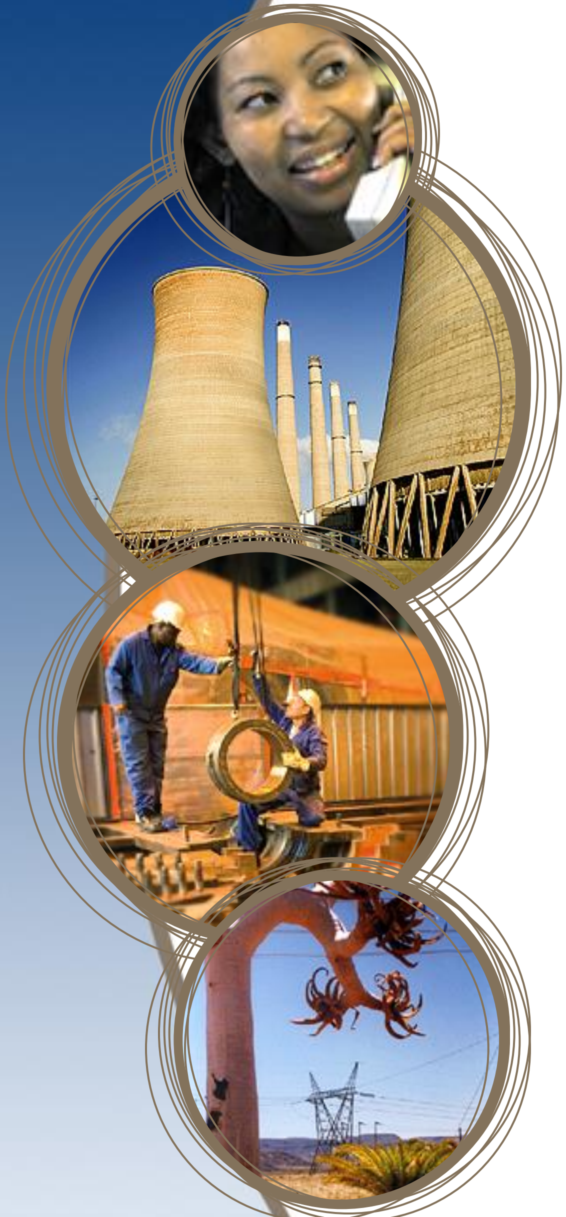


Appliance Labeling Workshop

Nyadi Mkulisi

30 May 2013

Introduction

Past: Reflecting on the past five years i.e. since the period of load shedding in 2008

Present: The current state of the system and why this winter is different to previous winters

Future: What you can do to **Beat the Peak** this winter and beyond by reducing demand from 5pm to 9pm, thereby creating a sustainable electricity supply for all South Africans

Content

Past

Present

Future

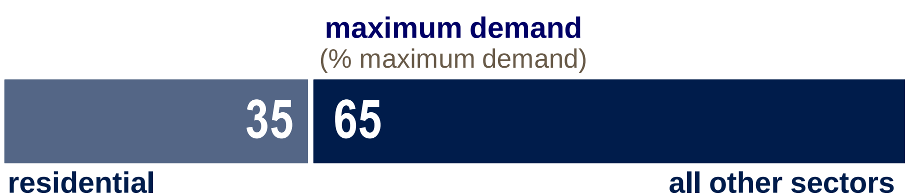
Globally, the residential consumer is placing higher demands on power networks

