WASTELINE : Edition 1/2024

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

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Waste



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In Memoriam – Alice York 姚培新

It is with extreme sadness and sorrow that the Hong Kong Waste Management Association announces to members the passing of our beloved Alice York, 28 February 2024.

Alice was one of the longest serving members of the association and was always present at our annual general meetings and her support to the association was formally acknowledged at the 25th Anniversary AGM.

She was an active supporter of the associations activities having being involved in the environmental and waste management sector prior to her retirement from Enviropace Limited.

Alice was an active volunteer and supported the HKWMA, her local church and local hospitals and enjoyed Chinese calligraphy and playing bowling in her social time.

The HKWMA offer our deepest condolences to her family and friends. She will be remembered for her kindness and grace.

Rest In Peace Alice



Alice York at the 25th Anniversary AGM

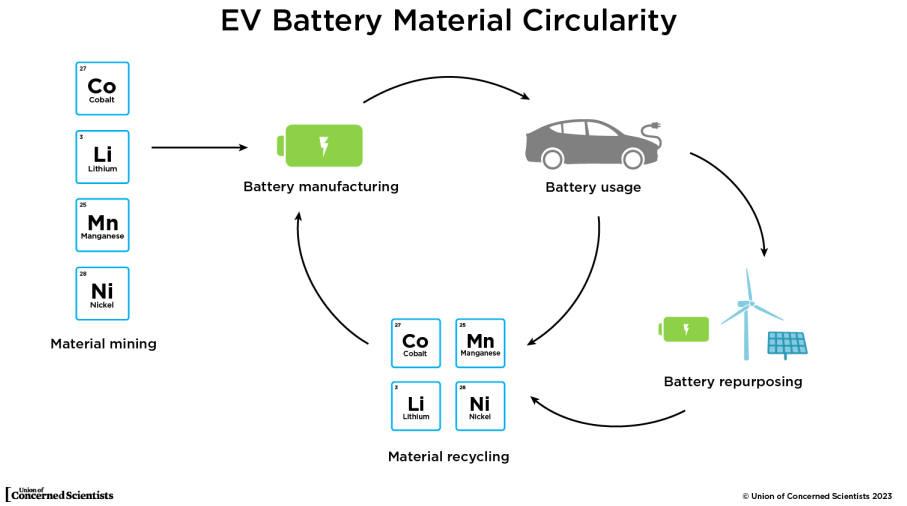
EV Battery Recycling

Challenges and Opportunities

Hong Kong has seen a rapid increase in the sales of electric vehicles (EV's) and government continues to offer subsidies for purchase of electric vehicles to support reduction in carbon emissions. At present rechargeable batteries are typically collected at designated locations and exported for recycling. Given the increase in ownership there are limited choices for recycling or re-purposing at the end of vehicle life.

Whilst increased usage of EVs reduces carbon emissions from hydrocarbon fuelled vehicles, their use imposes new challenges at the end of vehicle life and the need for specific Hong Kong guidance and outlets and choices for recycling locally are lacking . Popular models such as Tesla, BMW, Nissan have been available in the market-place for more than a decade and experts are estimating increases in battery tonnages needing treatment as the first generation of vehicles reach the end of life.

EV batteries are typically large lithium-ion batteries and contain valuable material such as cobalt and nickel that can be recycled at high recovery rates. For reasons of both safety and sustainability, these batteries must be recycled or carefully disposed. The none standardization of EV batteries means that other materials often present in the battery construction such as plastics, copper and aluminium are often not cost effective to recover and need specific treatment prior to disposal.



Recycling method comprise "Pyrometallurgical" processes that subject the materials to very high temperatures in a furnace to recover some of the component metals or "Hydrometallurgical" processes that subject the battery parts to chemical solutions dissolved in water to leach out the desired metals.

Given the lack of outlets for recycling or re-purposing of EV batteries in Hong Kong, it may be more appropriate that batteries are re-purposed as opposed to recycled for secondary storage uses. Nissan piloted this idea by using new and old batteries from their EV models to power the Ajax Amsterdam soccer stadium. Given the increasing appeal and ownership of EV's in Hong Kong, the industry and government need to put in place the necessary policy measures to promote recycling and re-purposing and target pilot projects to demonstrate how circularity principles can be implemented.

Opinion

MSW Charging – Let's Make it Happen

The Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Ordinance 2021 to implement MSW charging was passed by the Legislative Council (LegCo) on 26 August 2021. More than two years have now passed whilst the Government have engaged in communication with all sectors of the community and established the production and distribution mechanisms for the designated disposal bags.

