

Outline of Incentives Proposed to Increase the Uptake of Energy Efficient Appliances in South Africa

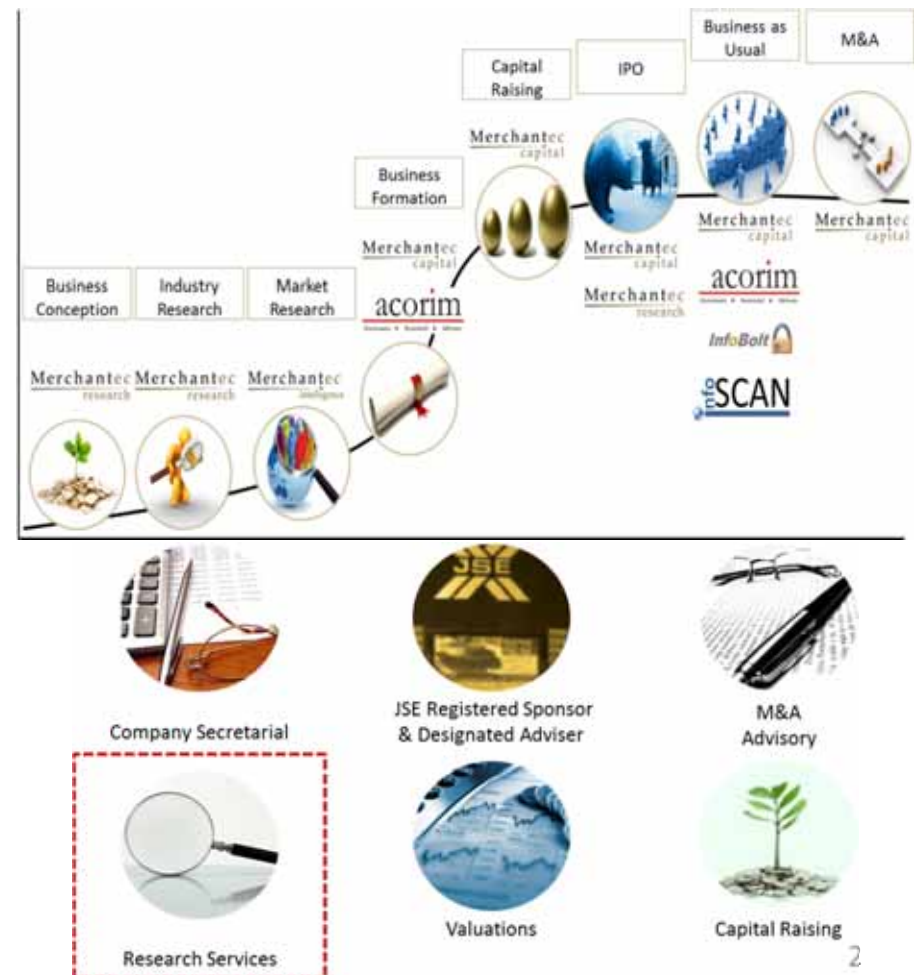
DOMESTIC USE OF ENERGY CONFERENCE
Draft MEPS and Appliance Labelling Workshop Programme
31 March 2015

About Merchantec

Merchantec is one of the largest independent corporate finance advisory and research companies in South Africa. We have built our business from the perspectives of capacity, expertise and systems and have a reputation of being able to provide quality service to our clients through our solutions orientated approach, quality of deliverables, turn-around times, skilled staff, in-depth knowledge and our structured approach to all tasks we undertake.

Merchantec prides itself on its entrepreneurial spirit, which lends itself to engagement with our clients on a strategic level.

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Global Incentives

There are 3 main approaches to EE Incentives globally

Manufacturing Incentive

Positives	Negatives
Easier to administer	Needs very efficient M&V capability
Easier to measure	Harder to create awareness
Has a larger immediate effect	Cost more to roll out on a large scale
Helps local manufacturing and good for job creation	No guarantee that incentive will be passed on to the consumer



End-User Incentive

Positives	Negatives
End-user has a choice	Administrative intensive
Make use of energy intermediaries	Small interventions with no guarantee for uptake
Encourage behaviour changes	Takes longer to have an effect
End-user start seeing the energy savings	Can not work without extensive educational programme



Current Incentives



Mass Roll-outs

- Low Pressure Solar Water Heating
- Residential Mass Lighting Roll-out (CFL)
- Shower Heads, Timers & Geyser Blankets

Standard Rebates

- High Pressure Solar Water Heating
- Heat Pumps



Ongoing funding challenges



Manufacturing Incentives

- Manufacturing Competitiveness Enhancement Programme (MCEP)
- Foreign Investment Grant
- 12I



Manufacturing Incentives

- 12L (45c per kWh)
- Incandescent Lighting Tax

No real impact on residential energy users



How to Identify and Select Incentives for South Africa

Criteria	Description	Outcome
Impact on energy consumption	Needs to make a substantial contribution to potential residential energy saving	Hot water, lighting, cooking, refrigeration
Local manufacturing	Money spent must contribute to local manufacturing and job creation	Lighting, geysers, refrigeration, cooking appliances
Impact on the poor	Needs to help those least likely to be able to help themselves	Lighting, hot water, refrigeration and cooking
Current working programmes	Take from programmes currently working	SWH and lighting
Critical mass	Needs to be able to have a significant intervention	Lighting, refrigeration, cooking