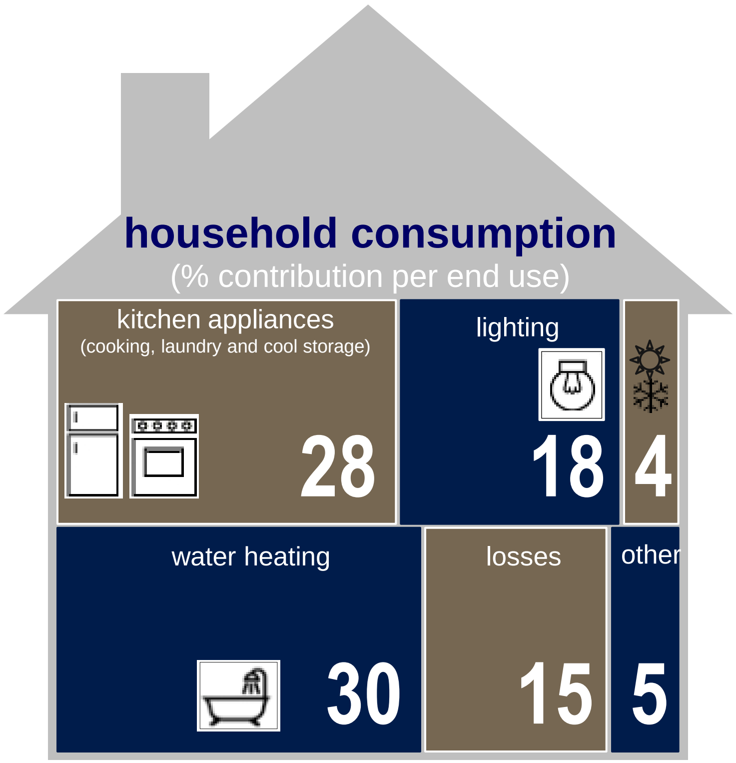
Eskom

- The residential sector globally is responsible for a large share of energy and electricity consumption and the related emissions into the atmosphere.
- Residential energy demand is also rapidly increasing, putting a strain on the available finances and infrastructures of several developed and developing countries.
- Improving the efficiency of energy consumption for the residential sector therefore presents an opportunity for significant energy savings and emission reductions.

Overview of the residential market potential

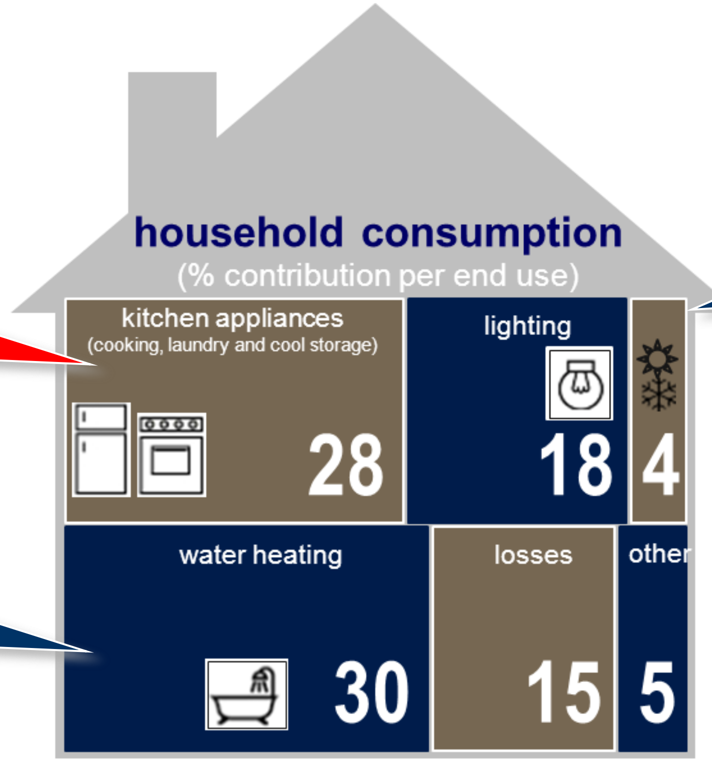
The residential sector is a significant electricity user in South Africa, specifically peak demand





(Source: DSM Sector Analysis, 2007. Residential demand: 13,908MW, Residential consumption: 46,402 GWh)