The launch of the MSW Charging Scheme planned for 1 March 2024 has now been further deferred until 1 August 2024. with Government citing the need for further communication following concerns on the practical implementation procedures of the scheme for specific sectors of the community. The MSW Charging Scheme adopts a fundamental principle of 'Polluter Pays" to drive behavioural change that will promote enhanced recycling / recovery and to reduction in waste disposal.

Food and beverage operators have cited increase operating costs, associated with quantities of waste they generate needing to be disposed of in designated bags. The transition to the new scheme will need a change in thinking to promote the reasons and benefits that will result from a change in behaviour in all sectors of society and business. Embracing the scheme also brings opportunities for businesses and society to actively mange the waste they dispose and could ultimately result in improved choice for customers and enhanced profitability if managed effectively. The MSW Charging needs the entire community to embrace change and communication should focus on positive outcomes that can be achieved rather than charges and penalties for non-compliance.

HKWMA is of the strong opinion that the MSW Charging Scheme should be launched without further delay since actual implementation will enable everyone to truly identify teething issues that will inevitably arise and enable incremental improvement of the scheme. Implementation will bring waste reduction, recycling and responsible consumption to the forefront of people minds.



Opinion

Decarbonisation Tour of Japan

14-18 March 2023

The HKWMA joined representatives from the Hong Kong Federation of Industries for a 5 day Decarbonisation Tour in Japan between 14 to 18 March 2023.

The objective of the tour was to study decarbonisation and engineering technologies applied in Japan by means of visiting of food waste plant and recycling facilities, attending a De-Carbonisation Expo and exchanging experience with relevant Japanese Government Officials, Professionals and Business Representatives.

The tour also promoted international cooperation, cultural exchange and obtained mutual understanding of the decarbonisation developments and challenges.

Main activities of the tour comprised:

- Visit to the Ginza 6 Waste Source Separation and Charging Scheme that comprised a development that designates the basement for source separation of MSW and food waste activities by tenants and adopts a charging scheme that attracts credits for tenants with compliant behaviors;
- Visit to De-carbonisation Expo and Business Matching that allows a glimpse of how the application of different technologies, e.g. hydrogen has started their impact in auto industry, fuel source for heavy equipment to powering an entire hotel operation.
- Visit to Kawasaki Biomass Electric Power Limited, a 33MW biopower project located in Kanagawa and the largest biomass to energy plant in Japan.
- Visit to Food Waste Plant - Alfo Company Limited; it turns 140t/d food waste into 25t/d formula feed for the poultry & pork industry.
- Meeting with Trade Association Japan Expanded Polystyrene Association (JEPSA); and the facility used to process Styrofoam boxes from the adjacent fish market which are compressed and re-cycled to become Refuse Derived Fuel (RDF).



