

將軍澳屋苑大聯盟

立法會全體議員：

環境局局長黃錦星先生：

各大環保組織及團體（長春社、綠色力量、地球之友、綠領行動、世界綠色組織、環保觸覺、創建香港、綠色和平、新界關注大聯盟等 [排名不分先後]）：

《將軍澳屋苑大聯盟向立法會議員發出的公開信》 商討擴建將軍澳堆填區之前，環境局必須做的 10 件事

1. 履行落區承諾，收集受影響居民意見

去年政府擴建計劃「觸礁」後，政府曾公開承諾落區收集居民意見。唯黃錦星只到過屯門及元朗兩區，卻從未到過「最受堆填區影響」的將軍澳。去年 9 月，黃錦星更與西貢區議會閉門會議，禁止市民、傳媒旁聽，甚至阻止反擴堆填區的區議員進場開會。

我們是最受害的一群，堆填區深深影響我及家人的健康。我們要求擴建計劃放上立法會之前，環境局局長黃錦星必須履行承諾，落區與將軍澳居民接觸及商討改善措施。

2. 落實新界東南堆填區關閉的時間表

環境局在新界東南堆填區操作年期上多次「亂估」：

- 2004 年西貢區議會文件 SKDC(M)18/04-05，環境運輸及工務局廖秀冬年代指堆填區於 2011 年滿溢；
- 2005 年環境局的環評報告(合約編號：CE10/2005EP)，指堆填區於 2012 年停止接收廢物；
- 2006 年立法會文件 IN37/05-06，同樣是環境運輸及工務局廖秀冬年代指堆填區的操作至 2007 年完成；
- 2008 年立法會文件 CB(1) 88/08-09(06)，環境局邱騰華年代指堆填區於 2012 年至 2013 年滿溢；
- 2014 年立法會文件 CB1/SS/6/13，環境局黃錦星指堆填區於 2015 年尾滿溢。

作為一個政策局，環境局在計算堆填區操作年期上毫不專業、甚為兒戲，多次令將軍澳居民出現錯誤期望。由於多次被欺騙，我們對環境局再次預計擴建後的新界東南堆填區使用壽命會延至 2020 年表示「極度懷疑」，我們要求環境局向公眾交代確實關閉時間表，並刊登憲報確認。

3. 改善進出堆填區的泥頭垃圾車所帶來的交通、環境、衛生問題

現時，環保大道是出入將軍澳多個屋苑、工業邨及堆填區的唯一通道，每天進出堆填區及填料庫的泥頭垃圾車多達 4 千部，引致環境及空氣嚴重污染、塵土飛揚、路面險象橫生，懸浮粒子 PM2.5 更嚴重超標。因此，唯有終極關閉堆填區、或所有垃圾透過水路運送至堆填區，才能徹底解決泥頭垃圾車造成的問題。

為此，我們要求環境局安排以水路形式運送所有至堆填區的垃圾。若環境局向受影響居民釋出誠意、處理好以上問題後，屆時我們會考慮與局方商討堆填區計劃。

4. 廣泛獲得地區共識及支持

早於 2010 年西貢區議會已跨黨派及獨立議員通過動議「政府在未能解決臭味、交通、環境衛生問題，及未能在將軍澳所有屋苑全面諮詢，獲得居民支持前，本會堅決反對新界東南堆填區之擴建計劃」(文件 SKDC(M)116/08 號)。但環境局卻多次對外訛稱，指 2011 年 5 月 3 日西貢區議會上大部分區議員均支持或不反對堆填區擴建。事實上，西貢區議會從未議決支持擴建方案。

相反，城市規劃委員會曾於 2011 年就新界東南堆填區(將軍澳分區計劃大綱草圖編號 S/TKO/18)諮詢公眾，結果收集到 2 千多項反對意見。由此可見，新界東南堆填區擴建方案從未獲地區的支持或共識。我們要求環境局就擴建方案先於將軍澳區作全面諮詢。

5. 支助將軍澳屋苑回收及改善配套

由於長年受堆填區問題滋擾，將軍澳居民有極高的環保意識，早已養成回收習慣。將軍澳多個屋苑早已推行各種有分類的回收計劃，如廚餘、廢紙、金屬、玻璃樽等，成效顯著。唯環境局對區內屋苑回收支援不足，「屋苑廚餘循環再造項目」成效不彰，「社區回收推廣車先導計劃」斷樞禾蟲。居民雖有心響應，但回收無以為繼。

事實上，將軍澳屋苑絕對願意帶頭回收減廢，唯政府對屋苑回收可謂「零」支援，現時多個屋苑(如將軍澳中心)只靠自發回收廚餘。我們要求環境局在徵收垃圾費、推出堆填區擴建之前，先統籌全港屋苑的回收計劃，並把將軍澳納入試點之一。

6. 沼氣轉煤氣立即上馬

早於 2009 年，政府已完成跟煤氣公司討論，把新界東南堆填區的沼氣淨化用作生產煤氣之用。此舉可將堆填區沼氣轉為有用的能源，同時可減少空氣污染物。至今已 5 年時間，但目前堆填區依然 24 小時燃燒沼氣，區內居民飽受堆填區所排放的二氧化碳、硫化氫和碳氫化合物等氣體之苦。

我們要求環境局在推出擴建方案之前，應先處理好區內原有堆填區的排放沼氣問題，立即把堆填區的沼氣轉為有用能源，惠及香港市民。

7. 環評落後，要求重新評估

新界東南堆填區擴建計劃的環評報告於 2005 年進行時，附近還未有民居，直至 2009 年始有居民陸續遷入。現時，鄰近的 85、86 區已發展了近 10000 個住宅單位，居住人口還不斷增加。2005 年的環評報告中所指的「輕微」影響早已不合實際，將軍澳堆填區及 137 填料庫運作帶來的污染、臭味對附近居民的實際影響比當時的環境評估大得多。

所有政府的大型工程上馬，必須製作與時並進且公正的環評報告。鑑於現時將軍澳 85 區、86 區的情況與 2005 年時截然不同，我們要求環境局不要自欺欺人，重做的新界東南堆填區環評報告。

8. 增加建築物廢料收費

近年大型基建項目、公共房屋陸續興建，令建築廢料大增。然而，政府對公私營的基建工程所製造的建築物廢料均無規管，對新界東南堆填區造成沉重壓力。

去年，政府妄顧西貢區議會及市民的強烈反對，「霸王硬上弓」把 137 填料庫的運作延期至 2018 年。加上環境局計劃於擴建建築垃圾的堆填區，導致現時新界東南堆填區及 137 填料庫處理全港近 70% 的建築廢料。運載廢料的重型車對區內交通幹道的衛生和安全構成沉重壓力，路面不時出現凹陷情況，釘板泥頭周街跌。將軍澳隧道每日車流量已達 9 萬架次，設計上限為 7.8 萬架次，遠超負荷。

建築廢物處置收費已多年(自 2006 年)沒有調整，加上本港的收費水平比其他國家訂立為低，因此調高收費、加強監管是必須的。我們要求環境局增加建築物廢料收費，減少堆填區的沉重壓力。

9. 禁止所有可循環再造物料運送往堆填區

政府的減廢回收工作相當被動，在各方經年累月爭取下，當局方於今年 1 月擴大玻璃樽回收試行範圍，但未見推廣至全港的決心，還有大量玻璃樽需堆填處理。另外，建築廢料早應實行回收，木材、金屬製品、玻璃窗均可回收再造。

現時可循環再造的物料以堆填處理，不單佔用了大量堆填空間、且浪費珍貴資源。為此，我們要求環境局禁止所有可循環再造物料運送往堆填區。

10. 政府部門帶頭採用循環再造物料

要確保本地環保及循環再造業可持續發展，政府應帶動整個社會使用循環再造物料的風氣，所有政府部門牽頭採用更多環保及循環再造產品，從而推動其市場發展，令再造產品有價。在所有新的公共工程、政府建築物及公共屋邨，我們要求政府普及使用循環再造物料，起示範作用。

總結

全港三個策略性堆填區之中，新界東南堆填區最接近民居，距將軍澳工業邨(TVB 電視城、壹傳媒、香港電視等)更只有一街之隔，嚴重影居民健康，更為醫療系統帶來沉重負擔。將軍澳居民為香港整體利益，已肩起處理全港垃圾三十多年的責任。即使政府推出擴建計劃，我們也並不是盲目反對，而是「舊債未清，新債免問」。我們要求在商討擴建之前，政府必先妥善處理堆填區引伸出來的一連串問題。

在此促請全體立法會議員，請監督政府在民生議題上行駛「應有之義」，促使環境局先做好以上 10 件事，展示政府解決問題的決心後，才商討擴建新界東南堆填區的申請。



維景灣畔業主委員會

都會駅業主委員會
副主席

君傲灣業主委員會
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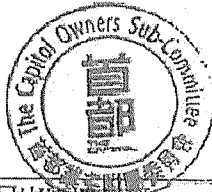
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2014年4月13日

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From: "Tom Hope" [REDACTED]
Date: 04/15/2014 08:31PM
Cc: "Living Islands Movement" <info@livingislands.org.hk>, <cb1@legco.gov.hk>, "Martin Williams" <martin@drmartinwilliams.com>
Subject: Public Works Sub-committee meeting 16 April 2014 - reasons not to endorse the 3+1 landfill expansion + incinerator for Shek Kwu Chau
(See attached file: 140317_SKC_Brochure_A NECESSARY EVIL_Legco_submission.doc)

Dear Panel Members,

Here are 3 simple and compelling reasons to vote against this proposal:

1. For a fraction of the cost, a territory wide scheme can be implemented to separate out all organic waste for alternative disposal, thereby DOUBLING THE LIFE OF EXISTING LANDFILLS. Such a separation scheme was successfully implemented in Taiwan within 1 year; there is no reason why Hong Kong should not do the same now, if the political will is there.
2. For a fraction of the cost, plasma gasification facilities can be built on or next to the existing landfills with equivalent capacity to the proposed incinerator on SKC. These facilities can be operational within 2 years of inception ie by 2017 latest, at least 4 years before the proposed incinerator can come on stream. These facilities will send NO residues to landfill and can be used to RECLAIM landfill by back-mining; the proposed incinerator, by contrast, NECESSITATES expansion of existing landfills to take the toxic ash residues.
3. **In summary, with the political will to separate out organic waste and implement appropriate technology in timely fashion, there is no need to extend the landfills, which can over time be reclaimed for residential, business or other beneficial uses.**

To know more about plasma gasification and why it is a mature technology far more appropriate for Hong Kong than the proposed incinerator, please read the attached paper entitled 'A NECESSARY EVIL?'

Yours sincerely,

Tom Hope (HK resident since 1988, HK & England/Wales solicitor, supporter of the New Territories Concern Group).

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A NECESSARY EVIL?

**(WHY MASS-BURN INCINERATION IS EVIL BUT NOT NECESSARY
FOR HONG KONG'S FUTURE MANAGEMENT OF WASTE)**

WHAT EXACTLY IS THE 'EVIL'?

The HK administration says it is a 'necessary evil' to put a mass-burn incinerator on Shek Kwu Chau island.

We agree that this is an 'evil'. We don't agree that it is 'necessary'.

WHAT'S EVIL ABOUT IT?

The HK administration's proposal is evil because:

- It will not solve the problem of landfill exhaustion
 - Up to one third of incinerated MSW comes back out as toxic ash which, after further treatment, goes into landfill
 - It cannot come into operation until 2021/2, 3 years after the last landfill is exhausted (on current government projections).
- It means the permanent destruction of coastline zoned for conservation and remarkable for its natural beauty.
- It will be very expensive to build and it will run at a significant loss, year-on-year.
- It will have a significant impact on HK's air quality.
- It wastes HK's Municipal Solid Waste (MSW) by treating it as a problem instead of a resource.
- It requires a constant supply of MSW (3,000 tonnes per day) to operate efficiently, and so will not encourage waste reduction.

WHAT ARE THE EVIL ASSUMPTIONS WHICH MAKE THE ADMINISTRATIONS' INCINERATOR PROPOSAL SEEM 'NECESSARY'?

- **Assumption 1:** *"MSW is a problem, not a resource."*
- **Assumption 2:** *"There's no time to waste in testing other options because we are running out of landfill."*
- **Assumption 3:** *"HK will have to live with a poorer environment until longer term solutions are found."*

Each of these assumptions are 'evil' because they are each untrue and they each support the notion of the MBI incinerator as a 'necessary evil'.

