



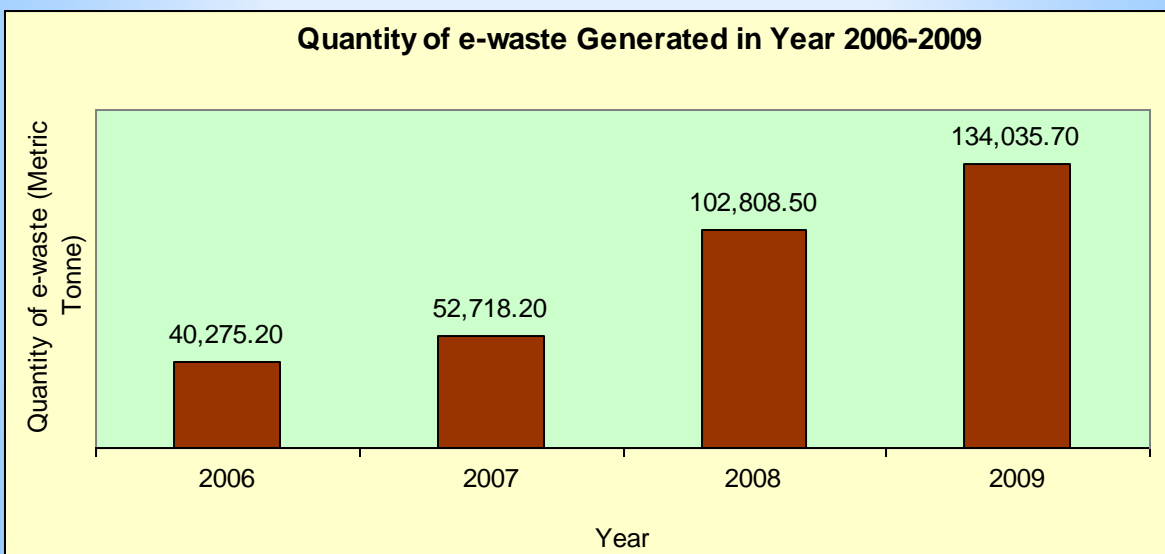
## WHAT IS E-WASTE?

In Malaysia, used electrical and electronic assemblies or otherwise commonly known as e-waste are categorized as scheduled wastes under the code SW 110, First Schedule, Environmental Quality (Scheduled Wastes) Regulations 2005. The SW 110 wastes are defined as wastes from the electrical and electronic assemblies containing components such as accumulators, mercury-switches, glass from cathode-ray tubes and other activated glass or polychlorinated biphenyl-capacitors, or contaminated with cadmium, mercury, lead, nickel, chromium, copper, lithium, silver, manganese or polychlorinated byphenyls.

The e-wastes are also listed as code A1180 and code A2010 under Annex VIII, List A of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989. As Malaysia is one of the Parties to the Basel Convention, the importation and exportation of such wastes must follow the procedures of the Convention. Importation or exportation of the wastes require prior written approval from the Department of Environment as mandated under Section 34B(1)(b)&(c), of the Environmental Quality Act, 1974.

Any person who contravenes this section shall be guilty of an offence and shall on conviction be punished with imprisonment for a term not exceeding five years and shall also be liable to a fine not exceeding five hundred thousand Ringgit Malaysia.

## GENERATION OF E-WASTE IN MALAYSIA





# EXAMPLE OF E-WASTE

Printed circuit board (PCB)



Used telephone



Used computer



Used wire and cable



Used printer



Used monitor



E-waste component



Used television



Used handphone



Used refrigeration



Used fax machine



Used photocopy machine



Used video player



Used washing machine



Used air-condition





## WHY IS IT DANGEROUS TO DISPOSE E-WASTE AT LANDFILL?

- E-waste contributes significantly to the heavy metals and halogenated substances contained in the municipal waste stream.
- Mercury will leach when certain electronic devices, such as circuit breakers are broken.



- The vaporization of metallic mercury and dimethylene mercury from e-waste will create hazards to the human as well as environment
- When brominated flame retarded plastic or cadmium containing plastics are landfilled, both polybrominated diphenyl ethers (PBDE) and the cadmium may leach into the soil and groundwater.
- Significant amounts of lead ions are dissolved from broken lead containing glass, such as the cone glass of cathode ray tubes, when mixed with acid waters which commonly occur in landfills.
- Uncontrolled fires may arise at the landfills. When e-waste is exposed to fire, metals and other chemical substances, such as the extremely toxic dioxins and furans (TCDD -Tetrachloro-dibenzo-dioxin, PCDDs, PBDDs and PCDFs - polychlorinated and polybrominated dioxins and furans) from halogenated flame retardant products and PCB containing condensers can be emitted.