Delegation Group Photo



Food Waste Plant Operated by Alfo Company Limited

News

YMC Visit to End of Life Battery Recycling Facility

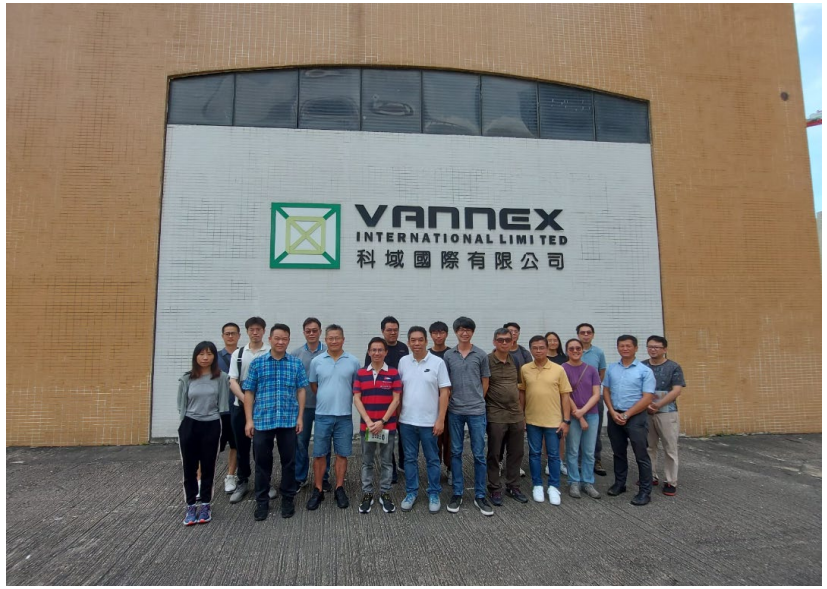
22 July 2023

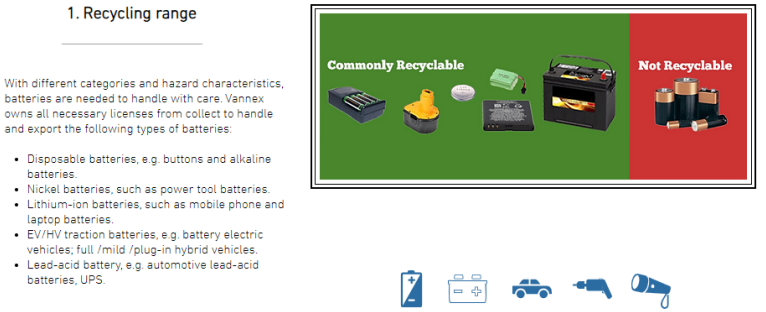
Technical Visit Report: Vannex End-of-Life Batteries Recycling Facility

HKWMA organized a technical visit to Vannex End-of-Life Batteries Recycling Facility on 22nd July 2023. This technical visit aimed to gain insights into the challenges faced by Hong Kong in managing electronic waste, especially batteries. As the city's population and economy continue to grow, the generation of electronic waste, which includes batteries containing valuable metals, has become a significant concern. Improper disposal of batteries in landfills can lead to environmental contamination and health hazards. The leakage of chemicals from batteries can pollute soil and water resources, endangering both humans and the ecosystem. Additionally, the rapid increase in electronic waste puts a strain on the existing waste management infrastructure, further compounded by limited public awareness and participation in battery recycling efforts.

During the visit, Vannex provided an introduction of local collection, recycling, and waste management solutions for electronic and electric equipment, with a specific focus on different types of batteries. We appreciated the meticulous sorting process, which included various battery types such as alkaline batteries, nickel batteries like those found in power tools, lithium-ion batteries commonly used in mobile phones and laptops, EV/HV traction batteries present in battery electric vehicles and full/mild/plug-in hybrid vehicles, as well as lead-acid batteries like automotive lead-acid batteries and UPS. Vannex showcased commitment in following environmental regulations and safety protocols, guaranteeing the appropriate handling of hazardous materials.

The technical visit to Vannex's End-of-Life Batteries Recycling Facility shed light on the critical importance of effective battery recycling and appropriate handling practices in Hong Kong. It underscored the necessity for comprehensive waste management systems, increased public awareness, and collaboration among relevant stakeholders. The responsibility for promoting a greener and more sustainable future lies with the public, as we can actively engage in the recycling of electronic waste. This collective effort holds the key to creating a cleaner and healthier city for future generations.





YMC

30th Annual General Meeting

27 September 2023

The **30th Annual General Meeting** (AGM) was conducted in-person on 27 September 2023 at the United Services Recreation Club, resulting in significant turn out, with over 60 members attending in person to enjoy re-connecting with friends and business partners.

The outgoing Chairman, Norman Cheng, commenced the meeting by welcoming the guest of honour, Mr Samuel Chui, Director of Environmental Protection Department.

Formal proceeding commenced with approval of the previous AGM minutes and a summary of events conducted by HKWMA during the last year. HKWMA had been a strategic knowledge partner with Re-Think Hong Kong and our representatives were panel members and moderators for waste management The YMC successfully arranged site visits to Vannex End of Life Battery Recycling Facility as well as new initiatives aimed at linking professionals and students to discuss waste management matters in an informal environment.

The Chairman was optimistic that more activities could be possible in the year ahead and encouraged members to engage with **Re-Think 2024** which the HKWMA was again co-organising specific topical sessions.

The Chairman reported an increase in membership to 385 members and re-affirmed the ambition of the association to attract young talent to join the HKWMA.

The Treasurer reported a surplus in the associations overall financial balance, despite membership fees for the previous year being waived. Members approved the financial report and appointed of the auditor.

In accordance with the HKWMA Charter, Norman Cheng as Chairman and Lawrence Cheung as Treasurer stood down this session. The Chairman expressed his appreciation for their service and requested members to show support for those members standing for election and/or re-election. Andy Chan and Rex Lai were duly elected. The Chairman also requested members to approve the nomination of his successor, Prof Dan Tsang, as the incoming Chairman for the next session.



AGM Audience



Dr Samuel Chiu Delivering his Key Note Speech to Members

Event

30th Annual General Meeting Cont'd

27 September 2023

Members endorsed the nomination and the new Chairman deliver his acceptance speech and expressed his gratitude to the outgoing Chairman.