Product Attractiveness Outcome



No
Air Conditioners

Luxury product without critical mass or local manufacturing



No
Audio and Video

Virtually no local manufacturing



Electric Water Geysers

Yes



Electric Lamps

Yes



No
Dish Washers

Luxury product without critical mass or local manufacturing



No
Washing Machines

Virtually no local manufacturing



No
Tumble Dryers

Virtually no local manufacturing



No
Washer Dryer Combinations

Virtually no local manufacturing



No
Fridges

Relatively small volumes of true fridges are sold in South Africa



No
Freezers

The focus for fridges should be an ambitious standards programme



Fridge Freezer Combinations

Yes



No
Electric Ovens and Stoves

Technically hard to improve efficiency

Proposed Incentives for South Africa

Incentive	Description
1 Manufacturing Incentive	
Lighting and Geysers	Appliance improvement (standards programme for geysers) Localisation for LED manufacturing
2 End-user Incentive	
Lower LSM Product Swap End-user Incentive (Rebate)	Focus on localisation and fairness

Proposed Incentives

Lighting Incentive: Product Swap at your Local Retailer

Description	Impact
Technology	LED
Energy Consumption	18.4% of the “average household’s” energy consumption
Replacing	End of life CFL and any incandescent
Energy Efficiency Factor	50% efficiency LED versus CFL
Where	Retail level
Volume	12 million units per annum
Cost	100% incentive @ R40 per unit = R480 million p/a
Duration	5 years
Potential energy savings	3 706 GWh @ R1.51 = R5.6 billion per annum (consumer level)
Other steps	Minimum standards
When	ASAP – development of a local industry NB

Proposed Incentives

Geyser Incentive: Manufacturing Incentive to Support Pro-active Change

Description	Impact
Technology	Electric geysers
Energy Consumption	30% of the “average household’s” energy consumption
Replacing	New and replacement geysers
Energy Efficiency Factor	10% energy saving
Where	Manufacturing level
Volume	~300 000 units per annum
Cost	R250 – R300 per unit = R90 million per annum
Duration	18 months
Potential energy savings	1 028 GWh @ R1.51 = R1.5 billion per annum (consumer level)
Other steps	Minimum standards
When	ASAP – development of a local industry NB

Proposed Incentives

Fridge Freezer Swap: Accommodating the Need of the Poor

Description	Impact
Technology	Fridge freezer combinations
Energy Consumption	8.1% of the “average household’s” energy consumption
Replacing	Inefficient fridges and chest freezers
Energy Efficiency Factor	15% energy saving
Where	Product Swap (Retail level)
Volume	560 000 units per annum (4.5 million units in total)
Cost	+/- R1 500 per unit = ~ R9 billion pa (excluding admin and recycle)
Duration	8 years
Potential energy savings	Approximately R391 million per annum
Other steps	Set up and manage a recycling of old appliances
When	ASAP – development of a local industry NB

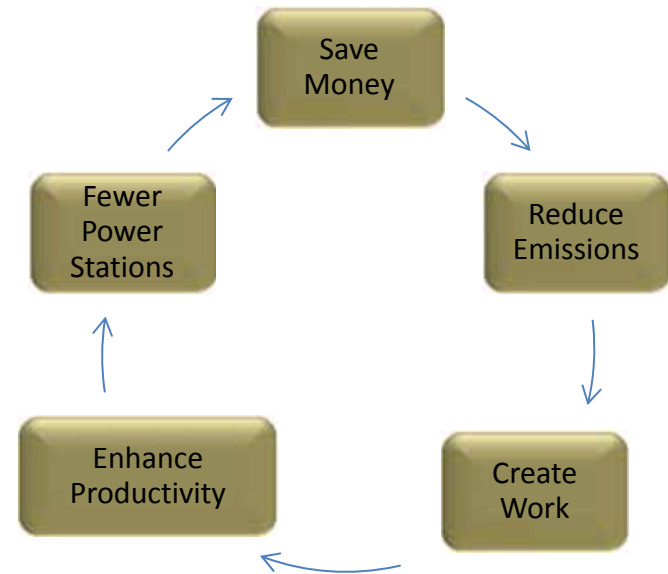
Proposed Incentives

End-user Rebate: Freedom to Choose for Those Who Pay Their Taxes

Description	Impact
Technology	Any technology
Energy Consumption	NA
Replacing	Any appliance
Energy Efficiency Factor	Depends on the appliance
Where	Through your tax return
Volume	No more than 2 million people are expected to participate
Cost	No more than R400 per application per annum
Duration	10 years
Potential energy savings	NA
Other steps	Identify qualifying technology
When	Medium term

- EE is a global trend and SA will benefit regardless of current programmes
- Life time cost of appliances
- Link to locally manufactured appliances
- Alternatives to incentives (awards, insulation and new ways of doing things)
- Funding remains a challenge
 - Real merit for Treasury to support incentives

Benefits of a Successful Energy Efficient Programme



Questions

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