But that evil is not necessary – and here's why ...

WHY THE EVIL IS NOT NECESSARY

- **With a more rigorous policy of Reduce-Recycle-Reuse, there can be much less MSW to dispose of.** The Administration admits this. When asked how it will cope between 2019 (when it expects to exhaust all landfill) and 2022 (when the SKC incinerator comes onstream), EPD says it will rely on more stringent waste management to prolong landfill life. That's tantamount to admitting it could have done much more much sooner to reduce levels of MSW in Hong Kong.
- **By using a different technology in a different location, the residual MSW can be transformed into useful energy:**
 - with no toxic outputs
 - at a quarter (or less) of the cost
 - no later than 2017 if approved now
 - with no permanent damage to any part of Hong Kong
 - with no deterioration of air quality
 - operating at a profit year-on-year

WHAT IS THE DIFFERENT ('NON-EVIL') TECHNOLOGY?

There are many alternative technologies to MBI in terms of non-polluting and environmentally preferable effects.

However, there is one kind of technology which is especially preferable to meet HK's current MSW needs. This technology (of which there are variants but all use essentially the same methodology) is referred to for convenience as Plasma Gasification (or Plasma Gas for short).

Plasma Gas is preferable to MBI because it has all the benefits listed above and:

- because it has no toxic emissions, it can be located anywhere
- it can be installed on a modular basis, with standard units operating in series
- it can be built up incrementally using a smaller land footprint.
- because it is more efficient in converting waste to energy, it can operate at a profit
- because it can be located next to landfill, that landfill can be mined and so reduced – and transformed into profitable energy.

So, as and when more rigorous waste management policies make it unnecessary to build more Plasma Gas capacity, existing Plasma Gas facilities can continue to operate profitably transforming MSW from – and so gradually eliminating – existing landfill.

In other words, Plasma Gas:

- **is not a 'necessary evil'; but**
- **is an 'incremental benefit', a non-toxic cost-effective safety net for dealing with excess MSW: a 'win win' for Hong Kong, using appropriate technology to maximum environmental and business advantage.**

WHAT IS PLASMA GAS TECHNOLOGY?

To understand Plasma Gas, it helps to understand how it's different from MBI.

MBI is a combustion process which uses an excess of oxygen and/or air to burn the MSW. The mass burn process operates with an excess of oxygen present and is therefore a combustion process.

Plasma Gas, by contrast, depends on having no oxygen. It does not burn the MSW. Instead it turns 99% of the MSW into gas, using plasma arc torches to create very high temperatures (typically 4000°C - 7000°C). This 'syngas' can then be converted into energy.

The remaining 1% of the MSW produces a rock-like by-product called vitrified slag. This byproduct is safe and can be resold as building material. It need not go to landfill.

IS PLASMA GAS AN ESTABLISHED TECHNOLOGY?

Yes. The Plasma Gasification technology has been industrially applied worldwide for 30+ years.

HK's administration says it has considered and discounted this technology on the advice of Aecom HK, the external consultants hired by EPD to handle the technical and environmental aspects of implementing the SKC incinerator project.

Aecom is an international consultancy. Here's what its US division says about Plasma Gas:

"We believe that this technology is not only environmentally friendly, but ready for large-scale commercialisation." (Mike Zebell of Aecom US, commenting on Milwaukee's plans to proceed with a 1,200 tonne per day plant using plasma gas technology.)

WHERE ELSE IS PLASMA GAS USED FOR TREATING MSW?

The application of Plasma Gas to MSW is relatively recent, within the last 30 years.

Most of the Plasma Gas facilities for MSW now in operation deal with relatively small volumes of waste.

Their success in treating MSW means that many more such facilities are being built or have been approved by municipal/environmental authorities for construction.

The table below gives details of MSW facilities now operating, under construction or approved.

Location	Consortium	Capacity (tonnes per day)	Operating from	Build status	Comments
Ohio, USA	General Motors	2400	1987	Built	Feedstock is scrap metal (harder to process than MSW). 98% operating efficiency
Mihama Mikata	Hitachi Metals	22	2002	Built	Operating without problems for foreseeable future.
Utashinai, Japan	Hitachi Metals	220	2003 to 2013	Built	EPD say it operated poorly which is why it had to close in 2013. In fact, operational issues were resolved. It closed for lack of feedstock which meant it could not operate at a profit.
Tainan,	PEAT	35	2004	Built	Operating

Taiwan	International				without incident
Toronto, Canada	Plasco	100, but approved to upgrade to 300	2008	Upscale in progress, pending financing	Approved for 24/7 commercial operation by Toronto City Council in November 2011
Vero Beach, USA	INEOS Bio	275	2012	Built	Attains full capacity in 2014
Wuhan, China	Wuhan Kaidi/ Alter NRG	100	2013	Built	Alter NRG (Westinghouse Plasma) are supplying the furnaces
Morcenx, France	Europlasma	140	2014	Built	Currently commissioning
Teeside, UK	AirProducts	950	2014	Built	Starts to operate April-May 2014
Teeside, UK	AirProducts	950	2016	In progress	A mirror image of the 2014 Teeside project - Alter NRG (Westinghouse Plasma) are supplying the furnaces
Oldbury, UK	Chinook Sciences / EMR	950	2014	In progress	Uses award winning Active Pyrolysis technology developed by Chinook
Edmonton, Canada	Enerkem/ AIEES	275	2014	In progress	Increases landfill diversion of Edmonton's MSW from

					60% (through RRR) to 90%
Milwaukee, USA	Alliance Federated Energy	500	2014	In progress	Aecom US project consultants. Design and build by CorVal-Ryan.
Connecticut, USA	SAIC	800	2014	In progress	
London City Airport	Solena	1400	2015	In progress	Will produce jet fuel – see further Solena submission to EPD re IWME EIA
Glasgow, UK	Viridor	550	2016	In progress	
Belfast, UK	Bombardier Aerospace/	330	2016	In progress	
Bijie, China	BGE	600	2016	Awaiting final approvals	Alter NRG (Westinghouse Plasma) are supplying the furnaces. Mirror image gasifier planned to double capacity.

WHO ARE THE ESTABLISHED PROVIDERS OF PLASMA GAS?

From the above table it can be seen that, worldwide, there are multiple commercial enterprises with experience of implementing Plasma Gas facilities for MSW. To prepare this document, we have talked to the following groups:

Advanced Plasma Products/Tetronics
Air Products
Alter NRG (Westinghouse Plasma)
Phoenix Technologies
Plasco
SolenaTechnip

None of these are listed in the EIA for Hong Kong's IW MF.

The EPD claims that in evaluating the potential of Plasma Gas for this project, AECOM contacted the most significant suppliers. None of those we talked to knew of any such contact.

AECOM has now visited the UK headquarters of APP/Tetronics. Based on this visit, it invited submission of a proposal from APP to introduce plasma gas to HK for MSW treatment.

However, EPD insists that Plasma Gas will not be considered for its IW MF Phase 1 (the 'necessary evil' proposed for Shek Kwu Chau).

Further, APP has received no substantive response to its proposal since submission to EPD/AECOM in February 2012, as re-submitted to Legco's Environment Panel for its meeting in March 2012 – a facility for which it was prepared to underwrite the entire build cost.

APP has repeatedly stated its willingness to come to Hong Kong to discuss the proposal with appropriate decision makers.

IS PLASMA GAS THE BEST SOLUTION FOR SHEK KWU CHAU?

The simple answer is – ‘NO’.

It's clear that Plasma Gas is far preferable to MBI in any location.

It's also clear that the proposed reclamation for Shek Kwu Chau could house a Plasma Gas facility for the same or lower cost and with no downsides – and many incremental benefits.

However, to substitute Plasma Gas for MBI on Shek Kwu Chau would be foolish to the point of being itself an ‘evil’.

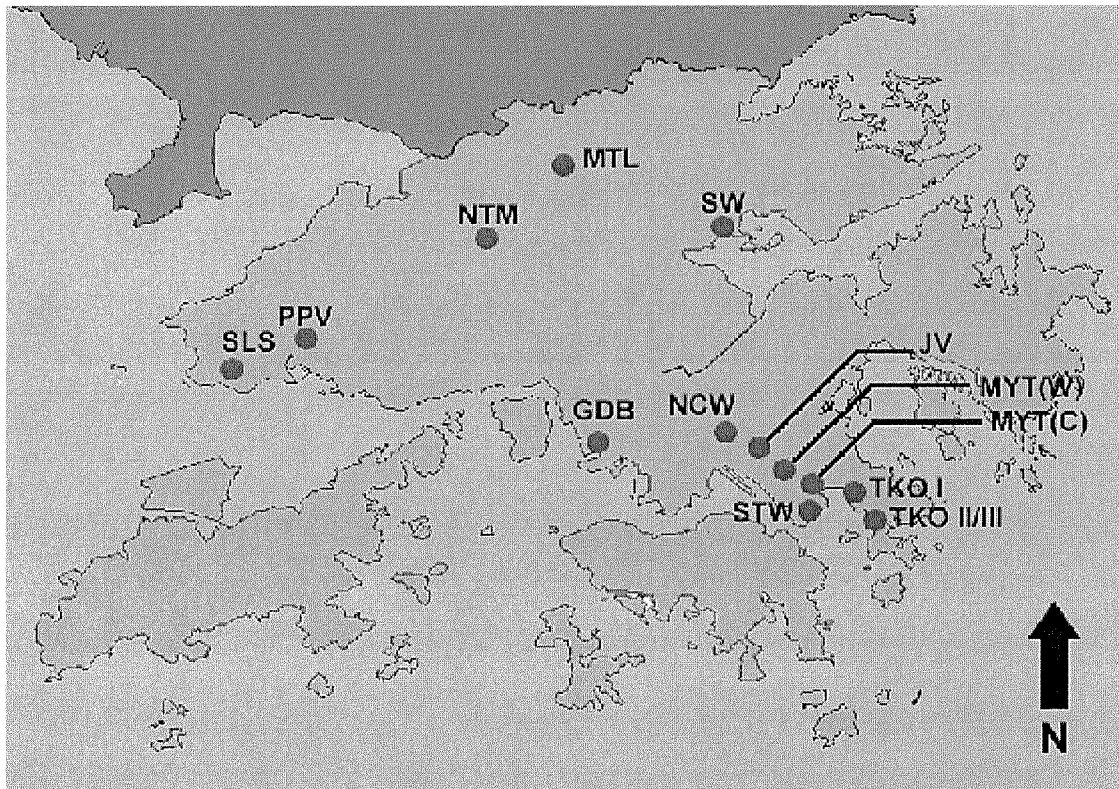
The reasons why it would be such an (unnecessary) evil include:

- permanent despoiling of a particularly beautiful stretch of HK's coast
- exorbitant cost
- delayed operation of the facility beyond 2017

SO WHAT'S THE BEST WAY TO USE PLASMA GAS IN HONG KONG?

Because Plasma Gas facilities are safe to locate near urban environments and can be used to mine landfill, the best way to use Plasma Gas facilities in Hong Kong is to locate them next to existing or exhausted landfill sites.

There are 13 of these exhausted sites in Hong Kong.



By locating Plasma Gas facilities in this way, they can be wholly and holistically integrated in HK's overall waste management strategy and so merit the moniker 'IWMF'.

HOW LARGE OR SMALL SHOULD THE FIRST PLASMA GAS IWMF BE?

For the same cost as building the proposed MBI mega-incinerator on Shek Kwu Chau, Hong Kong could have THREE plasma arc facilities of equivalent capacity (ie. handling in total THREE times the volume of waste as the proposed incinerator).

However, such a mega-spend is not necessary.

A more sensible strategic approach is to build an initial smaller scale Plasma Gas facility at one or more of the existing landfill sites. In this way:

- the Administration will remain incentivized to bring in more rigorous waste management policies, which everyone agrees are necessary to make Hong Kong more responsible for managing its own waste.
- use can be maximized of existing infrastructure (eg transportation of waste) for feeding the Plasma Gas facility with MSW
- arrangements for pre-sorting and shredding of MSW can be tested and optimized before rolling out more broadly if required.
- should more rigorous waste management policies make it unnecessary to build more Plasma Gas capacity, the existing Plasma Gas facilities can continue to operate profitably, transforming MSW from – and so gradually eliminating – existing landfill.

