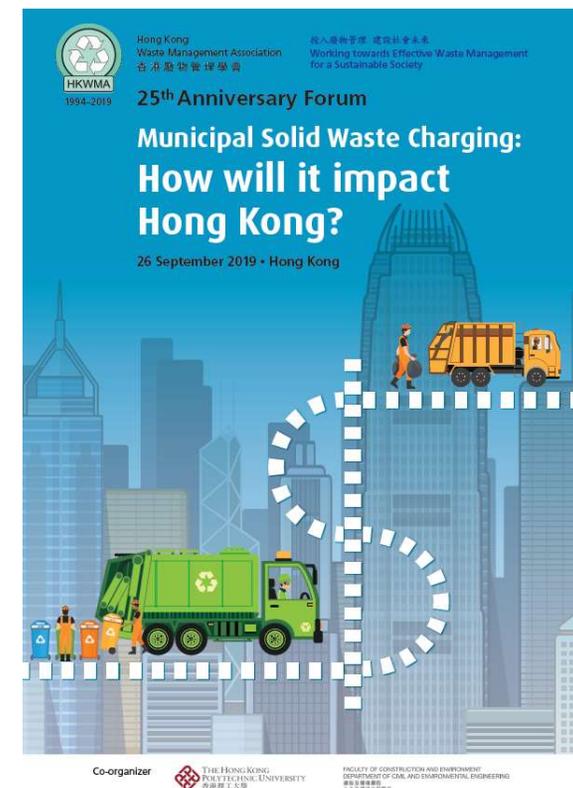
MSW Charging: How will it impact Hong Kong

26 September 2019

Hong Kong Waste Management Association successfully held its 25th Anniversary Forum on the 26 September 2019 at the Chiang Chen Studio Theatre at the Hong Kong Polytechnic University. As municipal waste charging is a key theme in Hong Kong's waste management roadmap, the event attracted a wide range of audiences as the forum provided a platform for them to further understand the key issues related to this concept, and the awaiting opportunities and challenges with its implementation. The event was well attended by 200 professionals in the waste management industry.

Mr. WONG Kam-sing, the Secretary for the Environment from the Environment Bureau, the HKSAR Government, was the Guest of Honour for the event. He provided an opening address to the forum, highlighting the tremendous efforts that have been spent by the government on establishing a framework on Municipal Solid Waste (MSW) charging, and the next step forward in terms of implementation. The opening address was followed by the keynote speaker, Ir Dr the Hon LO Wai Kwok who is a member of the legislative council of the Hong Kong Special Administrative Region, representing the Engineering Functional Constituency. An animated presentation was given on the environmental impact of waste management policy of Hong Kong, emphasising on the need of MSW charging to reverse the alarming trend of the ever increasing MSW disposal rate in Hong Kong.

The morning session of the Forum was focused on Policy and Application. Details on the municipal waste charging scheme, which is the centre of the overall waste reduction strategy in Hong Kong, was given by Ir Lawrence CHEUNG from the Environmental Protection Department, HKSAR Government. Mr. Jan FISCHER from the Municipality of Rotterdam, the Netherlands, provided the audience of the experience from Rotterdam, the Netherlands, on how waste charging and other incentives influenced the behaviours of residents and entrepreneurs with regard to the disposal of waste. Mr. Francois JENNY from Suez also delivered a presentation on the smart waste management system currently being deployed in Europe, and how Internet of Things could be developed to improve quality of services.



Learning

Reported by Norman Cheng



Cont'd MSW Charging: How will it impact HK

26 September 2019

The theme of the 2nd session was Implementation of MSW Charging, with three prominent speakers providing their expertise on this subject. Professor June-Woo PARK from South Korea shared his experience regarding obstacles and problems when the Volume Based Waste Fee (VBWF) system was launched in South Korea, and how they were eventually overcome. Mr. Simon WONG from Food Smart Programme then underlined the food and beverage's initiatives to reduce food waste, as Hong Kong generates approximately 3,600 tonnes of food waste per day which are disposed of at the landfill. Mr. Kenny WONG from the Hong Kong Productivity Council then shared his experiences on conducting MSW charging trials in various sectors in Hong Kong.

