



MANAGEMENT OF SOLID WASTE IN MALAYSIA THROUGH 5R CONCEPT

by

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INTRODUCTION ALAM FLORA



Incorporated in 1995

Subsidiary of DRB-HICOM Berhad

Provide Waste Management & Environmental Solution for Wilayah Persekutuan Kuala Lumpur, Putrajaya and Pahang

DRB-HICOM



100%



WASTE MANAGEMENT CONCESSION Operation & Scope of Work



Workers

11,500



Sub Contractor

200



Vehicles

1,500



Domestic Waste (tonne)

4,150

Skop Kerja Kutipan

Sisa Domestik

Sisa Pukul & Kebun

Bahan Kitar Semula

Skop Kerja Pembersihan

Sapuan Jalan

Pembersihan Longkang

Pemotongan Rumput

POWER PRESS COMPACTOR



COMPACTOR



OPEN-TIPPER WITH CRANE



ROAD SWEEPER



ITALA MINI ROAD SWEEPER



CATCH-BASIN



Alamflora



**INTELLIGENT
WASTE
MANAGEMENT**



**ALAM FLORA INTEGRATED
MONITORING SYSTEM
(AIMS)**

SISTEM MFLORA

SISTEM AVLS

FLORACARE

**SISTEM KESELAMATAN GPS
PEKERJA**

**INTEGRATED COMMAND
CENTRE**

SISTEM PENGURUSAN DATA

WASTE MANAGEMENT FACILITY INTEGRATED WASTE SOLUTION



STESEN PEMINDAHAN	PUSAT RAWATAN 'LEACHATE'	INSINERATOR	PENGURUSAN 'LANDFILL'
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✓ **Kapasiti transit sisa terbesar (2500TPD) di Asia**

✓ **1LTP KL Transfer Station, 7LTP Pahang Landfill, 2 LTP Incinerator**

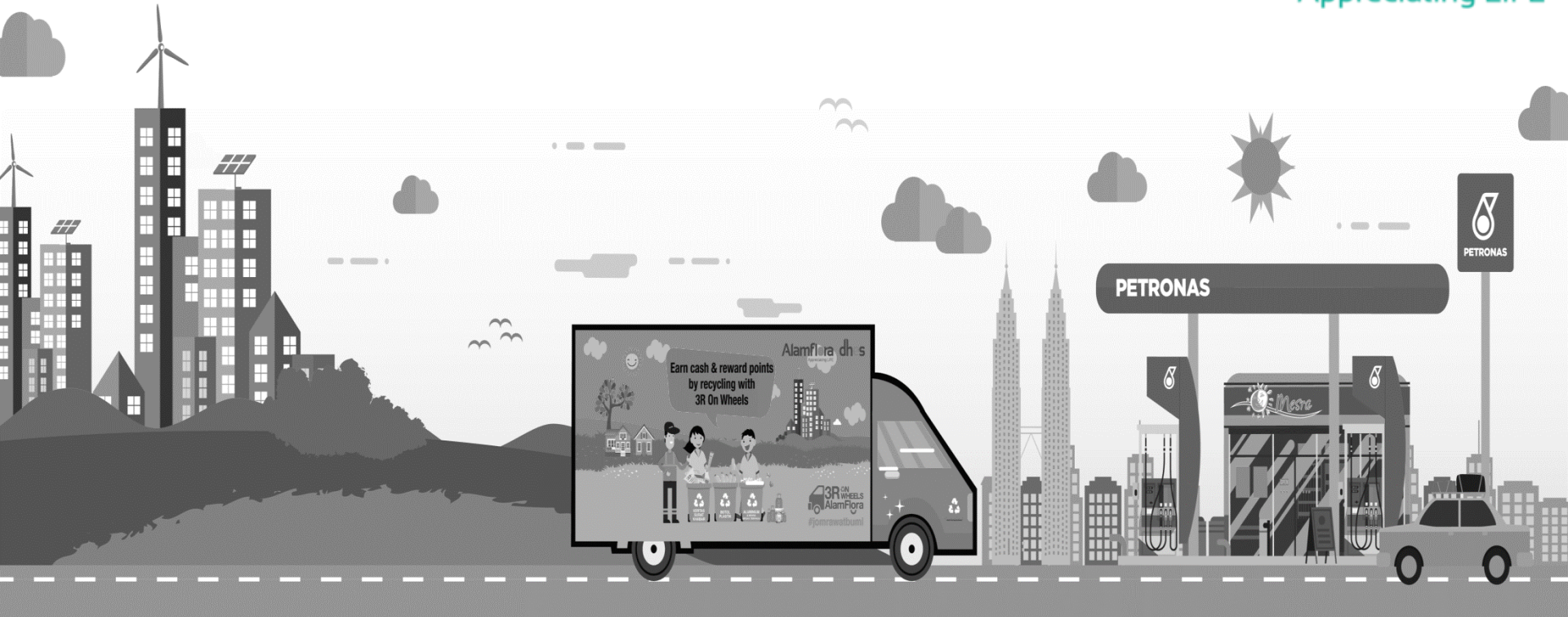
✓ **P.Pangkor Insinerator (20tpd) & C.Highlands Insinerator (40tpd)**

✓ **19 tahun pengalaman dalam pengurusan pelupusan sisa (8 unit)**



RAKAN STRATEGIK





3R PROGRAM : REDUCE, REUSE & RECYCLE
EMPOWERING RECYCLING

Enhance Separation at Source Program

SISTEM GANJARAN SAS RewardS@S

- ✓ Petronas Rewards Point
- ✓ Putrajaya



PROGRAM KITAR SEMULA

- ✓ Waste Wise
- ✓ KITS
- ✓ Community



BUY BACK CENTERS

- ✓ Working with Local Authority



KUTIPAN E-WASTE ON CALL



3R ON WHEELS

- ✓ Cash
- ✓ Reward Point



RewardS@S



- Registered as customer **RewardS@S**
- Print barcode system



- Collect all recyclable items at put in the bag



- Paste the barcode at the bag



- Our team will collect all the bags



- Notrification **RewardS@S**



Enhance Separation at Source Program 'Buy Back Centre (BBC)'

11 'Buy Back Centre' WPKL, WPPJ & Pahang

Presint 8
Presint 9
Presint 12
Presint 14
Presint 16

Presint 19
Cyberjaya
Jalan Bonus
MP Kempas Baru
MP Tiang Nam
MP Kuantan



'3R on Wheels'



Program "3R On Wheels" - Penukaran Barang Kitar Semula

- ✓ Tunai
- ✓ Mata Ganjaran Kad Mesra Petronas







RECOVERY
**SOLID WASTE INTEGRATED
FACILITY TERMINAL (SWIFT)**

SWIFT

**MATERIAL RECOVERY
FACILITY**



**FASILITI SOLID
RECOVERED
FUEL (SRF)**



**FASILITI PENGURUSAN
BAHAN
KITAR SEMULA**



**FACILITY RAWATAN
SISA KEBUN
'GREEN WASTE'**



**FASILITI PLACTIC
TO FUEL (PTF)**



HELP


SUPPORT

ADVICE

MOVING FORWARD

Challenges, Key Enablers & Target



 Knowledge and awareness of the players and public

 Lack of systematic recycling system

 Enforcement

- ✓ Policy & Regulation
- ✓ Recognised as a commodity
- ✓ Systematic Enforcement
- ✓ Collaboration and teamwork among players and policy maker
- ✓ Land availability in high waste generated area

-  Sustainability environment for better life
-  Increase recycling rate
-  Reduce Green House Gas through proper systematic waste management
-  Increase the usage of raw material from recycling source

Alamflora



Thank you