



WASTELINE : Edition 1/2019

The Newsletter of the Hong Kong Waste Management Association
Web Site: www.hongkongwma.org.hk

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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:
Tokyo Study Mission



Event:
HKWMA 24th Annual General Meeting



Conference
ISWA World Congress

Opinion
MSW Charging





In Memory of Barry Wynne Adcock

This edition of the Wasteline is dedicated to the memory of Barry Wynne Adcock who was one of the longest serving members of the HKWMA and our newsletter editor for more than a decade.

During May 2019 we received the sad news of Barry's bereavement following a period of illness. Barry was a friend to many of our members and known throughout the waste management and construction industry for his dedication and commitment to the industry that included being a passionate and active member of the Lighthouse Club as Treasurer.

His career spanned almost four decades and he was a vocal advocate of waste management in Hong Kong. His last contribution to the Newsletter was his editorial in the winter 2017 edition where he spoke about his support for the core principles of the Blueprint and the need for speed of implementation to take a step change with solutions focused on measures to reduce waste generation at source rather than end of pipe solutions that only tackle how to deal with waste once generated.

He came to Hong Kong in 1982 and ended his career overseeing the management and operation of the Territories Landfills.

Barry was a kind, honourable and respected person and will be missed by all members of the HKWMA and the local waste management community.



Barry receiving bound edition of all HKWMA Newsletters in 2017 upon retirement from the Executive Committee



HKWMA Supports MSW Charging in Hong Kong

In our Winter 2017 edition, the article “Let’s get ready for MSW Charging” reported on the Government’s plans for MSW Charging and the release in October 2017 of an Informational Pamphlet for modified arrangements for MSW Charging using the slogan “Dump Less, Save More”.

The MSW Charging Scheme has been headlined as the backbone policy initiative within the HK Blueprint for Sustainable Use of Resources and was intended to drive behavioral change to reduce overall waste generation as well as enhance recycling behavior.

At that time the earliest implementation was envisaged to be end 2019. Fast forward to June 2019 and implementation is now envisaged to be end 2020 following the introduction of legislation in Nov 2018 with passage of the legislation the scrutiny by law makers.

For many years Government has warned of the impending waste crisis facing Hong Kong with landfills rapidly running out of space and alternative treatment facilities such as the IWMF Phase 1 still some years away from implementation.

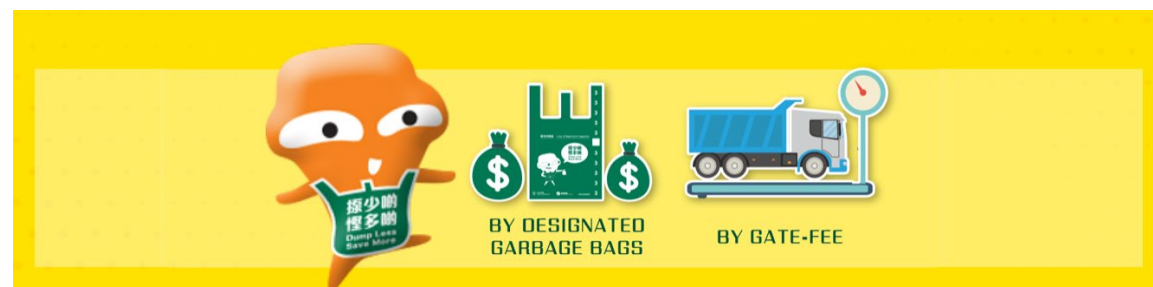
MSW Waste Charging is ideally placed to actively address core principles of the Government’s strategy towards waste management of avoidance, reuse, reduction and recycling. The need for these policy measures to be implemented are long overdue in a city that has plentiful economic resources to make a step change in the Cities Waste Management.

The enabling MSW charging legislation is now pending endorsement by Legco and the aspirations of the waste management community is that implementation of this legislation is now essential to drive behavioral change and reverse the trend of increasing per capita waste disposal.

Government have embarked on community involvement and engagement campaigns in anticipation of the enabling legislation being passed with measures such as pilot trials at residential and commercial premises and public education campaigns, and proposed a preparatory period of 12-18 months for the community to transition to the new MSW charging scheme after passage of the legislation.