The final session of the forum was dedicated to the recycling industry. Mr. Derek FUNG from Hong Kong Glass Reborn provided an in-depth discussion on glass recycling in Hong Kong, and how this industry has contributed to the concept of circular economy. The second speaker in the session, Ms. Phyllis NG from Baguio Green Group, shared her experience in developing recycling logistics and infrastructures which are instruments that are required to facilitate the implementation of MSW charging. Mr. Nigel MATTRAVERS from New Life Plastics presented the new state-of-the-art processing plant that is being developed in Hong Kong that will manage a large proportion of the PET and HDPE plastics in Hong Kong. The final speaker of the day, Mr. Kenny KWAN, provided his insights on the different green technologies related to the treatment of waste rubber tyres, and the challenges and opportunities in implementing a green project in Hong Kong and the Greater Bay Area.

The audiences were vibrant throughout the Forum, utilising the time in the Question and Answer Period of each session to ask thought-provoking questions to the speakers on issues related to waste management. As one of the flagship events during the 25th Anniversary of the Hong Kong Waste Management Association, the Forum was no doubt a success, with speakers sharing their extensive experience on different topics, leaving the audiences to ponder on the implications of their newly acquired knowledge.



Learning

Reported by Norman Cheng



O-Park 2: Next Step in Tackling Food Waste

16 August 2019

People, food processing factories and restaurants across Hong Kong produce a huge amount of food waste everyday – reaching up to 3,600 tonnes – and much of it ends up our strategic landfills.

The Environmental Protection Department (EPD) announced on the 2 August 2019, that following an open tender process, AJA Joint Venture had won the contract to design, build and operate the Organic Resources Recovery Centre Phase 2 (O-PARK2). An EPD spokespersons expressed that "The practice of disposing of a large amount of food waste a landfills is neither sustainable nor environmentally desirable and also depletes the limited landfill space. We need to develop modern recovery centres to recycle and convert source-separated food waste into useful resources including energy"

O-Park2 follows on from the recent implementation and commissioning of O-Park1 and provides the next step in the Food Waste and Yard Plan 2014-2022 that envisages a network of organic resource recovery centres located across the territory.

O-Park2 will be located at Sha Ling in North District and occupy an area of approximately 2.5 hectares. O-Park2 will be able to treat 300 tonnes of food waste daily and produce biogas, which is a form of renewable energy. In addition to providing electricity and heat for the facilities in O-PARK2, the surplus biogas will be used for production of town gas or electricity to be fed into the power grids of the power companies. Furthermore, O-PARK2 will produce about 10 000 tonnes of compost annually, of which some will be reserved for use by government departments, farmers and member of the public for free.

O-PARK2 is expected to be commissioned in 2022 and the contract includes a 15-year operation period. With the commissioning of O-PARK2, the decrease in use of fossil fuels for electricity generation together with the reduced amount of organic waste being sent to landfills will prevent the emission of some 67 000 tonnes of greenhouse gases, and reduce the amount of food waste to be disposed of at landfills by about 110 000 tonnes annually.

Source: EPD Website Press Release; Image JEC Website



O-Park 2 Rendering from JEC Press Release



Two-Coast Four-Place Forum, Xian 27-28 September 2019

The flagship Annual Two-Coast Four-Places Forum on Sustainable Solid Waste Management took place in Xian on 27-28 Sep 2019 for the 13th time. This major regional annual event attracted government officials, academics, professionals, representatives from a variety of associations and institutes and businessmen in the region and comprised 11 presentations organized by Chinese Association of Urban and Environmental Sanitation.

The purpose of the forum was to broaden participants' horizon in waste management and to understand the latest development in Mainland China. After the forum, there was a cultural and academic exchange session with lunch at a local Chinese restaurant. The forum provided participants from four regional cities of Mainland China, Taiwan, Macau and Hong Kong the chance to build up their new social and business networks and exchange experience/knowledge.

There were totally 10 people from Hong Kong who attended this event. Our chairman, Mr. Jude Chow and Executive Committee Member, Mr. Kenny Lok introduced HKWMA and presented the technical development in Hong Kong during the forum.