After the formal proceedings, The Chairman invited the guest of honour Dr Samuel Chiu, Director of Environment Protection and Ecology to deliver his key address to members. The address focused on the government's ongoing commitments to environmental governance as well as their aspiration set-out in the Waste Blueprint 2035 for waste reduction, resource circularity and zero landfill.

Dr Chiu outlined the importance of MSW Charging and Public Responsibility Schemes. These policies will be central to the Government's effort to achieve the strategies for treasuring resources, practice recycling and incentivise waste reduction. Dr Chiu outlined the preparatory work being implemented to put in place the designated bags and labels and the necessary training, guidance and education that will be fundamental to the scheme. At the time of the AGM the official MSW Charging launch date was 1 April 2024, although this has subsequently been revised to provide more time for education since it will impact everyone and it was acknowledged that it would take time for the public to adapt to the new system.

PRS schemes were also advocated as key policy tools for eco-responsibility and to encourage producers to recycle end of life products and engage with circular economy principles. Dr Chiu indicated that three PRS scheme for plastic bags, WEEE and glass beverage containers are currently in place and EPD had plans to build up the success of these scheme by increasing the levy on plastic bags, increasing the coverage and scope of WEEE to include dehumidifiers, washing machines and dryers. Dr Chiu indicated that future PRS will be market based and policies for plastic tableware, plastic containers and retired EV batteries were being formulated for implementation in the coming years once necessary statutory procedures have been completed.

Dr Chiu acknowledged the support of the HKWMA and requested that the industry continue its close collaboration with Government.

Rethink Hong Kong 2023,
14th September 2023











The 4th Edition of Rethink HK 2023 was held on 14th September 2024 and attracted an increased attendance post COVID-19, with over 8,000 attendees participating in the event, and over 1200 organizations represented.

The Hong Kong Waste Management Association has continued its role to co-organise sessions associated with Waste Management, with five of the Executive Committee (ExCo) members including our Chairman Ir Norman Cheng attending as speakers or moderators.

Our chairman Mr Norman Cheng moderated the session for innovations and collaborations for our zero landfill vision in direct response to the recently published Government Waste Blueprint for 2035 that adopts a zero waste to landfill vision, Exco member Mr. Victor Li facilitated the panel discussions on designing out waste and innovative manufacturing, ExCo member Mr. Kenny Wong shared experience with plastic beverage bottle recycling as part of the session on circular journeys with consumers; and ExCo member Louis Chan was speaker for Our Waste free Future.

The event provided a platform for our Exco members to share industry best practice from their personal professional perspectives as well as the specific initiatives being pursued and adopted by the firms they represent. Rethink has focused the communities thoughts on the importance of waste management and re-envisioning waste as resource that should be reduced, reused, repaired, recycled, recovered and re-purposed before any considerable given to disposal.

Rethink continues to be Hong Kong's best attended and most ambitious business event for sustainable development. See you in ReThink HK 2024!

Focus

BioChar Conference,
15 November 2023

On November 15, 2023, a Biochar Promotion Conference was held in Causeway Bay, signifying a pivotal step towards sustainable waste management, circular economy and carbon neutrality for the city. The event, co-hosted by Environmental Protection Department (EPD) and Binnies Hong Kong Limited, showcased the potential of biochar as a sustainable solution for waste management and carbon sequestration.

Dr. Samuel CHUI, Director of Environmental Protection, inaugurated the conference with an opening speech emphasizing Hong Kong's commitment to achieving carbon neutrality by 2050, as outlined in the "Hong Kong Climate Action Blueprint 2050" released in October 2021. Dr. Chui highlighted the newly operational Biochar Center at the EcoPark, which processes wood waste from Y·PARK, another of EPD's facility currently processing yard waste collected throughout the city, into biochar, thus aligning with the government's vision of waste-to-resource facilities.

Alex Law, Managing Director of Jardine Engineering Corporation (JEC), the contractor of the Biochar Center, took the stage to elucidate the advantages of biochar and the functions of the Biochar Centre at EcoPark, setting a positive tone for the conference.

Andy Chan from Binnies Hong Kong Limited, the consultant for the development of the Biochar Centre, shared an insightful presentation on the history of biochar. He delved into its benefits, including how biochar achieves carbon sequestration and its diverse applications, supported by international case studies.

Ir Prof. Dan Tsang from HKUST continued the narrative by discussing cutting-edge biochar research and its multifaceted applications, ranging from soil amendment to hazardous waste treatment, and its role in advancing carbon neutrality in Hong Kong.