Focus area



Focus area

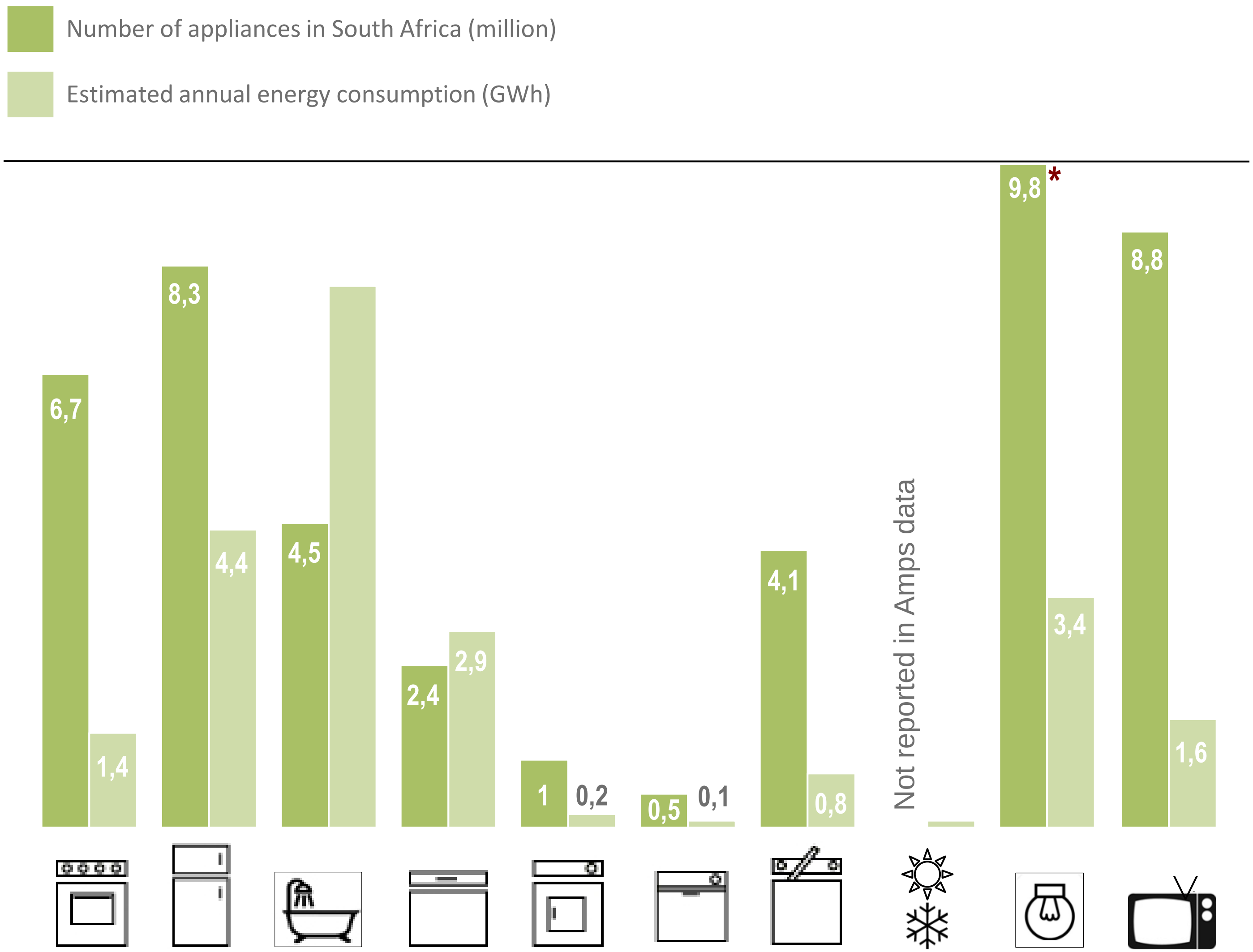
Lighting largely* addressed through an extensive CFL roll out programme