The scheme has broad support from all sectors of the community and lessons learnt from overseas charging systems indicate that MSW charging systems will be subject to ongoing monitoring and improvement to address specific local constraints and concerns. Implementation of some action is now essential and better than ongoing inaction before the building pressure on existing landfills become untenable. HKWMA endorses and supports the Government proposals with respect MSW Charging.

<https://www.mswcharging.gov.hk>





HKWMA Annual General Meeting

27 September 2018

On the 27 September 2018 members and guests gathered to celebrate the occasion of the 24th Annual General Meeting of the Hong Kong Waste Management Association.

The evening commenced with an informal cocktail gathering at the Hong Kong Club 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 reflected on Typhoon Mangkhut and the impacts arising from fallen trees and plastic waste washed up onto the City's beaches and urged all members and guests to work together to tackle waste and climate change issues throughout the City and the Region. He reflected on his recent visit to Singapore where he had visited the biomass plant at Gardens by the Bay as an example of projects being self sufficient for energy and tackling waste in a more sustainable manner.

The chairman highlighted the objectives of the HKWMA in the last year were to Reach Out to Neighbours and Deliver Waste Management Messages to Society. The HKWMA had been successful in achieving these two core objectives having participated in WasteMet Singapore, Eco Asia Expo Hong Kong, Sino-German Forum on climate change, hosting a delegation from South Korea, attendance at the Two Coast Forum in Taiwan and the ASEAN Waste Management Forum in Thailand as well as joint study tours between HKWMA and HKIE Environmental Division to South Korea and Japan.

Locally, the HKWMA has been promoting and advocating waste management through the issue of a paper to strengthen the recycling industry in Hong Kong, participated in radio debates on MSW Charging and arranged numerous knowledge transfer and site visits to local and regional waste treatment facilities for members and students.

The chairman provided an update on the financial position of the HKWMA and members gave approval to the audited accounts. In accordance with the HKWMA Rules of Association four Executive members had served their term and three were re-appointed with approval of members.

The Chairman concluded the formal proceedings of the AGM with presentation of Certificates for Organization Members before introducing the Key Note Speaker, Mr. Marshall Tsoi, General Manager of SITA Waste Services Limited, O-Park 1.



Chairman, Jude Chow



EXxCo Members



Members engaging with the AGM



HKWMA Annual General Meeting Cont'd

27 September 2018

Marshall Tsoi from Sita Waste Services Limited delivered a presentation on O-Park 1 the first Organic Waste Treatment Facility developed in response to the Government's Blueprint for Sustainable Resource Management. The presentation provided an overview of the design, construction and operation of the facility that is being delivered as a Design Build and Operate Contract. The facility is located at Siu Ho Wan and is designed to process 83,000 tonnes per year of source separated wet food waste that enables generation of 8000 tonnes of compost with 40% of energy exported to the grid. The facility has recently gain FSD approval for operation and comprises the first double membrane biogas holder in Hong Kong.

The speaker provided an overview of the key facilities by describing the waste flow through the facility and main treatment processes at each stage. Waste reception comprises 3 bays for bulk delivery and 2 bays for bin delivery for tipping of food waste into a 1000m³ bunker within an odour controlled environment. Waste from the bunker undergoes pre-treatment by crushing and trommel screen to remove impurities before being held in the suspension buffer tank and fed into the 3 no. 4300m³ anaerobic digestion tanks at a controlled rate. The digester generates biogas that is fed to the energy centre that under normal operation requires 60% to power the facility and the remainder is exported to the grid. The digestate is dewatered and mixed with bulking agent before being placed in the compost and maturation tunnels to generate the output compost from the facility.

Food waste is odorous and contains high strength wastewater and the speaker described the specific control and treatment systems to mitigate odour and effluent impacts.

The presentation evoked a number questions from members with respect how do we capture the possible total amount of food waste available, what would be the impacts of MSW Charging and what level of impurities is typically encountered within the food waste.

Operation of the facility commenced in October 2018 and sets the baseline for future food waste treatment facilities.