Because Plasma Gas facilities can be built incrementally, the initial test plant can be as small as 100tpd per location.

However, economies of scale make it preferable to plan for initial capacity of around 1,000 tpd per location.

WHAT WILL A PLASMA GAS FACILITY LOOK LIKE?

In terms of likely visual impact, plasma gas facilities:

- generally use a basic box shape for each modular unit
- have low chimney stacks (max 30 metres high)
- can be situated on land or sea with no significant safety risks in the event of earthquake, tsunami or other act of god.
- can be sculpted to suit a low contoured landscape
- can be easily dismantled

WHAT ARE THE PERCEIVED RISKS OF USING PLASMA GAS?

The table below sets out a critique of Plasma Gas in relation to perceived potential risks or defects, with comparable criticisms made of MBI :

Perceived risk or defect	Plasma – how to compensate	MBI – perceived risk or defect	MBI – how to compensate	Comments
Can only deal in small volumes of MSW	Upscale with modular units in series	Can only deal in large volumes of MSW	Ensure consistent high volume throughput of MSW	
1998 German pyrolysis plant explosion leading to closure	100% safety record for plasma gasification (as distinct from pyrolysis)	In last 5 years, closure of plants in UK (unsafe emissions), US (too expensive) and Taiwan + Singapore (reduced MSW levels)	Safety: Improve filters + scrubbers Cost: Increase tipping fees Reduced feedstock: import waste from outside HK	Enhanced filters increases toxicity of output ash. Increased tipping fees politically unacceptable. Import waste not acceptable if done at cost with attendant health risks.
Requires pre-sorting and shredding of waste	Shredding to get consistent feedstock – sorting beneficial but not essential because plasma gasification copes with all kinds of MSW	Requires pre-sorting and shredding of waste	Pre-sorting essential to remove more toxic items and minimize stoppage (dioxin emissions highest when stopping or starting)	
Few proven suppliers worldwide	Work with established contractors backed by contractual guarantees	Few suppliers able to operate on mega-scale	Work with established contractors backed by contractual guarantees	

SO WHICH WILL YOU CHOOSE: THE NECESSARY EVIL OF MBI ...

- Maximum cost for minimum returns from MSW resource
- Permanently despoiling pristine coastline / Conservation Area
- Polluting the environment
- Adding to HK's carbon footprint
- No long term solution to landfill exhaustion

... OR THE INCREMENTAL BENEFIT OF PLASMA GAS?

- Maximum return for less overall cost from MSW resource
- Reclaiming landfill sites with no short or long term damage to HK's environment
- No toxic outputs
- Reducing HK's carbon footprint
- Up-scalable in flexible response to HK's waste management needs
- A 'win win' solution in every way!

17 March 2014

To: "wklo@engineer.com" <wklo@engineer.com>, "lcc.ntw@dab.org.hk" <lcc.ntw@dab.org.hk>, "jkstolegco@gmail.com" <jkstolegco@gmail.com>, "klclegco@gmail.com" <klclegco@gmail.com>, "elau@dphk.org" <elau@dphk.org>, "yctam@dab.org.hk" <yctam@dab.org.hk>, "arazack@netvigator.com" <arazack@netvigator.com>, "khwong@ftulegco.org.hk" <khwong@ftulegco.org.hk>, "info@cydho.org.hk" <info@cydho.org.hk>, "garychk@dab.org.hk" <garychk@dab.org.hk>, "leungkl@leungkl.org" <leungkl@leungkl.org>, "ipkh@dab.org.hk" <ipkh@dab.org.hk>, "contact@alanleong.net" <contact@alanleong.net>, "albert.wychan@yahoo.com.hk" <albert.wychan@yahoo.com.hk>, "legco@michaeltien.hk" <legco@michaeltien.hk>, "tpc@jamestien.com" <tpc@jamestien.com>, "frankieyick@liberal.org.hk" <frankieyick@liberal.org.hk>, "chiwaioffice@gmail.com" <chiwaioffice@gmail.com>, "fankwokwaioffice@gmail.com" <fankwokwaioffice@gmail.com>, "fkmaoffice@gmail.com" <fkmaoffice@gmail.com>, "charlesmok@charlesmok.hk" <charlesmok@charlesmok.hk>, "benchanlegco@gmail.com" <benchanlegco@gmail.com>, "info@chankalok.hk" <info@chankalok.hk>, "yhchan@ftulegco.org.hk" <yhchan@ftulegco.org.hk>, "amlegco@gmail.com" <amlegco@gmail.com>, "info@cheungchiuhung.org.hk" <info@cheungchiuhung.org.hk>, "helenawonghk@gmail.com" <helenawonghk@gmail.com>, "eq@eqweb.hk" <eq@eqweb.hk>, "chianglaiwan@gmail.com" <chianglaiwan@gmail.com>, "office@chungsk.com" <office@chungsk.com>, "info@tonytsewaichuen.com" <info@tonytsewaichuen.com>

From: Rhea Nee [REDACTED]

Date: 04/16/2014 04:15AM

Cc: "info@livingislands.org.hk" <info@livingislands.org.hk>, "cb1@legco.gov.hk" <cb1@legco.gov.hk>

Subject: Very concerned with EPD's approach to Waste Management

16 April 2014

Letter of representation to Public Works Subcommittee Members

Dear Honourable Members of the Public Works Subcommittee,

Our organisation urges you to reject the current proposal by the Director of Environmental Protection (DEP), which is supported by the Secretary for the Environment, to upgrade 177DR to Category A at an estimated

cost of \$18,245.7 million in money-of-the-day (MOD) prices for the design and construction of the integrated waste management facilities (IWWMF) phase 1. [PWSC(2014-15)7]

While the Panel on Environmental Affairs has now approved (by 9 votes to 6) the same basic ENB proposal to "burn and bury" our waste that they rejected approximately 2 years ago, we urge you not to blindly follow their approval which is meant to have been based on environmental concerns. We believe that the 9 members of the EA Panel who voted in favour have clearly shown their lack of concern for the natural environment of Hong Kong.

As members of the Public Works committee, where your expertise is more on project management and engineering solutions, you should see that the current proposal to extend 3 landfills and build a mega incinerator does not solve the problem we are facing with Municipal Solid Waste (MSW) in the most timely or financially responsible way. We urge you to reject the current proposal based on the clear project management perspectives of:

- **Timing:** building the incinerator next to Shek Kwu Chau (SKC) will take many more years than the alternative site of the Tsang Tsui Ash Lagoons.
- **Cost:** selecting a site that does not require reclamation would significantly reduce the cost of the project. The difference in costs has been estimated to be the equivalent of building a new hospital (\$2.5 Billion for the recently opened Tung Chung Hospital)
- **Technology:** the current proposal contains no practical proposal for mechanically sorting the majority of our waste before it is either sent to a landfill or incinerator. The proposed SKC pilot sorting plant will only be able to handle about 2% of the total MSW
- **Performance Measure:** There are no performance incentives within the proposal for the government to implement meaningful recycling services. How can you trust the government to implement the recycling services once you have approved the "bury and burn" based proposal?
- **Inefficient Land Use:** The land area of the existing landfills sites should be used as Integrated Waste Management Facilities (IWWMF) rather than being only used for landfill. An IWWMF should include building multi-storey waste sorting facilities to separately identify recyclables, organics and hazardous materials.
- **Private Sector Competition:** There have been numerous offers from the business sector over the years to help solve the waste issue from a commercial perspective. These have included offers to take 1/3 of the current MSW to piloting of the very latest thermal treatment technology.
- **Risk Management:** How can building one mega incinerator operated by one company out in the ocean provide contingency measures if this single plant has operational issues. Surely multiple smaller IWWMF's located around HK can truly represent a balanced spatial distribution of Waste Management Facilities and provide superior operational risk management.

Best regards,

Rhea Delos Reyes

Mui Wo resident



新界關注大聯盟

新界屯門良田村 77 號 2 樓

2805 1118

nt01group@gmail.com

15th April 2014

Dear Panel Members,

re: Public Works Subcommittee Meeting

You will be aware that the NT Concern Group has been actively opposing the 3+1 formula, i.e. expansion of the 3 landfills and construction of the incinerator and instead, we strongly recommend that Plasma Gasification (“PG”) technology be adopted instead.

Recently, I went to Shek Kwu Chau where the controversial incineration facility is proposed to be situated. The island is an extremely idyllic and serene location and would see two important deep-rooted aspects be destroyed. Firstly, the incineration facility will see an obvious intrusion on the lush and scenic environment for 7 years and beyond. Secondly, it is a mammoth imposition on the important and meaningful mission of the Society for the Aid and Rehabilitation of Drug Abusers. It gives off a *prima facie* shameful signal to society that the Hong Kong government views this vulnerable group, who are seeking help voluntarily, as being the same as the waste to be processed at the same place.

In addition, the 3+1 formula is an extremely extortionate investment of at least \$35 billion to the sound of fierce opposition and harm to 4 areas most directly affected- Tuen Mun, Tseung Kwan O, Ta Kwu Ling and Shek Kwu Chau.

What actions will this Subcommittee take to save the environment and the public purse? The proposed incinerator alone was previously estimated at \$15 billion but this estimated figure has recently been updated by Mr. KS Wong to account for inflation at \$18 billion. Instead of letting this figure spiral and to avoid overspending, a cap should be introduced to avoid further price escalations.

Moreover, in the absence of government’s comprehensive report from its trip to Europe looking at various waste management technology in early March 2014, this Subcommittee should be cautious to approve the 3+1 formula.

I fail to understand why government cannot direct and adopt advance Plasma Gasification technology (even if it is just a smaller scale facility to prove the merits) in Tuen Mun to make it truly an advanced and functioning Green City. The infrastructure and feedstock are already there (in the landfill) and the modern PG technology would ease government’s insatiable desire to expand all 3 landfills as well as being capable of reverse land mining. With a PG facility (capable of processing 1,000 tonnes per day) becoming fully operational this year in the UK, the world need only wait 1 year to see live data to support this mature technology which is sitting in a budding market.

It is therefore my position as well as the NT Concern Group’s position that this Subcommittee respectfully refrain from approving government’s flawed proposals in relation to the 3+1 formula. I would be delighted to discuss this issue further with you and can be contacted on 9195-1786.

Yours sincerely,
Mr. Junius Ho
Spokesman for NT Concern Group and
Tuen Mun District Councillor

致立法會

香港中區立法會道 1 號

立法會綜合大樓

工務小組各立法會議員

日期：2014 年 4 月 15 日

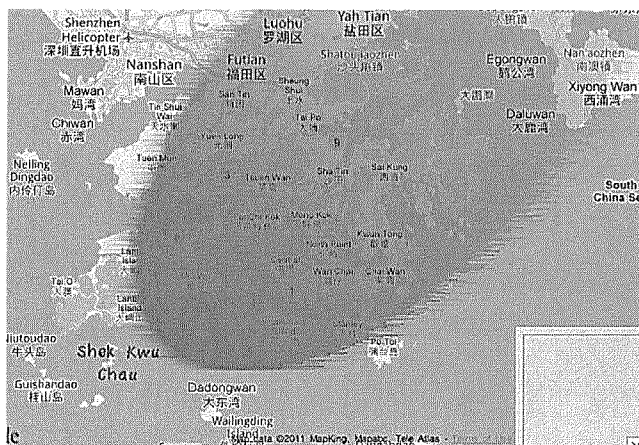
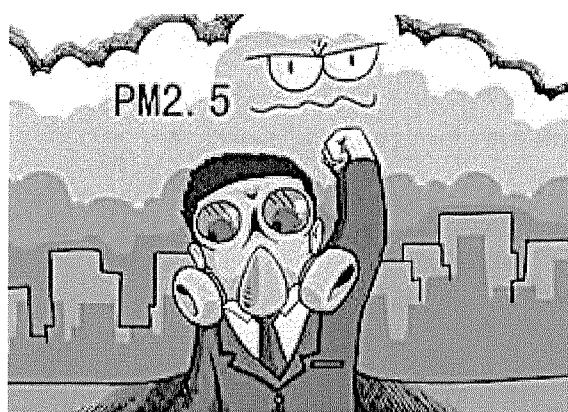
有關環境局擬建的「超級焚化爐」

