

# Vending Machines

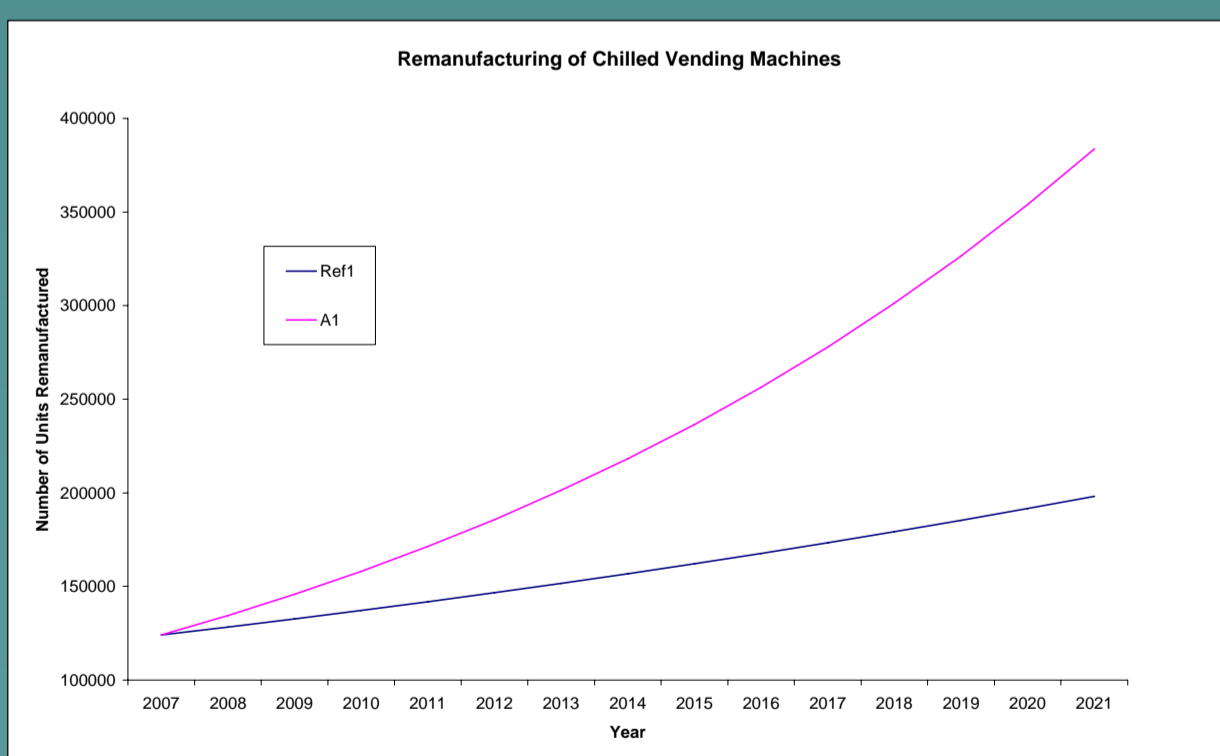
## The Market

- ◆ The vending machine industry is split into three business groups:
  - Vending Machine and Component manufacturers
  - Vending Machine Operators (who sell, distribute, and maintain vending machines)
  - Vending product suppliers (who supply the products and merchandise sold from the vending machines)
- ◆ Approximately 500 companies are involved in these business groups
- ◆ Vending machines are supplied and operated under a service contract
- ◆ Most machines are recovered at the end of the contract for remanufacture before re-entering service
- ◆ Importers are primarily interested in selling new machines, however, the market demands that all suppliers stock remanufactured machines
- ◆ There is constant innovation in vending machines (such as cashless payment, delivering food products at different temperatures, consumer entertainment with internet portals, point-of-sale advertising, Product levels monitoring through internet connections) resulting in more complex systems with faster obsolescence time

## Logistics of remanufacturing

- ◆ Contract lifespans are generally from three to five years resulting in machines being returned prior to the end of their working life
- ◆ There are approximately 300,000 vending machines being replaced each year
- ◆ The industry focuses more on repair and refurbish than a rigorous protocol for remanufacture
- ◆ Approximately 50% of all vending machines are refurbished and reused, whereas remanufacture accounts for 10% of the market
- ◆ There are only a small number of dedicated remanufacturers, meaning OEM's are not encouraged to develop a system which is easy to remanufacture
- ◆ The quality of the returned vending machines varies greatly. Variables such as the machine being placed in a confined space can result in it operating outside its design conditions. This must be taken into account when considering machines for remanufacture

## Possible future scenarios



Scenario	Possible policy Interventions	Units ('000)	Tonnes (kt)	CO <sub>2E</sub> (kt)	£ bn
Ref 1	None	2377	713	2923	2.9
A1	Encourage remanufacture through carbon credit policy and educational program	3476	1043	4275	4.2

## Conclusions

- ◆ The short term service contracts in the industry give rise to large numbers of serviceable vending machines being returned from the customer. This has led to a large industry of refurbishing and return of these units to service
- ◆ The service contracts allow remanufacturers access to high quality cores
- ◆ The market for vending machines is likely to increase over the medium term as innovation drives diversification of the machines to allow a wider range of vended products to be distributed. However, diversification is likely to reduce the remanufacturability of the machines
- ◆ Vending machine suppliers and end users should be encouraged to use remanufactured products
- ◆ The OEM industry should be engaged to simplify and standardise the increasing array of electronic components within the new machines. If this is not addressed then the remanufacturability of the units is likely to decrease over the medium term