Key Note Speaker Marshall Tsoi



Questions to the Key Note Speaker from Members



Newly Elected ExCo Members with Key Note Speaker, Marshall Tsoi



ISWA World Congress, Malaysia

22-24 October 2018

The ISWA World Congress is a global meeting which includes high level plenaries as well as technical site visits and a cultural and social programme where waste management professionals, government officials, industry leaders, policy makers, scientists and young professionals meet to exchange views and opinions to advance scientific and technical knowledge for sustainable solid waste management. Around 1700 participants from 64 countries comprising industry players had joined the ISWA 2018 World Congress at Kuala Lumpur Convention Centre, Malaysia during 22-24 October 2018.

Malaysia is undoubtedly a beautiful country. Yet alongside her vibrant development in Asia Pacific, Malaysia has doubled her waste generation to 38,000 tonnes per day within only 3 years. Out of this huge amount, waste separation and recycling rate is only at 24% while the remaining 76% of waste goes to 160 landfills, 15 of which are designed as sanitary landfills. Education, legislation & enforcement, waste charging, advanced infrastructures and direction of circular economy are some of the crucial issues. The waste management challenge, and coherently, the opportunities are huge for Malaysia.

The congress officiating guest, Deputy Housing and Local Government Minister Datuk Raja Kamarul Bahrin Shah Raja Ahmad Shah, mentioned that the ministry hoped to raise the waste separation and recycle rate to 30% by 2020. The government now plans to carry out pilot projects at landfills in Melaka, Johor and Negeri Sembilan with a view to turning such facilities into waste-to-energy (WTE) plants.

Seeing communities are living with the consequences of wasteful over-consumption, Congress Chairman, Mr. DL Ho, also Chairman of the [Waste Management Association of Malaysia](#), started organizing the ISWA 2018 four years ago to discuss and tackle the waste management issues facing Malaysia. The HKWMA congratulates Mr. Ho & his team for this successful event.

During the congress, meetings amongst members from Asia Pacific Waste & Environment Alliance (APWEA) were held to facilitate the transfer of knowledge in waste management, raise standards and promote cross-border business matching and co-operation amongst its member-associations. Waste Management & Recycling Association of Singapore (WMRAS) took the lead as the 1st chairperson in 2015 and held various conferences and gatherings. HKWMA signed up to be the member of APWEA in 2016. After 3 years of service, the chairpersonship of APWEA has been consented by members to transfer to Guangdong Environmental Sanitation Association (GDESA) to further strengthen the collaboration amongst her members.

ISWA 2019 will be held in Bilbao, Spain on 7-9 Oct 2019. More congress photos are available for viewing at <http://iswa2018.org/photo-gallery/>.



Delegates gathered for ISWA World Congress



Opening Ceremony for ISWA World Congress



Visit to Hong Kong by Singaporean Waste Mission

23 November 2018

The Waste Management and Recycling Association of Singapore (WMRAS) visited Hong Kong between 21st November to 23rd November 2018 in order to let their members understand more on waste reduction policies and waste management facilities in Hong Kong.

The delegation comprised nineteen members with the delegation leader Ms. Melissa Tan, Chairman of WMRAS and Dr. Amy Khor, Senior Minister of State Ministry of the Environment and Water Resources.

During the three days, the delegation visited Automated Waste Collection System (ARCS) at public housing estates, Kwun Tong Community Green Station (CGS), WEEE treatment facility at Eco Park and T-PARK.

HKWMA hosted a networking dinner and we shared our initiative in waste reduction and our upcoming policy on waste charging. We had a very good exchange between the delegation and our committee members under the casual setting.

Dr. Amy Khor outlined to us that the Singaporean government plans to adopt ARCS as part of Government Greenprint to create sustainable public housing. Singapore is working towards a 'Zero Waste Nation' with a strong emphasis to reduce waste through education and recycling. HKWMA also helped organize a meeting for the delegation to meet with the Environmental Protection Department to discuss Hong Kong policy towards resource recirculation. Through the visit of the Singaporean delegation, both parties learned from each other and we hope to continue to have more sharing and collaboration between WMRAS and HKWMA.



Singaporean Delegation with HKWMA Members



Tokyo Study Tour 5-8 December 2018

HKWMA co-organized with HKIE and Environmental Industries Council a Tokyo study trip from 5 December to 8 December 2018. The trip was led by our Chairperson Mr. Jude Chow and with the local support from HKTDC (Japan).