環境局最近重推「三堆一爐」方案，雖說有其迫切性，但四個工程將直接影響及屯門、將軍澳、北區、離島各區超過 1,000,000 居民的日常生活及健康，而間接也使全港市民承受沉重的社會成本。規劃顯然是極有問題，以下是我們有關超級焚化爐的意見。

1. 累積污染損性命

環保署曾提及焚化爐很安全及會採用歐盟排放標準；焚化爐排出的有毒氣體、污染物很少，對人體的健康影響微不足道。問題是世界上所有焚化爐都會排出大量的二氧化碳及一定數量的二噁英、二氧化氮、PM_{2.5}等污染物。而世衛最近已將「空氣中的懸浮粒子」列入最高風險的「第一類致癌物」，即該類「微細懸浮粒子 (PM_{2.5})」對人體的健康可造成嚴重的損害。

環保署沒有正視近年的研究越來越多顯示，人體健康與焚化爐排出的氣體有著密切的關係；居住在焚化爐附近的居民，會因長時間吸入太多有害氣體而生病，甚至患癌，影響嬰兒正常出生等問題。環保署雖說焚化爐很安全，但居民長期在這種受污染的環境下生活怎會不受影響？政府總不能將人體的性命及健康來做試驗？



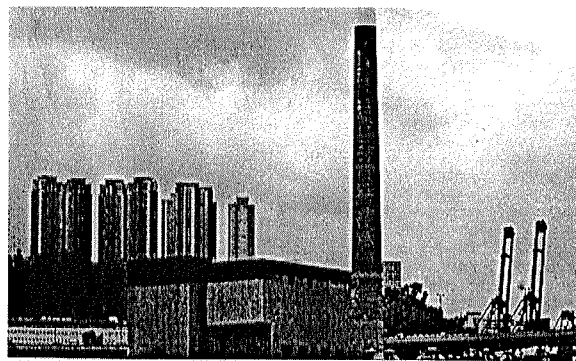
環保署也漠視了焚化爐 24 小時運作，其排出的有毒氣體、污染物累積在周邊環境，會對生態及環境造成嚴重的污染。長洲與石鼓洲距離只有 3 公里，如果吹西南風，污染物在 10 分鐘左右便吹遍長洲，而不到兩小時也吹到香港九龍。要知香港地方太小，污染物是源源不絕地 24 小時從焚化爐排出，在短時間內不易被稀釋；這此污染物充斥在空氣間，將導致市民的呼吸系統出現更大的毛病。

顯然立法會各位議員，是有責任關注焚化爐對人體性命及健康的影響。

2. 漠視空氣污染

現時香港空氣質素在全球 566 個城市中已排尾 8。市區的 PM₁₀ 已超出世衛標準十倍，而 PM_{2.5} 也超出世衛標準十多倍，空氣質素可謂很惡劣。環保署在未有任何改善現時嚴重的空氣污染情況下，卻仍構思引用最污染空氣的焚化爐來處理垃圾；可謂甚不負責任，也失卻了政府設立環保署保護環境的意義。這將導致有害氣體、污染物，將隨著不同的氣流而在香港各區四散，相信將令香港的空氣質素進一步變得更差。

香港 1997 年關閉所有焚化爐，是因為其嚴重污染環境。現代的焚化爐雖然比過往有很大的改良，溫度雖增高一倍餘，亦增設多重先進的空氣污染控制系統；但「活動爐排焚化技術」並非什麼新技術，有毒氣體和污染物如 PM_{2.5}、PM_{0.1} 是無法隔除，一樣會從焚化爐的煙囪排出。這些污染物對心肺功能損害極大，若然附帶毒性更會令人致癌。



The Kwai Chung incineration plant closed in 1997 because of pollution fears. Photo: K. Y. Cheng

3. 蓄意隱瞞事實

環保署自 2011 年推出焚化爐時，便向市民吹噓現代焚化爐如何先進，甚至採用較歐盟排放標準更嚴格的標準。而在「環評報告：健康影響」中指出：「污染物對健康產生的影響非常小且無法被量化」、「…和爐灰所造成的潛在健康影響並不顯著」。但環保署在 2013 年 12 月 13 日的諮詢會解答長洲居民查詢時，卻一反過往論據；強調焚化爐是一種污染源，不能再建在屯門增加區內的污染。這種自相矛盾的理論，顯示環保署的誠信很有問題。



環保署雖解說外地有些焚化爐建在市中心，與民居的距離甚近，外國講距離幾百米無問題。不過環保署往往迴避了這些焚化爐多是細小的(1000 公噸左右或以下)，且當地多做好分類回收工作才焚化垃圾。要知一個設施長期影響 30,000 人的日常生活及健康，又沒有與當地居民詳細溝通，應不是一個負責任政府應有的做法？

環保署曾顯示香港青衣也有個焚化爐，居民當初反對，不過現時已接受了；但環保署擬用的焚化爐不但是世界最大之一，且集中焚燒全港無分類的垃圾，其處理量更是青衣的 1500 倍，明顯是蓄意誤導公眾。離島居民深信環保署這樣焚燒垃圾，將排出大量極度危險的污染物，危害生命健康。而環保署每次到離島諮詢時，居民都是強烈反對在石鼓洲建焚化爐；然環保署在眾多報告上則說諮詢了很多意見，但從未向公眾公布實際反對的數據。

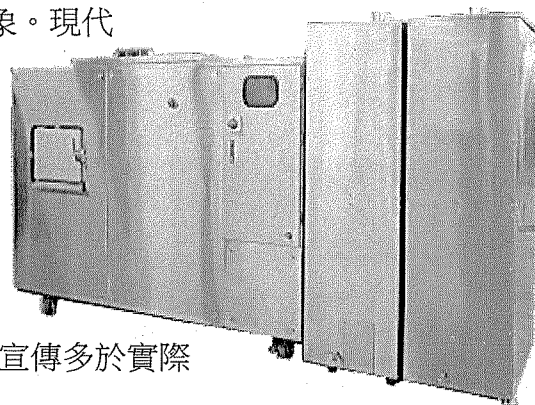
現時世界上很多研究都同樣指出，焚化爐產生的飛灰及爐灰，都有不同程度的劇毒。但環保署於 2012 年 1 月 17 日，出席城規會主辦的公眾諮詢會時，公然聲稱焚化爐產生的爐底灰沒有毒，從而獲得城規會在當晚通過在石鼓洲建焚化爐決議。這種公然誤導公眾的言行，顯然有違環保署保護環境的責任。

4. 無做好分類回收

世界上任何先進國家處理垃圾，都「必先做好」源頭分類回收工作，最後才考慮焚化。特首梁振英在其競選承諾時，也是先做好減廢工作，焚化爐是最後處理垃圾的方法。環境局黃局長上任至今已近 2 年，其間雖已開始推動源頭減廢；如宣傳「惜食香港運動」。問題是這類的宣傳，尤其是佔垃圾四成的廚餘，若沒有積極的政策推動，恐怕 10 年時間也難以改變居民的習慣。

環保署現構思在 18 區設環保站，加強地區減廢功效；也減少廢物長途運輸的耗費及滋擾，這種構思是值得讚賞的。不過這類工作必須由政府帶頭，招攬地區不同組織合力一起參與減廢，官民合力推動才能見效。如最近有團體提出設立「剩食回收站」，把商業機構日常丟棄剩食轉送給基層市民，未尚不可物盡其用。最忌是走回以往舊路，由一些與環保署有親密聯繫的組織單獨推行；從過往的經驗可見，日後可能又衍生更多的問題。

廚餘佔垃圾的四成，應是政府重點最先處理的對象。現代的廚餘機可在一日間把廚餘減少八成，比堆填佔有空間更合乎環保原則，比用焚化(850 度以上)更省卻能源，且更安全。如果政府大力發展廚餘回收工作，不但可避免廚餘大量拋棄於堆填區，產生臭味及有毒氣體滋擾環境，還可轉化為社區有用的資源。環保署現時雖有資助屋苑回收廚餘計劃，但每日處理量不到 10 公噸；可謂流於表面宣傳多於實際減廢作用，有關政策顯有必要大力推動。

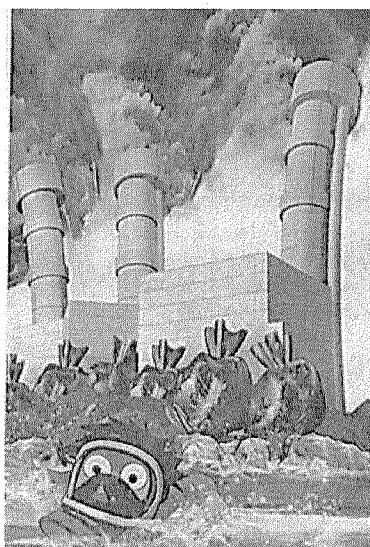


雖然環保署近來推出一系列減廢措施，但跟據這十年間紀錄；往往是雷聲大雨點小，有頭無尾成效不顯。現雖成立督導委員會，負責處理香港的垃圾；問題是我們見不到政府有決心做好分類回收工作，只依靠「三堆一爐」來處理垃圾。若然各議員輕信環保署其表面的理據，便通過其興建焚化爐的建議；其減廢目標最終亦是徒然，香港的環境將繼續惡劣，空氣污染亦無法根治。

5. 破壞環境損生態

在海上建造焚化爐，無可避免地需要挖泥填海。雖然環保署說會使用最先進技術，不過從政府以往歷次經驗顯示，在實際運作時卻是兩回事；海水會受到不同程度的污染，嚴重的更長達十年之久。雖然政府會在填海工程其間，補助附近捕魚業及養魚業的損失；然漁民卻永久失去 31 公頃的捕魚區，及 16 公頃魚類產卵和育幼區，生計受損。

石鼓洲附近是一個未受到任何破壞的天然環境，那裡居住了一種瀕危絕種的國家級保護動物「江豚」。這種動物活躍於石鼓洲，在那裡牠們可找到喜愛的食物，可在那裡哺養幼兒，逃避其他海洋動物的侵襲。然環境局卻用長官意志，擬粗暴地把牠們趕離慣常聚居點石鼓洲。雖然環保署構思在索罟群島附近建海岸公園以安置這類瀕危物種，問題是這類哺乳類動物並不是魚類；未必能適應新的海底環境，亦未必能逃避到其他海洋動物的侵襲。長久以來，其活動於石鼓洲範圍而非索罟群島附近，自有其眾多生存的因素；環境局這種決定，無疑滅絕其生存空間。



而且超級焚化爐排出的污染物，累積在石鼓洲一帶，亦嚴重干擾石鼓洲島上居民的生活及健康。島上珍貴的物種如白腹海鷗、鮑士雙足蜥等，將無法繼續生存。而且焚化爐一定會排出大量的二氧化碳(CO₂)，形成酸雨影響周邊環境及水質；而石鼓洲島上有這麼多珍貴文物，卻因環保署的草率決定而蕩然無存。

政府如果做好分類回收工作，焚化爐排出的污染物自然比無分類來得少污染。問題是環保署蓄意興建一個世界上最大的焚化爐之一，集中焚燒無須分類的垃圾，其污染亦可算是世界之最。而當有毒污染物融入海水時，附近的海產長期吸收這些有害物質便會殘留在體內，而人類食用這海產自然是不理想，市民的生命健康難有保障。

6. 誇大數據誤導公眾

政府將環保業定為六大發展行業，但以往環保署並沒有積極扶持；紙料及金屬等有價廢物回收，都是各區小市民努力收拾的成果，但環保署卻盜用來作自己的政績。而低價值的廚餘、玻璃樽、廢膠等，卻沒有任何政策配合。推行了十多年的三色筒，市民履行了分類回收責任；而環保署卻容許有關部門或業界隨意傾倒於堆填區內，減廢可謂全功盡廢。



環保署在兩年前公佈的回收量已經是 52%，而環保署在「香港資源循環藍圖」的未來十年回收目標是 55%；這顯示環保署未來的減廢工作非常容易，無須積極推動減廢可輕易達標。過往環保署常將回收比率任意調高降低，半年間由 49%調升 52%，現在不足一年又再降低至 48%，我們很擔心這種弄虛作假的風氣，減廢最終一事無成。