# LICENCED E-WASTE RECYCLING FACILITIES IN MALAYSIA

In Malaysia, e-waste recovery facilities are categorized as e-waste partial recovery facility and e-waste full recovery facility.

The e-waste partial recovery facility involved in collecting, segregating, breaking, crushing and packing, of e-waste while the e-waste full recovery facility involved in all of the above activities and precious metal recovery process.

Up to 30 March 2011, there are 134 partial recovery facilities and 19 full recovery facilities of e-waste in Malaysia are licenced by Department of Environment.

State	Number of e-waste partial recovery facilities	Number of e-waste full recovery facilities
Johor	15	4
Kedah	15	1
Melaka	14	3
Negeri Sembilan	4	2
Perak	5	0
Pulau Pinang	39	6
Kelantan	0	0
Terengganu	0	0
Perlis	0	0
Pahang	0	0
Sabah	0	0
Selangor	27	3
Sarawak	7	0
WPKL	8	0
WP Labuan	0	0
<b>TOTAL</b>	<b>134</b>	<b>19</b>
	<b>153</b>	



## COLLECTION AND RECYCLING OF E-WASTE FROM HOUSEHOLD: WHAT WE CAN WE DO?



End-of-life or used electrical and electronic equipment is categorised as e-waste under Environmental Quality (Scheduled Wastes) Regulations 2005. As such, this e-waste needs to be handled and disposed off properly at facilities licenced by Department of Environment.

The public can now send their e-waste, for a start, limited to used mobile phones, mobile phones's batteries and their accessories, computers and their accessories, and television set to the e-waste collection centres operated by Local Authorities, Alam Flora Sdn Bhd and SWM Environment Sdn Bhd.



For a complete list of e-waste collection centres, please refer to Department of Environment's website at [www.doe.gov.my](http://www.doe.gov.my).





