

29th December 2015

Dear Hon Members, See the 'real' landfill life numbers if we remove the food waste content

Of course if we remove the daily food waste from the landfill equation by using the industrial-garburate-to-sewer option (as recommended by CIWEM UK), here are the numbers:

3,600 m3 food waste per day x $365 = 1,314,000 \text{ tonnes per annum that does no need to go to landfill (+ resultant methane production + venting + piping)$

Using the data below of current 5.1 million tonnes MSW per annum to landfill and deducting the food waste leaves 3.786 million tonnes per year to landfill; yet that is if No Zero Waste or source separation measures or local increased recycling are taken by Government ENB (which of course means they are not doing their job)

We currently (should) have 37 million cubic meters capacity at our landfills without the extensions already approved so, @3.786 million tonnes per annum we would have 9.77 years before the 3 landfills, without any extensions, are full.

Adding the already approved 3 landfill extensions (111 million m3) + current 37 million m3 =

<u>148 million m3</u> = 39 years of landfill capacity 3.786

Three bio digesters are planned (at great expense) but the higher quality food waste from malls could be diverted from the industrial-garburate-sewer system to the bio digesters. Using wet market food waste @ 90% water content at the bio digesters would be a disaster and burn more electricity than could be generated, let alone the resultant fish food poor unsaleable quality.

The Panel should demand an independent study of the landfill figures to see whether our figures are ballpark or not. Either way, the current provided figures and landfills' supposed expiry dates do not add up.

Kind regards,

James Middleton

Chairman

www.cleartheair.org.hk

The 'Real' Landfill capacity numbers

dynamco Dec 29th 2015 11:16am Online comment

HK's 3 landfills capacity new(million m3) from published figures

SENT 43

NENT 35

WENT 61

Total 139m m3 capacity

MSW received @approx 13,800 tpd @1.1 tonnes per m3/with landfill efficiency 90% = 13800/1.1/0.9/365 = 5.1 m m3 filled /year since 1995

20 x 5.1 = 102m m3 used up leaves 37m m3 current space

Add already approved landfill extensions:

SENT 15

NENT 25

WENT 71

Total 111m m3

gives us 37+111 = 148 million m3 remaining capacity

W/O incineration W/O Zero waste policies = remaining landfill life of 148 /5.1million per year = 29 years, which seriously conflicts with Govt doom –gloom 'figures' & its flawed reasoning for the 'need' for an incinerator

1 incinerator processing 3000 T/day will reduce 1.1 million Te/year to say 0.4 million(30% ash) our generation rate falls to 5.1 – 1.1 + 0.4 = 4.4 million/ year giving a landfill life of 143/4.4 = 33 years

If we have 2 incinerator processing a total of 6000 T/day this will reduce 2.2 million Te/year to 0.8 million (30% ash) our generation rate falls to 5.1 - 2.2 + 0.8 = 3.7 million/year giving a life of 143/3.7 = 39 years

Conclusion

Incinerators don't really help a lot w/o a use for all the ash but, we do gain the electricity if CLP can be forced to buy it Meanwhile HKG's ultra wet waste needs more energy to burn so less to sell.

Incinerators only delay the landfill problem by 5 or 10 years at most & is flawed policy

We need Zero Waste policies with source separation of waste legislation

dynamco Dec 29th 2015 11:27am online comment

what about the source separation of waste legislation?

what about the Zero Waste policies?

if the food waste was separated dry recyclable paper, cardboard, glass etc would remain

the food waste can be collected, taken to transfer stations & garburated and fed into the sewer system

Our daily waste water level is 1.4m cubic meters

Stonecutters can handle 2.7m cubic meters per day

3600 cubic meters of food waste would take only 5 minutes to pass thru the plant & most of it would have been eaten up by bacteria before even arriving there

www.ciwem.org/knowledge-networks/panels/wastewater-management/food-waste-disposers.aspx

But if we separate the food waste, then Govt collects & recycles the dry recyclables, there would not be enough left to burn under the Govt flawed current incinerator policy



Moreso, 30% of what is burned by weight remains as ash that needs landfilling

However as in a recent televised Legco meeting serious doubts were raised on the real remaining landfill capacity - the Govt lied about this as it also lied about 'real' local recycling levels when operation Green Fence exposed the imported transit waste to China was added to local 'recycling' stats

Moreover IPCC reports show for every tonne of MSW burned, 0.8-1.2 tonnes of CO2 are released to air - what was baldylocks pontificating about reducing CO2 by 2020?

www.epd.gov.hk/epd/english/environmentinhk/waste/pub consult/landfill backgr r01.html

"the 3 landfills will be full between 2012-2018"

South China Morning Post 南華早報

Published on South China Morning Post (http://www.scmp.com)

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Pollution, food waste and heavy traffic: what Hong Kong's chief executive should focus on in 2016

PUBLISHED: Monday, 28 December, 2015, 4:36pm UPDATED: Monday, 28 December, 2015, 4:36pm Comment> Insight & Opinion

Edwin Lau

Edwin Lau says Hongkongers shouldn't hesitate to let Leung Chun-ying know what he can do to make Hong Kong a more liveable place

Chief Executive Leung Chun-ying's invitation to the public to contribute their views to his preparation for the upcoming policy address is a wonderful opportunity to suggest ways to make Hong Kong more liveable.

READ MORE: How China, the 'world's largest polluter', is taking on climate change [1]

Climate change is a pressing global challenge. At the <u>UN climate summit in Paris</u> [2], 20 countries including China and the US launched the <u>Mission Innovation</u> [3] initiative with a collective commitment of US\$20 billion to accelerate global clean energy innovation. So how much will the Leung administration commit to the climate challenge?

Here are some suggestions of what we can do:

- Vegetation targets. Hong Kong is fortunate to have a natural carbon sink in our country parks, as long as we don't allow housing development to encroach on them. We should set targets for vegetation coverage in the country parks and throughout the city.
- Des Voeux Road Central. To improve air quality, congested Des Voeux Road Central should be turned into a <u>vehicle-free zone</u> [4], with water features to mitigate the concrete-jungle feel. This would persuade people to walk or take public transport, which is good for public health. Leung should learn from the South Korean government, which removed an elevated highway in Seoul's city centre to revitalise the Cheonggyecheon stream, now an urban park.

READ MORE: Hong Kong's waste problem: a stinking trail of missed targets, data errors and misdirected efforts [5]

• Food waste. More than 3,600 tonnes of food waste is created daily in Hong Kong. Although our government plans to build three organic waste treatment facilities between 2016 and 2021, the total daily capacity they can handle is only 800 tonnes, or 22 per cent of our food waste.



Hong Kong still does not have a waste charging law. If food waste recycling was made mandatory, all private food waste recyclers would operate round the clock to help achieve the government target of reducing food waste disposal at landfills by 40 per cent by 2022.

- Energy efficiency. Publicising the energy utilisation index of all buildings would be a cost-effective way to encourage these buildings, through peer pressure, to improve their energy efficiency. Currently, the law requires only commercial buildings to declare their index, whereas government buildings are exempted.
- Energy savings. There should be a government-led programme for generating "negawatts" energy saved instead of consumed, which is the cleanest energy of all. If Hong Kong's 7 million residents each generate just one "negawatt" a day, Hong Kong would save 1.7 million tonnes of carbon dioxide a year.

The question is, will Leung take the lead and implement these suggestions?

Edwin Lau Che-feng is a veteran environmentalist



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