而把大量的「洋垃圾」也計算為自己減廢的成果，就更顯得環保署這部門的不知所謂。過往環保署常否認誇大香港廢物回收率，不過近日在數據下迫於承認回收率的計算方法有偏差，決定改善計算方法，可算較以往進步。



而引用 1987 年較落後的空氣質素標準，來審批環評報告及批出的環境許可證，顯然也是一種卑劣的手法；因為在這標準下，很多有毒氣體及污染物不被編入計算或公布之列，當中最重要之污染物 PM_{2.5} 完全被忽視。從廖秀冬的減廢藍圖至今，當中白白浪費了十年光陰。立法會各議員，若不正視環保署這種做假誤導公眾的手法，繼續縱容其蒙混過關；日後不但無以面對市民的質詢，也難以向自己的子孫交代。

7. 破壞承諾干擾法制

《環境影響評估報告》所提及的 23 個焚化廠選址，當中分析自相矛盾。環保署原本選擇在屯門曾咀及石鼓洲興建兩個焚化爐，但礙於屯門聲音大而離島聲音小；環保署在「香港

資源循環藍圖」中，靜靜地取消了屯門曾咀的焚化爐，只選擇在石鼓洲興建。但在顧問報告有關兩個選址的十多項比較中，無論在危害生命之程度、跟現有廢物處理設施配合、工程風險、營運風險、用地、生態影響等，石鼓洲都是較不宜的，只有一個交通因素是較適宜。我們很驚訝環保署官員，用這種非理性的處事態度來辦事。

特首梁振英先生在其競選承諾時，也是先做好減廢工作，在無法再處理垃圾時，才考慮以焚化爐來解決問題，焚化爐是最後的方法。但環保署在未有有任何減廢成果前，卻在「香港資源循環藍圖」把焚化爐作為一種主要減廢方法，近日更急於向立法會申請撥款建焚化爐。令人質疑環保署的減廢決心，顯有違特首梁振英在競選時的承諾。

眾所皆知在司法程序進行時，是不宜作任何行為去干擾輿論及法庭；環保署明知今年六月將有上訴進行，仍然向立法會申請興建焚化爐，顯然不尊重法庭。而在法庭未有最終判決前，便迫令立法會各議員表態，實屬一種卑劣舉動。希望立法會各議員，詳細考察各種細節，否決環保署有關興建焚化爐的動議。

8. 失職浪費大量公帑



過往環保署構思在陸上建「超級」焚化爐的成本不外 40 億元，已是全世界最昂貴的價錢；而建築時間不外 3 年，便可全面運作。然環保署現在卻偏選擇用多兩倍的時間，多數倍的公帑在海上建「超級」焚化爐；這種海上工程現時雖預算約 180 億元，不過工程完成後慣常超支一二倍。以大嶼山小蠔灣廚餘處理中心造價為例，四年內狂升兩倍，由 5 億元增加至 15 億元。恐怕「超級焚化爐」到時要 500 億元，才能完成所有工程。

本來用一個月的時間來公眾諮詢一個近 200 百億的計劃，已經是少得非常可憐。而最今人震驚的是環保署在這極短的一個月公眾諮詢時，顧問公司(AECOM)已經在自己的網頁，誇耀自己取到全球最大合約之一。相信將來所有的維修保養及運作建造工程，很自然是這集團所承辦。公眾很不明白，為何環保署批出的工程，慣常由一些親政府的財團建造，而造價往往高出國際市場數倍之多。這種若不是「官商勾結」，恐怕難以解釋有如此決定。環保署擬將全港島所有的垃圾運到石鼓洲來處理，然當中扣除一成不宜焚燒物及二成爐底灰外，實際只能處理 2100 公噸垃圾；即長途跋涉地把 3000 公噸垃圾運至石鼓洲，然後卻將約 900 公噸不能處理的廢物運回屯門堆填。處理垃圾的效能可謂甚底，而製造出來的傷害卻是奇高。而這種涉及大量運輸的方法，不但耗費大量能源，而且沿途所產生的污染及滋擾，也是難以估計。公眾難以明白環保署為何會有這種不智決定。

加上石鼓洲焚化爐在海上運作，每年的維修保養及運作費用高昂。而且焚化爐只能經水路運輸，每逢霧季及風季，運輸風險劇增，我們不見環保署有套完善的危機處理方案。萬一途中發生意外，對環境的損害將是災難性的。右圖顯示最近一艘沉船，在長洲遇難至今月餘仍無法處理。如果環保署蓄意在石鼓洲興建焚化爐，這項目必然成為大白象；在破壞環境之餘，也浪費大量公帑。



9. 整全廢物管理十年藍圖

環保署自歐行後所推介的荷蘭焚化爐(Afval Energie Bedrijf) ，在世界上算是先進及最大的焚化爐，每日能處理 4400 公噸垃圾。但環保署卻沒有說明這個焚化爐是建在人口稀疏的工業區，還是人煙密集的住宅區。而環保署顯漠視了歐洲當地對這焚化爐的評價，仍歐洲最污染設施之一：

<http://www.theguardian.com/news/datablog/2011/nov/24/cost-of-environmental-pollution>



環保署只知硬銷焚化爐，對實際的問題視而不見，對居民的憂慮置若罔聞，顯有失職責。現今科技一日千里，而《環境影響評估報告》以十多年前的資料來審視問題；從焚化技術層面至空氣質素要求，至今都有很大的改進。各位立法會議員，顯然有必要深入研究焚化爐所帶出的禍害及引致的社會成本。

環保署於去年 12 月 13 日到長洲講解有關焚化爐時，曾提及任何城市都有焚化爐，更說香港這樣先進的城市，為何沒有焚化爐？

我們不知道環保署在會場上是否蓄意誤導居民。請看美國紐約這樣先進的大城市，人口比香港多，但地方卻比香港少；人們至今都沒有使用焚化爐，為何香港要急於求死？現時世界各先進城市都努力做好分類回收，試圖建造一個綠化城市；環保署則喜歡仿效內地建造一個霧霾城市，拿市民的性命健康來開玩笑。

在 2013 年 12 月 16 日離島區議會有關石鼓洲焚化爐的討論，絕大部份區議員都反對環境局在未有任何減廢的成績前急於興建焚化爐；以下短片是當日各區議員的意見：

<http://www.youtube.com/watch?v=iL5TOzbyEkE&feature=youtu.be>

而在 2014 年 3 月 22 日的立法會環境事務委員會公聽會中，接近七成的發言人反對「三堆一爐」方案；支持者僅得商界，顯然有別於環保署的資料。從過往環保署官員每次落區諮詢居民的反映，離島居民都是強烈反對在石鼓洲建焚化爐。希望立法會各議員以民意為依歸，也以香港市民的健康及利益為依歸；勿急於通過焚化爐，以免後患無窮。謝謝關注。

許輝程謹啓

群峰教育中心環境關注組

地址：長洲中興新街 20 號地下

電話：██████████

Legislative Council
Legislative Council Complex,
1 Legislative Council Road,
Central, Hong Kong

Dear Panel Members

Date: 16Apr2014

Written Submission to Legco Panel on Seeking Fund for the Incinerator 22Mar2014

Before you vote for the incinerator, we urge you to consider carefully on the following points:

Urgency of the project

Other options are feasible that it can be built and put in service in much less time, rather than wasting time by reclaiming land from the sea and destroying the coastline.

Health and Environmental considerations

Many recent scientific publications find health impacts on nearby residents, such as child birth defects and young children with stunted growth, as well as cancers. The incinerator is incompatible to a region that is designated for conservational and recreational uses. Even with EU standards being met, there will be significant impacts on the air quality in Hong Kong territory wide. Don't forget, EU standards do not guarantee having no health impact, just a more stringent guideline.

Alternative Technology

The newly emergent technology, plasma arc gasification process, is becoming a more popular choice, not only worldwide but also in China. In last month alone, a plant treating toxic fly ash from the incinerator in Shanghai and another to treat MSW in Bijie in Guizhou were announced. Zhuhai is planning a 2000 tonnes/day facility. These plans are contrary to the EPD's insistence that such a technology is unworkable and dangerous. This is the evidence of misinformation.

A recent study tour to Europe conducted by the N.T. Concern Group found the new technology is not only more efficient, but less expensive to build and, more importantly, it gives superior air emissions and no toxic ash and residues as byproducts.

It is sinister in our view that the recent tour conducted by Legco to Europe, did not allocate a fair time slot to the new technology. An hour-long talk is hardly comparable to a site visit.

Judicial Review

It is incomprehensible that while the court case is in progress, instead of conducting more public consultations and further reviewing potential project improvements, the government is now seeking funding for the same option, at a time when the basic concept of waste management has changed to focus on more separation and recycling. Is it a case of the government being unwilling to listen and serve its people well?

Pledge by CE in the Election Manifesto

Mr. C.Y. Leung have made a pledge that no incinerator will be built until recycling of wastes is in place. The policy of recycling is still in its infancy; we are still in nowhere near the legislative process. Once the funding for the incinerator is approved, it will greatly influence the finer details on the degree of recycling. Don't forget, the design of the moving grate incinerator is for complete burning without separation; this will discourage recycling and be contrary to C.Y.'s pledge.

There is a need for more evidence to show the government has performed in depth analyses on the financing, the recycling business infrastructures, better technologies for the environment, and final outlets for the recycled materials and products. Any approval of funding at this stage would be premature and unnecessarily expensive, and prove contrary to the aim of a greener Hong Kong.

Vice-chair: Basil Hui

Living Cheung Chau

G/F, 20 Chung Hing San St. CC, HK.

Tel: [REDACTED]

Zero Waste Smart City Resources Association Ltd.

□ □ ! □ □ □ □ □ □ □ □

From: email: [REDACTED]

To: Members of the Public Works Sub-Committee
Legislative Council, Hong Kong

15 April 2014

By E-Mail Submission Pdf File Attachment Legco PWSC Submission 15042014: 11 pages inclusive.

Nota Bene: Permission is given without prejudice for the public display and release of any and all content in this submission to the PWSC.

Dear Sir/Madam,

Re: Submission of Severe Objections to the Proposals for Funding Works of Super Incinerator and Landfill Extensions, to be heard at the meeting of the PWSC on Wednesday 16 April 2014

Summary of Objections

Against the proposals for:

(i) **The 3,000 Tonnes a Day Mega Incinerator** to be located on the spiritual island of Shek Kwu Chau, 3,000 meters in front of the Pui O Beach beauty spot, arguably the best beach in Hong Kong.

(ii) **The Landfill Extensions** at the WENT, NENT and SENT Landfills,

Synopsis: We contend these proposals are all totally unsustainable, unnecessary, irresponsible, irrational, unreasonable, inconvenient and a definite threat to the health, safety and wellbeing of people in Hong Kong because:

(1) These Hong Kong Waste Proposals Create a Massive Global Warming Climate Change Gases Problem as well as a Chemical Pollution Problem:

1.1. Perversely the proposals purport to partially solve a waste problem, but instead blindly, irresponsibly and unconscionably, create a massive and far more dangerous 'Carbon to Air' Global Warming Gases, Climate Change and Chemical Pollution Problem.

1.2. It is a material fact that all waste proposals, so far approved by the PWSC, suffer from the same disastrous fundamental flaw. They all fail the 'Keeling Global Warming Gases Emissions Test' and put 'Carbon to Air not to Ground'. It is held to be self evident that these past decisions were at the very least incompetent, grossly negligent and in dereliction of duty, in breach of a basic duty of care and simply wrong.

1.2. (a)(i) The HK\$5.5 billion plus Capex IWTF De-Watered Sewage Sludge Quad Incinerator situated next to WENT landfill at Tim Wan, Tuen Mun, which is now complete and under test to burn 2,000 tonnes a day of sterilised organic sludge that also contains sodium chloride from salt water flushing.

1.2. (a)(ii) This unsustainable facility is the largest sewage sludge burner in the world. **The crucial question, which has not been satisfactorily answered, is why was this completely unnecessary and ultra costly global warming gases plant ever built in the first place?** The annual Opex operating costs are equally expensive.