The topic of Source Separation of Waste and Resource Recovery was upper-most in participants thoughts during the first session of the Forum: difficulties, challenges, efforts and successes. There were examples from Beijing, Taiwan, Xian and Zhejiang. A presentation from keynote speaker, Mr. Lau from the Chinese Association of Urban and Environmental Sanitation, on the background to the current development of waste management in Mainland China offered participants an insightful combination of practical and discussion-based learning.

The second session was a technical visit to Xi'an Lantian Waste-to-energy treatment plant. This offered participants theoretical and practical knowledge in order to develop their understanding of the technologies available within waste collection, treatment and the monitoring of emissions.

Apart from Technical Visits, the group visited various heritage sites in this historical place for different cultural experience and better understanding of Chinese history.

After the forum, all participants had experienced the rapid technology development and opportunities in Xian. We all enjoyed with the arrangement and sincerely appreciated to all efforts from the organizing committees.

The next Annual Two-Coast Four-Places Forum on Sustainable Solid Waste Management will be held in Macau (2020).



Event

Reported by Kenny Lok



Building the Infrastructure for the Circular Economy in APEC, 9 September 2019

Joint ABAC-APFF-APIP-HKGCC Conference: Building the Infrastructure for the Circular Economy in APEC.

HKWMA Executive Committee Member, Nigel Mattravers, and representatives from HKWMA corporate members were invited to attend and present at the Joint ABAC-APFF-APIP-HKGCC Conference: Building the Infrastructure for the Circular Economy in APEC held on the 9th September 2019 at the HK General Chamber of Commerce. This conference looked to build on previous and ongoing work within APEC (Asia-Pacific Economic Cooperation) and the APEC Business Advisory Council (ABAC) including those within the Asia-Pacific Financial Forum (APFF), Asia-Pacific Infrastructure Partnership (APIP), and the APEC Committee on Trade and Investment. It brought together key stakeholders and experts from governments, business, academia and multilateral institutions, and sought to identify and obtain agreement on practical steps to develop a pipeline of bankable waste management projects that can attract private sector investment and participation.

Speakers and attendees came from right across the Asia-Pacific region and included representatives from various APEC governments, investors, NGOs, consultants and waste management companies. Whilst the theme of the conference was 'Infrastructure for the Circular Economy', the principle topics of discussion focused more to do with the difficulty of financing or building any waste management infrastructure in the region and how these embraced circular economy principles. There was particular concern expressed by the representatives from countries with less developed waste management systems, such as the Philippines and Vietnam, about the difficulty of building waste management programme and facilities. In their view the pre-requisites of reliable and robust collection, pre-treatment, treatment and disposal facilities and programmes are essential before further devolving to full circular economy principles.

Speakers from the HKWMA, spoke about the conflict between developing projects that were 'bankable' and yet met the objectives of delivering a circular economy solution and what makes an integrated waste management solution, including the need for policy and legislation, and made direct reference the Hong Kong WEEERF project that is a good example of policy and legislation being developed for a specific waste stream and supporting treatment facility.



2018 Hong Kong Waste Statistics Published 25 November 2019

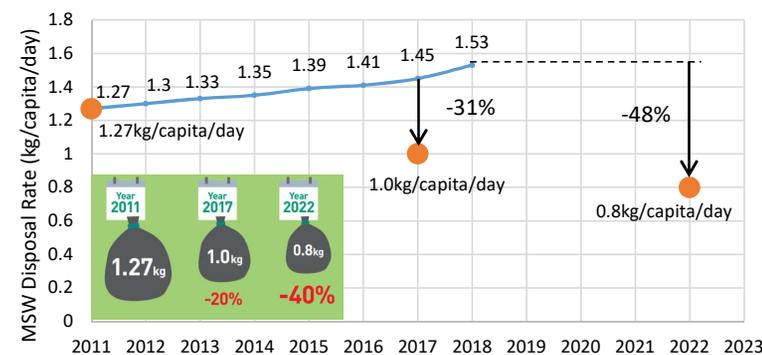
The Environmental Protection Department released the 2018 Hong Kong Monitoring of Solid Waste Statistics on 25th November 2019. The total average daily quantity of solid waste disposed of at landfills was recorded as 16,096 tonnes in 2018, in which, the average daily quantity of MSW disposal at landfills was 11,428 tonnes in 2018. The per capita disposal rate of Municipal Solid Waste (MSW) was reaching as high as 1.53kg/day, which represents a 6% increase from 2017. The 2018 statistics identified Typhoon Mangkhut as one of the major drivers to the increase in solid waste disposal since there were lots of destructive damages to the city causing an increase in unconventional waste.