Remaining opportunity: LED down lighting

Water heating already targeted through SWH and heat pump initiatives

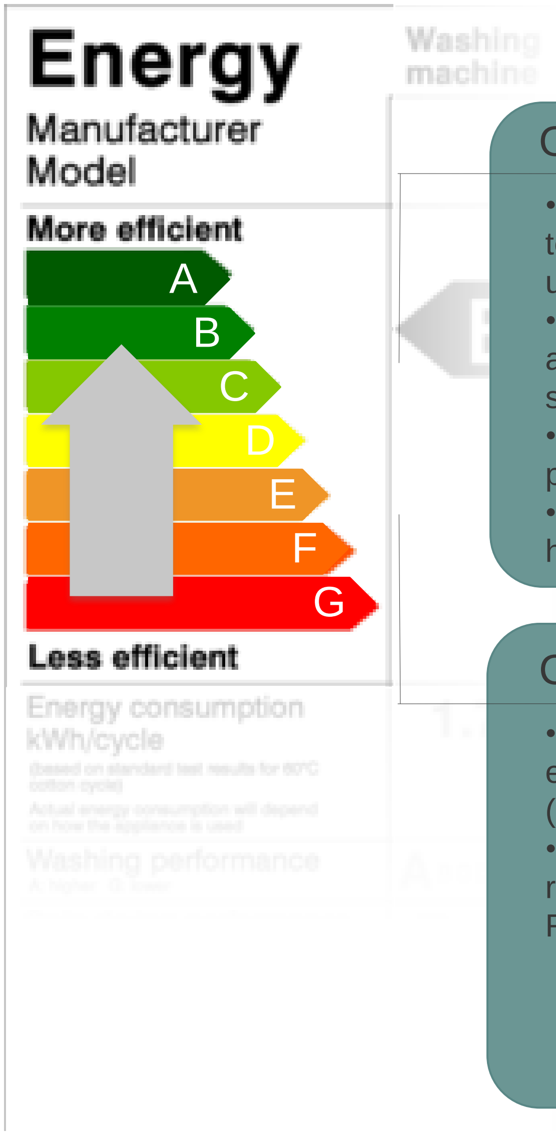
Is the South African environment ready for such an intervention? How should an appliance incentive programme be structured for the South African market?

Appliance numbers and estimated energy use suggest opportunity for efficiency improvement



* number of households listed, not number of lamps

The promotion of efficient household appliances is faced both with challenges and opportunities



Opportunities

- Interventions to improve and promote appliance efficiency has been limited both in terms of range of technologies and scope of measures (presents previously untapped potential)
- Current market penetration for efficient appliances and average efficiency of appliances sold are both **estimated** to be low (unconfirmed) (Significant potential scope for efficiency improvements)
- Recent downward trend in sales volumes associated with economic down turn, predicted to remain negative (Opportunity to engage retailers for sales incentives)
- Absence of MEPS presents risk of dumping of inefficient technologies (potentially higher percentage in circulation and greater opportunity for impact)

Challenges

- South African appliance label and standards / testing facilities have not been established. Imports with international certification do however dominate the market (RISK to local industry)
- The local retail environment is uniquely structured and highly competitive making retailers reluctant to entertain special requests and negotiations / compromise. Retailers give preference to initiatives that increase buyer number without risk or cost

Incentive programme

- Minimum grading to be determined
- Customers who want to buy more efficient appliances than the minimum to be incentivised
- Incentive to be attractive for better uptake
- Funding (NERSA/DOE/OTHER)

Additional slides

Looking ahead…

- **There will be periods throughout the year when the system is tight,** and this will continue until we add additional capacity
- Eskom remains **committed to completing the new-build programme**
- **Summer** is usually high **maintenance season** for Eskom's power stations, as demand is lower, allowing a window of opportunity for maintenance
- Eskom has put a **five year strategy** in place for Generation sustainability which includes a **firm commitment** not to postpone critical maintenance
- We will complete at least **10% planned maintenance** to achieve a reliable generation fleet

Looking ahead…

- **Winter 2013** is going to be different because **more maintenance** will be done this year than in previous years

- This will **improve plant reliability**, yet place additional pressure on the power system

- In the **short to medium term**, this will introduce risks to balancing supply and demand

- There is sufficient capacity to meet the demand most of the day.
  The concern is the peak demand between 5pm to 9pm
  – Reduce by 3 000MW

- **Residential customers**, particularly those that **use geysers, electric heaters and pool pumps,** can make the biggest difference by switching off this equipment for 4 hours

1923-2013

4 Hours, **4** Actions to Beat the Peak

- Evening peak is between 5pm to 9pm – **Four Actions to Beat the Peak**

1

Switch off all
geysers and
pool pumps
during peak

2

Switch off
all non-essential lighting

3

Find
alternatives
to electrical heating

4

Respond to the
Power Alert messages by
switching off all
appliances that are not being used

5pm to 9pm

Beat the peak

Thank you