1.2 (a)(iii) Since the sterilised organic sewage sludge contains nutrients and naturally occurring salt chemicals i.e. it is a safe organic matter, a fertiliser equivalent based on sterilised human night soil with sea salt added, it should simply have been spread at sea in a suitable pattern as feed to aid the recovery of depleted marine fish stocks. Why was sustainable low cost step not taken? Did the sterilised sewage sludge require to be agitated and shredded in any way or was it already in a dissolvable state? What is the form in which the sludge is currently being fed to the quad incinerator in Tim Wan? Is there any unknown or known toxic or unsterilised organic matter in this sludge before it is burned ?

1.2.(a)(iv) Why is 1,500 tonnes a day of hazardous chemicals produced from this sludge burning being released to air across Tuen Mun, the Airport, Tung Chung, Shenzhen and the future landing points of the new Hong Kong to Macau and Zhuhai bridge? It should also be noted the burning leaves a hazardous top and bottom ash residue of 500 tonnes a day that requires a secure storage facility. Where exactly will this residue be stored and how will it be transported?

1.2(a)(v) . Since mass is conserved not destroyed, as a fusion waste treatment plant has not yet been invented, the basic incineration equation is simple, and will also apply to the proposed Mega Incinerator at Shek Kwu Chau. Input = Output. The Input at Tim Wan, Tuen Mun is 2,000 tonnes a day of de-watered organic sewage sludge = Output 500 tonnes a day, about 25 % of the input mass as hazardous top and bottom ash + 1,500 tonnes a day oxidised organic matter released to air, about 75% of the input mass.

1.2 (a)(vi) The best analogy for the Tim Wan, Tuen Mun sewage incineration plant is that of a large cigarette. 2000 tonnes a day of 400 organic compounds go in to be burned and 1, 500 tonnes of 4,000 plus chemicals are released to atmosphere after burning, including a 1,000 plus carcinogens, while 500 tonnes of a similar number of chemical compounds, created by burning are retained as toxic top and bottom ash requiring secure storage. This is really a stupendous passive smoking problem.

1.2 (a)(vii) 60% of the output chemicals released to air will stay within a 20 kilometre radius forever. Has anybody bothered to tell the residents of these areas of these delightful new additions to their environment? The same equation will apply on a much larger and expanded scale to the Mega Incinerator on Shek Kwu Chau, except that the primary input ingredients are not simply organic, but also a complex array of non organic compounds and the output chemicals will be proportionally bigger include extremely dangerous dioxins and fluorins that have no safe level and stay in the ecosystem, in human terms basically forever.

1.2(b)(i) The exorbitant OWTF Phase 1 Biogas Energy Plant that will produce useless unwanted energy and even more useless unwanted fertiliser, situated in a remote location in North Lantau, incurring excessive waste transport logistics costs and pollution. This is the most expensive plant of this type in the world, by a truly astonishing factor of 8 to 10, at a Capex of HK\$1.53 Billion to deal with a miniscule 200 Tonnes a day of food waste. The Opex costs for such a mini-plant are equally amazing and monstrous. It is noted that this plant has been specifically designed to exclude green waste, and for food waste with a high water content, both astonishing retrograde steps.

1.3. Both these ultra-expensive plants totally fail the 'Keeling Global Warming Gases Emissions Test' and put 'Carbon to Air'. In addition, conversion of any organic food or green waste to biogas or other fuels incurs an energy loss of 70 to 80%. The unwanted fertiliser produced, will then from existing experience of its creation on Cheung Chau, be put to landfill. Who will accept the miniscule electricity produced? Have any feed in tariffs been agreed ?

1.4. These extravagant and irresponsible facilities are producing disparaging Guinness Book world records for Hong Kong, which will bring Hong Kong into world-wide ridicule and disrepute, making it the global laughing stock of 'pork barrel' vested interest politics. This is best described as 'HK Wasting the Environment' or 'HK Waste for Global Warming and Climate Change'. The records keep falling: The largest unnecessary human excrement burner in the world, no shit!; the most expensive heated swimming pool in the world, that no one will use!; the most expensive class rooms in the world, that no one will use!; and the most expensive fertiliser in the world, that no one will use!

1.5. New records of excess are broken daily in this gravy train of pork barrel politics, which enables vested pecuniary interests to serially raid public funds for vast sums. If the OWTF Facility is any guide, then the HK\$40 billion plus Capex budget for the Mega Incinerator and Landfill Extensions with ancillary works, will rise inexorably to at least HK\$100 billion plus at current tender prices, and HK\$200 billion plus with price inflation of 10% per annum. All to be explained away by Mr Elvis Au of the EPD as being necessary to meet strict environmental requirements.

1.6. The decisions to approve these 'Carbon to Air' facilities, all have bad smells, literally and metaphorically. The decisions were either incompetent, grossly negligent, in dereliction of duty or the direct inference and proposition is that they were knowingly undertaken with the direct intention to defraud the public purse i.e. a fraudulent charade on a grand scale, which was systemically and systemically designed to enrich certain vested pecuniary interests.

1.7. In relation to total rubbish, complete waste and utter garbage issues, it is relevant to note the salient material fact that that the Directors of the former joint venture company Swire Sita Ltd. were all recently convicted and imprisoned for bribery, corruption and offering advantages to obtain the Pataca \$1 Billion Annual Waste Contract in Macau.

1.8. It is also pertinent that among other pending actions affecting public officers and officials, the 'HK Trial of the Century' begins on the 8 May 2014. involving the former Chief Secretary of Hong Kong Raphael Hui and the Principals of Kong Kong's largest property company, who face similar corruption and bribery based charges and allegations related to the giving and receiving of financial or other advantages in exchange for access to and inferred influence on the design of privileged commercial information to thereby enable massive undue and unfair commercial competition. As Lord Denning stated 'Fair reporting does not prejudice a fair trial'.

1.9 The PWSB should not commit the fundamental mistakes of Tim Wan and the OWTD Phase 1 again. Global Warming and Climate Change are matters of the utmost importance and Hong Kong should not be 'Wasting the Environment' by burning and land filling waste that could be completely recycled, at a much lower cost, in a sustainable manner, as a valuable resource for the community not just for the benefit of a few vested pecuniary interests.

(2) The Mega Incinerator and the Landfill Extensions are Totally Unnecessary.

2.1 Implementation of proper simple digital recycling, with separation at source with proven bar-coded bio-degradable bags and affirmative waste charging i.e. The people own their personal separation. People are not charged for what they properly separate. They are first of all informed if they have not separated correctly, then charged or fined if they again do not properly separate waste or dump waste improperly. It is proven that comprehensive and rigorous education and training ensures people's trust, commitment and engagement in successfully implementing universal separation at source recycling in a community. The community identify with and own the separation at source and recycling process. Its their green, clean and healthy district. The local community participates and owns the concept and the results.

2.2. No proper recycling or comprehensive community education has been implemented in Hong Kong for nearly 17 years since the handover. Now we are suddenly being told that a Mega Incinerator and Landfill Extensions are absolutely essential and urgently needed. This nonsense is a fraudulent, farcical sham and charade designed to deceive and misrepresent the actual salient facts of the situation.

2.3. But still no proper recycling measures have been put in place. Inane waste charging tests are to be undertaken, publicised with great fanfare in the last week, but they make no reference whatsoever to separation at source. This is simply gross misconduct in public office inferring with a presumption *juris tantum* from this serial inaction over such a long period, a catalogue of further malfeasance, misfeasance and non feasance, which constitute by such serial defaults, systemic and systematic misconduct in public office.

2.4. Almost no education and training in recycling and eco measures have been carried out in this long period of time for the now 830,000 students, 2.2 million households and 3.85 million workers of Hong Kong. Intensive 'hands-on' 8 or 9 Rs Education and Training should be pervasive in all the 18 Districts of Hong Kong.

2.5. This would have facilitated the fundamental change of perception and mindset to think of waste as a valuable community resource. It is an indictment that the government and legislature have done virtually nothing in this area. Doing nothing and keeping the *status quo* for such an extended period of time is an affirmative and deliberate policy act. It appears that the Government actually wishes to keep the people in the dark and ensure that they do not participate, self-organise and innovate. This is a suppress the people policy, not the opposite and much quoted serve the people livelihood and social issues.

3. The Real Corollary - A Proven Sustainable Zero Waste Plan that Engages the Community in Every District

Implementation of Carbon to Earth Zero Waste Systems. The Technologies are Relatively Simple, Mature and Proven.

The Vision Message, Strategy and Plan:

A Zero Waste Hong Kong in 4 Years - Yes We Can Do It

3.1. Education and Training - The Foundation Soft Infrastructure: 8 and 9 R Eco Recycling Education and Training for all Students, Households and Workers: Rethink, Redesign, Reengineer, Relearn, Remove, Reduce, Reuse and Recycle to Be Responsible Members of HK Society. All students in full-time education need to have one week outdoors in nature and eco training for each year of study. Create a ONE (Outdoor, Nature and Eco) World Park. Create Jobs and a New Mega Tourist Business. This One World Outdoor Park could be situated in the Soko Islands, the unused Southern Peninsula of Lantau from Tai O and in South Lantau. It would be the best way to protect these areas from further commercial encroachment and degradation including the proposed Mega Incinerator, which must rank as one of the worst acts of global aesthetic and environmental vandalism ever concocted.

3.2. District Based Waste Recycling - Implement a Simple, Easy to Use, Digital Barcode Biodegradable Bags System for Separation at Source: All 'Carbon to Earth' Recycling. Easy to Use, Easy to Track and Trace. People's and District Community's Waste simply becomes a high visibility App Network.

3.2.1. Organic Food and Green Waste Plants and Single Track Recycling Plants Recyclables Paper, Glass, Metals and Plastics. These District Plants would remove and recycle 70% of waste sent to landfills or to confuse things 95% of Municipal Solid Waste (MSW), which is not supposed to include construction waste. Slogans: Waste is Your Community's Valuable Resource. Use Your District Waste Treasure to Create Jobs and a Bioeconomy.

3.2.2(i) Food and Green Waste converted 'Carbon to Earth' directly into Fish Foods and a High Tech Fish Farming and Vegetable Production in Each District. The Fish Wastes Recycled for Integrated Vegetable Production. Create Jobs and a Viable Self Sustaining Natural Fish and Vegetable Farming Industry in each District from Organic Food and Green Waste.

3.2.2. (ii) Use mature and proven Taiwan, Okinawan and Japanese 'carbon to earth' food waste plants, bioengineering and fish production technologies.

3.2.2. (iii) The Hong Kong Model would be : 18 District Modular Food and Green Plants, each capable of dealing with an average of up to 500 tonnes food and green waste a day. The average Capex cost per plant including conversion of standard factory space and/or released transfer station facilities - US\$25 million per plant. Capex of US\$200 m (the same as the ludicrous OWTF 1 Tender) would deal with 4,000 tonnes of food and green waste a day, carbon to ground, completely sustainable with a net zero Opex operating cost. The customised high tech fish farming and vegetable production facilities would cost a similar amount. The payback return period on both the food waste plant facilities and fish and vegetable production facilities would be less than two years net of Opex costs.

3.3. District Recyclables Plants for Paper, Glass, Plastics and Metals: Single Track Plants in each District would remove and recycle another 20 to 25 % of MSW. Cost per plant including conversion of existing industrial and redundant transfer facilities, Capex per plant average US\$30 million, Opex zero as sustainable from recycling revenues generated.

3.4.1. Balance of Waste currently sent to Landfills i: (a) Construction Waste and (b) Hazardous, Toxic and Non-Recyclables Waste

3.4.1.(a) **Construction Waste** - This category of waste simply should not be going to landfills in the first place. The reason that is being sent to landfill is blindingly obvious. The Singapore construction waste recycling scheme has reached a 99 % recycling rate for construction materials, compared to a claimed 85 % figure for HK given by Mr Elvis Au of the EPD. Local leading industry figures put the true HK recycling rate for construction materials at less than 40 %. Whatever the local recycling rate and balance, the majority goes to landfills and the rest is illegally dumped. The deputy director from Singapore in charge of their construction waste scheme said that she had never seen earth being dumped into landfills until she came to Hong Kong.

3.4.1.(b) The Singapore Construction Waste Scheme requires all developers and contractors to hold a recycling licence to operate. It's final output at the end of the recycling process is low quality aggregates.

3.4.1.(c) A similar construction waste scheme in Hong Kong would remove around 5,000 tonnes a day of construction waste. The factual reality is that at least 25 % of waste being taken to landfills is construction waste, all of which could be removed by a similar construction waste recycling scheme and almost none of this construction waste can be

incinerated. The silence on this construction waste from the EPD is deafening.