Some promising findings of the 2018 statistics showed that disposal of food waste and WEEE dropped by 2.6% and 7.8% year-on-year, respectively, after the commissioning of O-PARK1 and the implementation of the Producer Responsibility Scheme (PRS) on Waste Electrical and Electronic Equipment and the opening of the WEEETRF. There was also a decrease of 3% of the disposal of overall construction waste at landfills compared with 2017.

These statistics represent an ongoing challenge to achievement of the “Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022” prepared with waste data baselined from 2011. The specific targets of the Blueprint were to reduce the disposal rate of MSW to 0.8kg/day/capita by 2022. The disposal rate of MSW at landfill in Hong Kong in 2018 is currently 48% higher than the target set for 2022. This alarming figure may be a result of prolonged delay in launching of MSW charging and Producer Responsibility Schemes that all target waste reduction and restrictions of export of recyclable material to Mainland China. On the other hand, the Blueprint forecast numerous waste infrastructure facilities to be commissioned during the Blueprint tenure. Specifically, food waste was a major target for waste reduction target. O-PARK1 has only recently been commissioned and O-PARK2 will not be operational until 2022 meaning that there are still 3,565 tonnes of food waste being disposed of at landfill on a daily basis as of 2018.

In light of the current situation, there is still a long way to go before Hong Kong can reach the target disposal rate of 0.8kg/day/capita. There remains a need for Government and stakeholders to act quickly and collaboratively to identify alternative solutions so that Hong Kong can get back on track to achieve the target. Simultaneously, it is essential that methods to monitor the progress and effectiveness of the waste treatment facilities and waste reduction programmes implemented e.g. PRS on WEEE, glass bottles and food waste, support on recycling fund and food waste recycling programmes are effective. Whilst, at a personal level, every citizen should be responsible to support waste reduction through daily actions of responsible purchasing and consumption.

Trend of MSW Disposal Rate





Events for your Diary

Recently Completed Events

Date	Event	Organization
26 Sept 2019	25 th Year Anniversary Event and AGM	HKWMA
26 Sep 2019	Municipal Solid Waste Charging: How will it impact Hong Kong ?	HKWMA
24 Sep 2019	FoodSmart Conference for the Food and Beverage Trade	HKPC with HKWMA Support
27-Sep 2019	Two-Coast Four-Place Forum, Xian	
31 Oct 2019	Eco Asia Conference: Waste to Resources and Waste to Energy	Eco Expo Asia
8 Jan 2020	HKIE Environmental Division Annual Reception	HKIE (Environmental Division)

Forthcoming Events (Dates subject to change due to Covid-19 precautions)

Date	Event	Organization
20 April 2020	HKIE Environmental Division Forum "Decarbonisation – How do we prepare for the transformation"	HKIE
26 May 2020	Designing Buildings for a Zero Waste Hong Kong	BEC
11 May 2020	HKGSA/ HKEnvIA/ HKBEE/ HKPC Annual Reception	HKWMA supporting
June 2020	HKWMA Spring Cocktail Reception	HKWMA

Designing Buildings for A Zero Waste Hong Kong
 26 May 2020 (Tuesday), 4:00p.m. – 6:00p.m., BEC Auditorium

Eco Asia Conference
 Waste to Resources · Waste to Energy
 31 October 2019 (Thu), 2:30p.m. – 4:30p.m.

Polite Reminder:
 Membership Renewals will soon be due and your continued support in the year ahead is greatly appreciated. Please complete your membership renewal.

25th Anniversary Forum
 Municipal Solid Waste Charging: How will it impact Hong Kong?
 26 September 2019 - Hong Kong

FoodSmart Conference for the Food and Beverage Trade
 「星星相惜」餐飲業環保會議
 Free Participation 費用全免
 Event Date: 24 September 2019 (Tuesday)
 Event Time: 10:30 am - 5:30 pm
 Venue: ATLANTIC METS Hong Kong Convention and Exhibition Centre