Our delegation had the pleasure to meet with the senior officials from the Kawasaki International Economic Affairs Office to listen and exchange ideas about solid waste management policy, framework and its implementation to the local citizens. We also discussed the challenges facing in Hong Kong. Then the delegation visited the Kawasaki Environment Research Institute and following with various waste treatment and recycling facilities including Iriezaki Wastewater Treatment Center, Alfo Bioenergy Food Waste Recycling Plant and JFE Kawasaki Plastic Recycling Plant.

On the last day of the trip, the delegation attended the Eco Product Exhibition 2018. They had the opportunity to ask questions to different exhibitors and to learn and exchange experiences on solid waste management, local recycling policy and education to the younger generation on recycling. This study trip was an overall fruitful experience to the delegation.





Two Coast Four Place Forum, Taiwan

12-15 December 2018

The flagship Annual Two-Coast Four-Places Forum on Sustainable Solid Waste Management took place in Taipei on 12-13 Dec 2018 for the 12th time. This major regional annual event had attracted government officials, academics, professionals, representatives from a variety of associations and institutes and businessmen in the region.

The first day started with an informative seminar focusing on topics including energy recovery from MSW, transportation and recycling of hazardous waste, governance and communication in circular and sustainable economy, technological innovation in solid waste management and reusable waste materials.

On the second day the forum arranged a number of technical site visits to local treatment plants comprising:

Taoyuan City Eco Park (桃園市環保科技園區): This is a recycling facility demonstration centre for the community. Eco Park endeavors to promote the turning of waste into resources by returning recyclable materials to the production line and the consumption loop, promoting the development of the local environmental and recycling industry. It exhibits on how to reuse and recycle waste materials, including metals, wood, electrical and electronic equipment, batteries, construction and demolition waste, rubber tires and food waste, back into reusable resources. There is also an education center catered for kids that focus on waste management and reduction in Taiwan.

BaLi Refuse Incineration Plant(八里垃圾焚化廠): With more than 20 years of expertise and experience, BaLi Refuse Incineration Plant continues to offer a comprehensive range of waste management services ranging from analysis, treatment, recycling, recovery, and logistics to final disposal of scheduled waste. The facility is equipped with three Volund mechanical grate incinerators and can treat over 400,000 tons of waste per year. The heat energy produced during combustion is used to heat up water in a boiler and generate steam, which powers turbine generators that produce electricity enough to accommodate the daily use of the city's population of 160,000.

The building's modern glass-curtain exterior is designed by a firm led by renowned architect I.M. Pei, which underscores the BaLi Refuse Incineration Plant's role as Taiwan's model sustainable facility. BaLi Incineration plant is more than a treatment plant; it has various recreational, educational and ecological facilities for the public. Resident can enjoy free swimming pool service, eco-path near the plant and even holding a wedding party within the plant. It represents a new model of a community-focused development, celebrating the full sense of belonging through meaningful engagement, enriching residents through multiple experiences, and empowering them to take ownership of the Hub.





Visit to Zhuhai Food Waste Plant

16 March 2019

The HKWMA YMC along with HKIE Environmental Division jointly organized a technical visit to Zhuhai Food Waste to Energy Plant on 16 March 2019.

Food waste is a major contributor to landfill waste in Hong Kong with about 3,600 tonnes of food waste generated in Hong Kong daily and most of it is being landfilled.

The aim of the visits was to study a new facility recently commissioned in Zhuhai. The food waste pilot plant was jointly developed by the Hong Kong Productivity Council (HKPC) and Associated Engineers Limited (AEL) in Zhuhai since mid-2018. The objective of this pilot study is to demonstrate the performance/efficiency of the 2-stage Anaerobic Digestion (AD) system after scaling up from 50kg/day to 1 tonne/day of maximum treatment capacity. This 2-stage AD technology has been awarded the winning design at the 45th Geneva International Exhibition of Inventions 2017 and the Innovation Award at the 2017 Institution of Engineering and Technology in London. The by-products after AD process including:

- i) methane gas for heat/electricity generation,
- ii) residual floating oil for biodiesel production and
- iii) solid residue as a kind of animal feed could be 100% fully utilized for commercial application.