3.4.1.(d) A similar Construction Waste Scheme would again be run on a district by district basis. Again in accordance with the basic principle that all waste generated in a particular district is processed in that district to minimise waste transport logistics pollution and maximise benefits for the local community.

3.4.1. (e) Capex for a Construction Waste Scheme is estimated at HK\$2 Billion, again with a net zero Opex operating cost, as a construction waste scheme would be again be completely sustainable from gate and licence fees. Again everything in the scheme would be carbon to ground.

3.4.2. (a) **Hazardous, Toxic and Non- Recyclables Waste** - This is currently within the range of 5 to 10% of waste taken to landfills, though output from the incinerators etc. would increase this drastically by around 1,250 tonnes a day requiring additional secure, safe storage to stop environmental and eco system ground, water and air pollution.

3.4.2.(b) This would be dealt with by one or two carbon to air closed cycle ultra high temperature plasma plants with a total capacity of 1,000 tonnes a day.

3.4.2. (c) These closed cycle plasma plants are now classified, as 'non-incineration' by the USA Environmental Protection Agency, after a ground breaking legal ruling, as they do not use atmospheric oxygen and do not release any output gases to air. Closed cycle plasma plants produce safe high quality vitrified aggregates and energy at a much higher efficiency than conventional open cycle, carbon to air, so-called Waste to energy (WtE) plants that have energy losses between 70 and 80%..

3.5. Award winning global pioneers in the fields of global warming gases and climate change emissions; carbon to earth zero waste systems and technologies; food waste based fish farming and vegetable production; digital waste separation at source and waste charging; construction waste recycling schemes and closed cycle plasma plants, are all available for a comprehensive briefing on the viability, efficiency and cost-effectiveness of these mature zero waste technologies e.g. Zero Waste San Francisco; Zero Waste Taiwan; Rossano Ercolini - The Goldman Eco Prize Winner in 2013, who has inspired 5 million people in 3years to an 85% recycling level; 4,000 Italian municipalities that now recycle all food and green waste for 40 million people to make Italy's recycling rate the highest in the EC; Ralph Keeling the atmospheric research and global warming gases pioneer, the inventor with his famous father Charles of the Keeling Curve showing the shocking growth of man-made atmospheric CO₂. The list of pioneers available to come and avail Hong Kong of their valuable experience is endless.

3.6. Furthermore, no mention has been made of the fact that by 2020 the EC has mandated that no food or green waste and no recyclables can be sent to incineration or landfills. Yet Hong Kong by these proposed measures of a Mega Incinerator and Landfill

Extensions is perversely planning to do the reverse at a much later date. This course of action simply smells of blatant corruption.

3.7. Waste Transport Logistics Pollution is another area of complete silence from the Government. Taiwan plans to replace all its noisy and polluting garbage trucks with E-Trucks. Hong Kong should do the same. A suitable budget of say HK\$3 billion for a 1,000 district based E-Trucks would complete the Zero Waste, Zero Carbon to Air, Zero Waste to Landfill, Zero Waste Transport Pollution Vision Plan. But of course this would not address the existing business interests of vested pecuniary waste interests.

4. Summary and Conclusion

4.1. Up to 95 % of Hong Kong Waste can be simply and cost-effectively recycled and reused, using 18 district based 'Waste is Our Valuable Community Resource'; 'Protect our Planet'; and 'Construct Our Future Environment' Recycling Schemes. All waste management and recycling, like any other project, should be measured in terms of Capex and Opex. These are crucial indicators for the calculation and monitoring of effective and efficient performance management.

4.2. Use of existing waste transfer stations, industrial buildings and agricultural land, means that these zero waste recycling plans have no excessively large infrastructure implementation costs. Everything has been designed and proven to be completely carbon to earth sustainable, and generate no carbon to air global warming gas emissions.

4.3. The district based recycling schemes would have zero net or positive Opex operating costs. The district based recycling schemes would generate at least 10,000 positive 'good' jobs, based on a pro rata level for a population of 7 million from figures just produced for California. These mindful jobs would replace the present nonsensical low level unskilled jobs involved in black plastic bag waste collection, compression and transfer to landfills.

4.4. The soft infrastructure of ONE World and 8 - 9 R's education and training would create a powerhouse of future creativity and innovation for Hong Kong. The real foundation for a 'Thinking Green, Going Clean and Living Cool' Hong Kong.

4.5. Closed cycle high temperature plasma incineration facilities can be located on any of the soon to be redundant landfills. They would also become test facilities for the best combination of such plants to clear all landfill sites over say a 20 year period. Land is the most expensive resource in Hong Kong and should not be used for landfills. Vision Goal should be Zero Landfills in 20 years.

4.6. What is the real obstacle and barrier to this crucial vision and change to achieve the transformation to a recycling based, carbon to ground, green, clean, healthy, sustainable and beautiful Hong Kong?

4.7. The answer would appear to be: Hong Kong's current real core values of: Nepotism; cronyism; patrimony; corruption, bribery, advantages and fraud; vested pecuniary interests, especially in the fields of waste management and civil engineering; blatant conflicts of interest; unbridled and unrestrained greed to abuse public funds on an industrial scale beneath a veneer of officialdom and propriety; and political hegemony; combined with a much vaunted rule of law that is in fact applied in an arbitrary and peremptory manner.

4.8. The latter is actually the definition of anarchy. Not a country with no laws, but one with many laws which are expediently and conveniently ignored by those in positions of power. Pervasive self interest and wrongdoing is now allowed to exist because it is generally said to be 'the Chinese Way.' This venality in the 'public bad' can no longer be tolerated. It is time for a major clean out of the stables.

4.9. The reputation of the higher echelons of Hong Kong's Civil Service and Government is tarnished, almost beyond the point of recovery, by the current backlog of outstanding corruption cases at these levels, which have even brought the ICAC into disrepute. The local presumption, unless and until proved otherwise, is that everyone in Government is corrupt, and has hidden financial and other interests and agendas.

5. Crucial Outstanding Questions

5.1. The following are simple interrogatory questions, which PWSC legislators should ask the Secretary for the Environment and the Director of the EPD, to clarify what exactly the existing position on vested pecuniary interests in respect of waste management actually might be.

5.2. What are the Contract Capex, Opex and Duration Terms of the existing waste management contracts for (i) The existing operational WENT, NENT and SENT landfills? (ii) The maintenance of the non-operational landfills? and (iii) All other existing contracts, including the Tim Wan Sewage Sludge Incinerator, and any other ancillary works and operations including transportation of waste between facilities?

5.3. What is the Contract Capex. Opex and Duration Terms for all waste collection, storage and transfer contracts in each of the 18 Districts of Hong Kong and the totals for each contract and overall?

5.4. With which companies have these contracts been agreed? If these companies are subsidiaries or joint ventures, what are the ultimate holding companies of all the presently contracted companies or joint ventures?

5.5. What would be the estimated cost of terminating these contracts if they run for more than 4 years from the present date?

Yours Sincerely

Peter Reid
Chairman
Hong Kong Smart City Resources Association Ltd.

PS. Please Note that a Detailed and Fully Capex and Opex Costed Zero Waste Hong Kong Plan, for the definite betterment of Hong Kong before the next elections, can easily be arranged and presented to any and all legislators at a suitable mutually agreed time and date.

From: Peter Reid [REDACTED]
To: f_pwsc@legco.gov.hk

Date: Wednesday, April 16, 2014 07:43AM
Subject: Fwd: Futher Summary of Our Objections to the Mega Incinerator and Landfill Extensions and Counter Proposals in Chinese and English - HK Zero Waste Smart City Resources Association Ltd

History: ⇒ This message has been forwarded.

Dear Sir/ Madam,

I further forward a second email sent to all members of the PWSC directly, for distribution and public display.

Thank You for Your Kind Attentiom

Peter Reid
Chairman
Zero Waste Smart City Resources Association Ltd.
知源無廢物智慧型城市協會

----- Forwarded message -----

From: Peter Reid [REDACTED]
Date: 16 April 2014 07:16
Subject: Futher Summary of Our Objections to the Mega Incinerator and Landfill Extensions and Counter Proposals in Chinese and English - HK Zero Waste Smart City Resources Association Ltd
To: wklo@engineer.com, lcc.ntw@dab.org.hk, jkstolegco@gmail.com, klclegco@gmail.com, elau@dphk.org, yctam@dab.org.hk, arazack@netvigatator.com, khwong@ftulegco.org.hk, info@cydho.org.hk, garychk@dab.org.hk, leungkl@leungkl.org, ipkh@dab.org.hk, contact@alanleong.net, albert.wychan@yahoo.com.hk, legco@michaeltien.hk, tpc@jamestien.com, frankieyick@liberal.org.hk, chiwaioffice@gmail.com, fankwokwaioffice@gmail.com, fkmaoffice@gmail.com, charlesmok@charlesmok.hk, benchanlegco@gmail.com, info@chankalok.hk, yhchan@ftulegco.org.hk, amlegco@gmail.com, info@cheungchiuhung.org.hk, helenawonhk@gmail.com, eq@eqweb.hk, chianglaiwan@gmail.com, office@chungsk.com, info@tonytsewaichuen.com

Dear Sir/Madam,

Please find our further objection summaries in Chinese and English

Kind Regards

Peter Reid,

Chairman

知源無廢物智慧型城市協會

莫讓香港成為國際污染大都會

環境局最新提出的廢物處理計劃，根本是本末倒置，指鹿為馬，偷換循環減廢的概念，誤導公眾。

需知環保的原則，就是碳排放在泥土而不是於空氣！源頭減廢，分類循環再用是減排最效的方法而不是焚化爐和堆填。事實上，焚化爐和堆填正是最大的污染源。

問題是，政府根本抗拒循環減廢這環保正道：一方面對配合循環減廢的市民徵費，而又把收集到的資源用焚化爐製造污染。垃圾徵費所得的收入並沒有投放於環保教育，反而為製造污染服務，灌輸一整套錯誤的環境觀。

環境局對其正在推行的減排計劃並無相應的國際標準，亦沒有為循環減廢的目標定下時間表。立法會議員在審議時亦沒有就此向政府提出質詢，對法案通過把關不力，至香港及鄰近地區市民的健康不顧，任由政府倒行逆施，將香港變成污染環境，破壞氣候的惡棍！我們對此感到疑惑。

事實上，本港鄰近地區如深圳市，已有數以百萬計的市民聯署抗議本港的廢物處理計劃。深圳市長許勤亦就本港在屯門和石鼓洲興建堆填區的做法表示不滿。石鼓洲半徑二十公里範圍內包括長洲，大嶼山，屯門等的人直接受影響。對位於機場，港珠澳大橋出入的旅客燃點起一支全球最大的香煙！中國已對從香港進口垃圾實施了禁令。

聯合國在其最新的報告亦指，人類排放的有害氣體及處理垃圾不當令全球氣候惡化將做成不可逆轉的惡果。然而這種惡果是可避免的。

先進的零廢物處理計劃不單已廣為世界各地實施，亦是今后廢物處理時的普遍認知和標準。就以三藩市為例，現在已能80%的廢物再循環變為資源，並計劃於此2020年前達到100%再循環的目標。而鄰近地區台灣，自2003年起已實施一系列有效的善用資源，循環減廢的措施和政策，透過綠色生產，綠色消費，源頭減廢，收復再用和轉廢物為資源達至零廢物的目標。在意大利，已有2000社區共四千萬人口已參與廚餘或有機廢物的綠化處理。其中Rossano Ercolini女士鼓勵了五百萬人於三年內達到85%廢物再循環的水平。

又以荷蘭近期製定的減排目標為例：計劃一，減廢循環85%，焚化爐16%，堆填4%；計劃二，減廢循環68%，再生能源30%，堆填2%。

如香港的循環減廢計劃也符合上述標準，即使循環減廢68%至80%，那根本不需要花巨額去堆填和建造一個全世界最大最貴的超級焚化爐噢！

這怪獸焚化爐效益低，污染高，成本巨大。保守估計達500億，計及其他週邊設備和填海將達1000億之巨！

環保的原則是循環減廢，清潔能源。可超級焚化爐卻將廢物資源轉變成有害污染！

以石鼓洲和位於屯門秘密運行中的焚化爐為例，用焚化技術標準估計：投入的垃圾有17%會變成有害的渣滓，8%成為灰燼，剩餘的75%將變成各式各樣有害物質散播天空。

這種環境大災難完全可避免。另見"四年內減廢香港做得到"。懇請各位關注，莫讓香港成為國際污染大都會。

用四年時間將香港建成"零廢物之城"--"我們做得到."