## LIST OF E-WASTE COLLECTION CENTRES

No.	STATE	OPERATORS	LOCATION OF E-WASTE COLLECTION CENTRES	No.	STATE	OPERATORS	LOCATION OF E-WASTE COLLECTION CENTRES	
1	PULAU PINANG	LOCAL AUTHORITIES: MAJLIS PERBANDARAN PULAU PINANG	Sunshine Jelutong, 9-27, Jalan Lenggong, 11600 Jelutong	64	SELANGOR	ALAM FLORA SDN BHD	TAMAN SRI GOMBAK (FRC), Tempat letak kereta (Di depan CIMB), Selayang	
2			Sunshine Farlim Hypermarket, No.1, Lintang Kg. Melayu, Bandar Baru Ayer Itam (Farlim)	65			Pusat membeli belah GIANT (FRC), Selayang	
3			Stor Pembersihan Kg. Jawa Baru, MPPP Stor	66			KOMPLEKS MUHIBBAH, TAMAN NIRWANA, AMPANG (FRC), Ampang Jaya	
4			Bahagian Perkhidmatan Perbandaran, MPPP, Jalan Padang Kota Lama	67			TOWN PARK, PANDAN INDAH (FRC), Ampang Jaya	
5			Jalan Chai, Balik Pulau, MPPP Kontena Jalan Chai	68			SUNWAY PYRAMID (FRC)	
6			Oldham, Tg. Bunga, MPPP Kontena Jalan Oldham	69			MENARA SUNWAY (MRC)	
7		LOCAL AUTHORITIES: MAJLIS PERBANDARAN SEBERANG PRAI	Taman Bertam Indah, Kepala Batas	70			CARREFOUR SUBANG JAYA (FRC), Subang Jaya	
8			Taman Pandan, Butterworth	71			DAMANSARA JAYA (FRC), Jln SS22/47, Damansara Jaya, Petaling Jaya	
9			Jalan Mohd Saad, Butterworth	72			SS3 RESIDENT ASSOCIATION (FRC), Resident Association Center, Jalan SS3/14, Petaling Jaya	
10			Taman Sri Kijang, Alma, Bukit Mertajam	73			ASRAMA PUSAT SRI TANJUNG CAR PARK (MRC), Shah Alam	
11			Taman Kota Permai, Bukit Mertajam	74			PEKAN SUNGAI BESAR (MRC), Lot PT 6216, Jalan Bunga Raya Besar, Shah Alam	
12			Taman Bukit Indah, Jalan Kulim, Bkt. Mertajam	75			SEKSYEN 11 (FRC), Bersebelahan dengan dewan serbaguna, Shah Alam	
13			Taman Sri Rambai Fasa 4, Bukit Mertajam	76			WISMA DRB-HICOM (MRC), Tempat letak kereta, Shah Alam	
14			Bandar Tasek Mutiara, Simpang Ampat	77			KOTA KEMUNING RESIDENT ASSOC. (MRC), MBSA dewan serbaguna, Seksyen 31/69, Shah Alam	
15			Taman Merak, Simpang Ampat	78	Pasar Awam Presint 16 (FRC)			
16			Taman Rupawan, Kepala Batas	79	PRESINT 8 Dewan Serbaguna (FRC)			
17			Apartment Permata, Bandar Perda	80	JAYA JUSCO CHERAS SELATAN (FRC)			
18			Taman Sri Rambai Fasa 1 & 2, Bkt. Mertajam	81	Kompleks Kejiranan Presint 9, Putrajaya (bertentangan Medan Selera Seri Teja) (MRC)			
19			Taman Keenways, Bukit Mertajam	82	P11A1/1, Presint 11, Putrajaya (MRC)			
20			Taman Ara Indah	83	Taman Sepekan Jaya ( <i>Run By Private</i> ) – FRC, Pekan			
21			Taman Makok, Bukit Mertajam	84	Taman Sri Maulana (FRC), Pekan			
22			Taman Duku, Bukit Mertajam	85	Di depan Bank Islam, Jalan Dato Bahaman, Temerloh (FRC), Temerloh			
23			Taman Sentul Jaya, Juru	86	Jalan Haji Kassim, 28400 Mentakab (FRC), Temerloh			
24			Perkampungan Juru, Juru	87	Pasar Besar Maran, 26500 Maran (FRC), Temerloh			
25			Taman Chuan Liew, BM	88	Terminal Bas, Nadi Kota, 26400 Jengka (FRC), Temerloh			
26			Taman Bukit Indah	89	Pasar Besar Jerantut, 27000 Jerantut (FRC), Temerloh			
27			Gereja St. Ann, BM	90	Sebelah Pejabat AFSB KERAYONG, BERA (FRC), Temerloh			
28			Taman Sukun, BM	91	Perkarangan Masjid Bentong, Bentong			
29			Taman Ara Indah	92	Depo Chamang, Bentong			
30			Gereja Baptist, Prai	93	Dataran Karak Carpark Area (MRC), Bentong			
31		Taman Meranti, Bagan Ajam	94	Kawasan Tanah Rata (Pasar Tanah Rata) (FRC), Cameron Highlands				
32		BAKAT TUDM, Butterworth						
33		NBVM 3R Committee, Jln. Chain Ferry						
34		Taman Bunga Raya, Raja Uda						
35		Taman Gemilang Semarak						
36	JOHOR	SWM ENVIRONMENT SDN BHD	Jusco Taman Universiti					
37			Pelangi Leisure Mall					
38			Taman Setia Indah					
39			Taman Bukit Indah					
40	MELAKA	SWM ENVIRONMENT SDN BHD	Taman Melodies, Johor Bahru					
41			Taman Orkid, Muar					
42			Taman Damai, Muar					
43	NEGERI SEMBILAN	SWM ENVIRONMENT SDN BHD	Jaya Jusco Ayer Keroh					
44			Taman Desa Baru					
45			Taman Sentosa					
46	KUALA LUMPUR	ALAM FLORA SDN BHD	Jusco Seremban 2					
47			Taman Oakland, Seremban					
48			Seremban Centre Point					
49			Taman Arowana Impian, Seremban					
50			PASAR MODEN CHERAS (FRC), Tempat letak kereta					
51			MIDVALLEY MEGAMALL (FRC), Zone A, P1 Parking Lobby, South Court					
52			JAYA JUSCO TAMAN MALURI (FRC)					
53			CARREFOUR, WANGSA MAJU (FRC)					
54			PLAZA MONT KIARA (MRC), Sunrise Fun Zone Community Centre					
55			BANGSAR PARK (MRC), Lorong Maarof 3 (Di depan Restoran Kausi)					
56			JAYA JUSCO METRO PRIMA					
57			BUKIT DAMANSARA (MRC), Di depan Bismi Minimart – Plaza Damansara					
58			PANTAI HILLPARK CONDO BANGSAR (MRC)					
59	TAMARIND CONDOMINIUM (MRC), Bandar Baru Sentul							
60	THAM WAH WAN TEMPLE (MRC), Jalan Klang Lama – Temple Parking area							
61	VILLA FLORA, TTDI (MRC), Level 2, Management Office area							
62	TAMAN TUN DR ISMAIL (MRC), ESSO Station - Jalan Burhanuddin Helmi							
63	TAMAN TUNKU APARTMENTS, JALAN LANGGAK TUNKU, BUKIT TUNKU (MRC), Tempat letak kereta							

**Note:**

All centres are closed on public holiday  
**FRC – Fixed Recycling Centres (PUSAT KITAR SEMULA TETAP)**  
**MRC – Mobile Recycling Centres (PUSAT KITAR SEMULA BERGERAK)**

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