On the day of the visit, members were given a presentation of the system by Dr. Anthony Ma from HKPC who designed the system. Then members visited the pilot plant and got to see first hand the waste flow through the facility comprising food waste pre-treatment that removes all impurities, separation and anaerobic digester to produce biogas. Members asked many questions and had a very meaningful technical discussion with AEL and HKPC.



HKWMA members visiting Zhuhai Food Waste Plant



HKWMA Spring Cocktail Reception

7 May 2019

On the 7 May 2019 members and guests gathered for the HKWMA annual spring cocktail reception at the Hong Kong Club.

We were delighted to be honored with the presence of the Founder and Patron of Food for Good, Mrs. Regina Leung Tong Ching-Yee, who established in November 2012, Food For Good as a non-profit making organization aimed at promoting a greener eating habit in Hong Kong.

Food waste has increasingly become a critical issue in most of the richer cities of the world, including Hong Kong. The impact of food waste not only affects the economy but also the environment. The amount of food being wasted is tremendous yet there are still millions of people in the world living below subsistence level. Food For Good serves as a platform by engaging strategic partners to take innovative and concerted actions to reduce food waste in all walks of life.

Food For Good aims to empower and inspire the community to enact positive solutions to the issue of food waste and works with various non-governmental organizations, community organizations, food and beverage industry, housing estates, schools, industrial and commercial sectors and even more to mobilize a change of attitudes, habits and behavior in handling food waste and to promote a greener eating habit.

- To encourage a healthy and environmental friendly eating culture
- To facilitate food waste reduction in Hong Kong
- To promote the recycling of lunch box leftovers and the setting up of school gardens
- To advocate the recycling of food waste and the setting up of community gardens in housing estates
- To facilitate the setting up of community kitchens for redistributing surplus food to those in need
- To promote a sustainable and environmental friendly management system for food and beverage industry



Guest of Honor, Regina Leung Tong Ching -Yee , Founder and Patron Food for Good



Guest of Honor, Regina Leung Tong Ching -Yee with HKWMA ExCo Members



In the News

Changes to Executive Committee

The following changes to the Executive Committee were implemented at the 24th AGM

Members Resigning

- Mr Karel Haurdoundin (Membership)
- Professor Irene Lo (Executive Committee)

Members Resigning from current 3 year terms and Re-elected for new 3 year term

- Dr Kaimin Shih (Executive Committee)
- Dr Daniel Tsang (Executive Committee)
- Mr David Pegg (Executive Committee)

New Co-Opted Members

- Mr Nigel Mattravers

Farewell to Karel Haurboudin

On the 14 November 2018 members of the HKWMA Executive Committee gathered at 1881 Heritage to wish farewell to Karel Haurboudin who had served the HKWMA for more than a decade as membership secretary.

Karel will be leaving Hong Kong to take a new position overseas with his current employer.



Chairman, Jude Chow, presenting Karel Haurboudin with a farewell gift



Events for your Diary

Recently Completed Events

Date	Event	Organization
25 May 2019	Technical Visit to O.PARK1	HKWMA
7 May 2019	Spring Cocktail Reception	HKWMA
17 May 2019	The Business of Waste – Solving Hong Kong's Urgent Environment Problem	BEC Waste Management Advisory Group
30 April 2019	Environmental Innovation: Opportunities and Challenges in Hong Kong	HKIE Environmental Division
27 Mar 2019	NAMI Symposium - Turning MSW into Profit: Novel Recycling and Biodegradable Technologies to Develop High Value Products and Reduce Landfill Burden	NAMI
21 Mar 2019	Networking Luncheon on Less Carbon, Less Waste – Green Innovation	
4-6 Dec 2018	China municipal Solid Waste Incineration Development 30 Years Summit Forum	Guangdong Environmental Sanitation Association
23 Nov 2018	The Making of a Low Carbon Hong Kong: Business Leadership and Best Practices	BEC Waste Management Advisory Group

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

Forthcoming Events

Date	Event	Organization
2 Jul 2019	Annual Reception of Hong Kong Green strategy Alliance	HKGSA
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

HKWMA Gives Its Opinion

HKWMA submitted written comments to Legco on the Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018

HKWMA provides Green Event Pledge

HKWMA provided feedback on the draft GRI 306: Waste Standard