先進的零廢物處理計劃不單已廣為世界各地實施，亦是今后廢物處理時的普遍認知和標準。就以三藩市為例，現在已能80%的廢物再循環變為資源，並計劃於此2020年前達到100%再循環的目標。而鄰近地區台灣，自2003年起已實施一系列有效的善用資源，循環減廢的措施和政策，透過綠色生產，綠色消費，源頭減廢，收復再用和轉廢物為資源達至"零廢物"的目標。在意大利，已有2000社區共四千萬人口已參與廚餘或有機廢物的綠化處理。其中Rossano Ercolini女士鼓勵了五

百萬人於三年內達到85%廢物再循環的水平。

所以香港四年內達到"零廢物"的目標是完全能做到。透過廢物／資源的源頭分類，輔以公平的垃圾徵費政策，豁免對配合減廢源頭政策的人士徵費，而對未經處理的廢物實施收費，促進各社會人士對零廢物，轉廢物為資源的生活責任起到積極作用。

這些都不是天馬行空，難以實行而又複雜昂貴的空談。的確，政府和決策者極需要一套新思維，把陳舊固化的觀念轉變。建立新思維模式將廢物全部轉變為社會資源。

行政上要具透明度，簡單直接，開啟思維及讓公眾參與。技術上要與世界接軌，要有先進視角，切合本港和週邊地區實際情況，可持續發展。使整體社會上下對零廢物策略的推行有理性和感性的認同。

顯然易見，利用現有行之有效的技術，將食物和有機廢物再循環再造，即可減少有機廢物傾倒於堆填區達50%。此外，星加坡循環建築廢料高達99%，比本港的85%有效。其主要原因乃本港每日有4300噸，即大約25%的建築廢料被傾倒於堆填區。現時星加坡的做法是，所有的建築公司都需要領有廢物再循環牌照並需負責收集和處理這些廢料。此外，使用可循環紙張，對玻璃，金屬和塑膠可循環20%至25%。其餘不可循環的，有害有毒的物料會比運往新型的氣化設施處理。

所得的效果：零廢物排放，零廢物堆填，零污染運輸。

達標時間：四年

所需投入資金：為現時計劃的超級焚化爐和擴建堆填區之50%

操作投入：零排放

期望第二階段：零堆填區

Part A. Hong Kong Waste Plans for Global Warming and Climate Change - Wasting the Environment

Waste sent to incinerators, landfills and so-called 'waste to energy' plants, is a major source of global warming gases and chemical air, water and earth pollutants. Organic food and green waste converted to biogas and fuels, exacerbates this ultra harmful pollution while incurring energy losses up to 80 %.

The damning summary is that these short-sighted waste solutions convert our 'waste problem' into the extremely dangerous 'global warming climate change problem', which the latest UN report states will increase the likelihood of severe, pervasive, and irreversible impacts.

This completely avoidable action is perverse and unsustainable, destroying nature, our environment and eco system.

Increasingly urgent 'feedback loop' warnings are being given to us by the only planet we have, Earth. Joseph Stiglitz, the Nobel Prize winner, told a telling joke at the recent Macau Eco conference. Two planets, one happy and the other unhappy. The happy planet says :What's wrong? The unhappy planet replies: People. The happy planet laughs and replies: Don't worry, that's temporary!

Atmospheric research pioneer Ralph Keeling, whose father Charles Keeling devised the shocking carbon dioxide scale, defines this problem simply as 'Fossil Carbon to Air.' Intertwined private and public vested interests in waste management are deliberately blind to the catastrophic consequences of their 'carbon to air' activities.

Hong Kong's proposed mega-incinerator, landfill extensions, the exorbitant biogas energy plants producing unwanted fertiliser, and the extant world's largest sewage 'stealth' incinerator now under test at Tuen Mun, all

completely fail the global warming test and put vast amounts of fossil carbon to air.

Two Dutch respondents recently stated Holland's waste handling rates. The first: Recycling 80%, incineration 16% and landfill 4%. The second, proposing multiple incinerators: Recycling 68%, waste to energy 30% and landfill 2%.

If Hong Kong's recycling rate was between 68% or 80%, then there would be no need for either a mega polluting incinerator or landfill extensions, per 'Going Dutch' landfill figures of 2% to 4%. No information was given on their recycling methods, which reflect progress to a zero waste sustainable economy. Nor was any reference made to mandatory European requirements that no recyclables or organic food and green waste can be sent to incineration or landfill by 2020.

This crucial information would be particularly relevant to Hong Kong, which plans to implement completely the reverse activities, at a much later date, at stupendous public expense.

Part B - Stealthy Passive Smoking for Tuen Mun, Tung Chung, the Airport and .. Shenzhen

Everyone is up in arms over the two magnificent monuments to pork barreling, unsustainability, non-recycling and global warming gases ignorance.

(1) The ultra expensive and completely unnecessary mega incinerator using carbon to air 'mature' i.e. out of date technology, to be constructed on Shek Kwu Chau, the pristine spiritual island, 3,000 metres in front of arguable the best beach in Hong Kong at Pui O, South Lantau.

(2) The even more expensive and unnecessary landfill extensions at the 'Apocalypse Now' named acronyms WENT, NENT and SENT landfills.

These grand edifices to aesthetic and environmental vandalism are conservatively budgeted at a capital expenditure (Capex) of around HK\$50 Billion, with as yet to be defined ancillary 'small' works like the storage of 273,750 tonnes of hazardous toxic waste ash produced a year.

If the recent padded tender costs for the OWTF 1 i.e. Biogas Plant in North Lantau are any guide, only HK\$1.53 Billion to deal 200 tonnes a day of food waste, another world record gravy train for HK, then the final Super Capex costs of the incinerator and landfill extensions will balloon to HK\$100 billion plus, after another carefully structured, overly complex tender process, designed of course to ensure environmental and financial protection! It should be noted that OWTF 2 is under Tender and there is only another 6,000 tonnes of food and green waste a day to go.

However under cover of this deception smokescreen, congratulations are really the order of the day for the Environmental Protection Department - EPD (Better called VIPD - Vested Interest etc.), as they have completely blindsided all the disparaged NIMBY opposition and Legco, by the actual completion of the real monster Tim Wan Quad Burner Sewage Incinerator next to the WENT landfill in Tuen Mun. This is largest excrement burner in the world. A real first for Hong Kong.

This 'French Again' designed, aesthetically masterpiece 'Stealth Incinerator', has been completed with only a slight delay at a relatively minor cost of HK\$5.5 plus Billion, is now under operational test. This simply described 'crap or shit' burner is designed to deal with 2,000 tonnes a day of dewatered sterilised human sewage or excrement.

The basic incineration equation, since mass is conserved not destroyed, as we do not yet have a fusion waste plant, is Input = Output. Input of 2,000 tonnes a day of dried sewage = Output of 500 tonnes a day toxic bottom and top ash left after burning + 1,500 tonnes a day green house gases and pollutants emitted to air. To get to the more impressive annual amounts readers just have to multiply by 365.

As a rough guide 60% of this output pollutants to air will remain within a 20 kilometre radius forever. Readers

who might want to enjoy the minimum annual fallout of 547, 500 tons should therefore consider visiting or living in Tuen Mun, Tung Chung, the Airport and a large part of Shenzhen, especially the up market areas of Shekou. This fallout area also conveniently covers all the entrance points in Hong Kong of the Hong Kong, Macau and Zhuhai Bridge.

The best way to think of this 'Guinness Book of Records' world's largest sewage burner, and global warming and pollutant gases producer, was perfectly described in a Youtube video.

Just think of it as a giant cigarette with 400 plus mainly organic chemicals going in and 4,000 chemicals including a large number of carcinogens coming out. Welcome to Hong Kong and compulsory passive smoking of carcinogens !

A number of basic questions rise from this wonderful commissioning event. Has anyone bothered to tell the local residents in Tuen Mun, Tung Chung, the Airport and our neighbours in Shenzhen of this delightful addition to their environment? The Mayor of Shenzhen recently drew attention to the potential detrimental effects of the WENT landfill on Shenzhen's social stability and prosperity. China has already erected a 'Green Wall' around the recalcitrant and unrepentant dirty waste smuggler, Hong Kong, to howls of protest from our so called plastic recyclers.

Has anyone from EPD bothered to tell our mainland neighbours of this happy event ? EPD's vociferous Mr Elvis Au might like to comment on cross-border co-operation in this field and also give confirmation of the minimum incineration outputs to air. Mr Au might also like to enlighten us on the pollution produced by transporting this de-watered sewage by sea from Stonecutters Island each day. In addition, where will the 182,500 tones a year of toxic ash remainder will be stored?

Part C - Wasting the Environment - The Burning Issues

The critical issue world-wide is Global Warming. Ralph Keeling, of CO2 measurement scale fame, defines this problem as due to 'Fossil Carbon Burning'.

Historical measurements of CO2 levels and their complex relationship with climate change are shocking. The Keeling Curve shows the natural seasonal interaction of life on our planet Earth, between photosynthesis in plant life absorbing CO2 and releasing O2, and reverse photosynthesis in animal life absorbing O2 and releasing CO2. The crucial difference in our modern industrial world is 'fossil carbon being released to air'.

However though Global Warming is the critical issue, it is totally absent from Government measures to deal with HK Waste.

Instead Incineration and Biogas plans, using public funds exceeding US\$6 Billion, are based on large volumes of 'fossil carbon being released to air,' partially solving the waste problem with a massive global warming, toxic emissions, pollution problem. This blatant septic omission is bizarre, deliberate and wilful.

Basic calculations for these outputs to air, from the new Sewage Sludge Incinerator at Tim Wan, Tuen Mun (TWTM) and the proposed Super-Incinerator on the pristine island of Shek Kwu Chau (SKC), should serve as a shocking and sobering wake-up call.

For example, taking the Basic Mass Conservation Incineration Equation as: Input Waste Mass (Tons) = Output Bottom Ash + Fly Ash in Filters + Oxidised Output Products and Gases Released to Air (Tons), if Bottom Ash is say 17 % and Fly Ash is 8 %, this would leave 75 % of the waste mass plus oxidation products being released into the air.

The TWTM Quad Incinerator, the world's largest Sewage Burner, now under test, will burn up to 2,000 Tons/Day of de-watered Sewage. SKC plans to deal with 3,000 Tons/Day of Waste.

Estimates for minimum release to air are: TWTM 1,500 Tons/Day, 547,500 Tons/Year; SKC, if completed, will release 2,250 Tons/Day, 821,250 Tons/Year. A total of 1,368,750 Tons/Year. Toxic ash residues requiring secure storage will also be produced: TWTM 182,500 Tons/Year; SKC 273,750 Tons/Year. A total of 456,250

Tons/Year.

In addition, no mention has been made of the massive logistics pollution from the current intensive truck and ship collection, transfer and transport of waste, including that to be taken for incineration, and toxic residues to be taken away.

We also understand that this quad burner sewage incinerator will produce power from this excrement burning and has the most expensive heated swimming pool in the world. Will Mr Au be so kind as to tell us whether the EPD will be applying for another world record for the heated swimming pool, and enlighten us where this power is actually to be used apart from heating the pool ?, and of course if CLP has ever been consulted on this matter ? If so what the agreed feed-in tariff might be?

However another more fundamental question arises from this happy event. Why was this monument to global warming gases, climate change and atmospheric pollutants ever built? The de-watered, sanitised sewage sludge is after all supposed to be safe, organic and contains sodium compounds from salt water flushing. It is full of natural nutrients and elements. Why was this organic nutrient stock not just taken out to sea and simply dumped in a pattern to aid recovery of our denuded fish stocks? Would Mr Au and the power behind the thrown, the elusive Permanent Secretary for the Environment and Director of Environmental Protection Ms. Anissa Wong Sean-yee, JP, of the EPD like to comment on this matter, as well as whether or not they have ever heard of Planet Earth, global warming green house gases, climate change and the Keeling CO2 curve?