The conference paused for a well-received break where attendees networked and exchanged thoughts on biochar applications, while also receiving souvenirs that were produced at various waste recycling or treatment facilities in Hong Kong, including biochar samples from the Biochar Centre, wood chips from Y·PARK, compost from O·PARK1, and fertilizers and dried larvae produced at Black Soldier Fly (BSF) Hatch. Conference participants were

Kenny Tso, CEO of BSF Hatch, shared the benefits of combining organic waste with biochar in composting, along with findings from planting trials and laboratory tests.



Inauguration by Director of EPD and Panel Discussion

Learning

BioChar Conference,
15 November 2023 Cont'd

Shawn Cheng of FoodCycle+ took the opportunity to explore the integration of biochar in modern agriculture, presenting new horizons for sustainable farming practices.

A riveting session followed, led by Prof. Jonathan Wong as the MC, where local users shared their firsthand experiences with biochar in various settings. Notably, Savills Services Group discussed using biochar for green roofs, PlantPlant Holding detailed their success with biochar in soil-less potted plants, and CityU Farm shared their strategy for minimizing odor from cow manure with biochar.

The Biochar Promotion Conference concluded with a strong message of collaboration between the government and private enterprises, encouraging participants to engage with the "Biochar Pilot Scheme" and innovatively apply biochar across industries, harnessing benefits in soil amendment and contributing to the collective goal of carbon neutrality.

This conference has undoubtedly set the stage for a biochar revolution in Hong Kong, promising a greener, more sustainable future for the city and its residents..



Delegates Examining the Sample BioChar



Learning

Let's Talk Rubbish

9 March 2023

Let's Talk Rubbish is an informal discussion forum that endeavours to provide a platform for members to have active discussions on what obstacles are hindering the waste industry and explore potential collaborations to help reduce waste in Hong Kong. Waste is created in everyday life and accounts for roughly 7% of carbon emissions in Hong Kong. How can we contribute to cutting carbon emission from waste?

Our first discussion platform /social gathering event was successfully held on the 9th March 2023 at restaurant Capo. Hosted by our chairman, Ir Norman Cheng, the event provided a casual occasion to discuss while serving with delicious western food and free flow for waste management professionals, sustainability professionals and students to exchange ideas revolving around these 3 waste management topics:

Question 1: What are the opportunities for the waste industry to achieve decarbonization?

Throughout the discussion, one of the main drivers for decarbonizing the local waste industry is to incentivise companies and waste producers to act on the policy with innovation, such as upcycling plastic bottles, waste to energy technologies and other low-carbon alternatives. It is also crucial to maintain transparency within the waste management industry to prevent stakeholders from falling into the greenwashing trap.

Question 2 : How to attract young people to join the industry?

Only with better promotion / marketing and professional qualification can the companies attract more new blood and pave their career paths in the waste industry. Waste management is more than just collecting waste, which requires a comprehension of engineering, scientific and business know-how in order to manage waste sustainably and effectively. Further engagement with students from various disciplines is encouraged by jointly working with local institutions, along with other professional organizations, such as HKIE to accredit the works of waste management professionals. As mentioned, waste management companies can advocate their missions in contributing to sustainability in Hong Kong, with less greenwashing and more doings.



Members Enjoying the Event

Event

Let's Talk Rubbish

9 March 2023 Cont'd

Question 3 : What can HKWMA do to help in future or what would you like HKWMA to do, say in the next 12 months (e.g. site visits, seminars, etc ?)

Lastly, HKWMA provides a platform for fostering exchanges between different stakeholders within the Hong Kong waste industry. We will continue to serve the members and the public by organizing discussion forums, technical visits in local waste management facilities to promote the local waste industry. Through interchanging ideas and experiences among waste management professionals, we can create a vision and mission to pass the torch to the next generation.

Close to 40 HKWMA members attended, and all participants were actively engaged in the discussions and found common grounds on the respective questions, such as more incentives for facilitating decarbonization with innovative technologies, be mindful of greenwashing, professionalising waste management practitioners and more marketing in schools. Under the facilitation of our Chairman, the event was well received and we collected insightful responses on the respective topics.

In summary, the event went extremely well and everyone had an enjoyable evening. Considering all the support and positive feedback from participants, HKWMA will continue to organize similar events on a more regular basis in the future, stay tuned!





Members Debating the Questions

Event

Events for Your Diary





Events

The Cartoon


WHERE SHOULD WE RECYCLE ALL OUR AMAZON PRIME BOXES?
JEFF BEZOS


That's one small step for man
And one giant heap left behind!
RECYCLE
CS127835