Policy, legislative and financial requirements for SWH Implementation in the Western Cape

PGWC

RE & GE Conference

5 November 2010

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Why SWHs?

- Potential to remove 2 power stations from the grid
- High job creation in industry
- Reduces carbon emissions
- Financially sound investment

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SWH Targets

- National – 1 million by 2015 (DoE)
  - 900 SWHs/day, currently 100

City	Target (by 2015 unless otherwise stated)
Joburg	150 000
Cape Town	300 000
eThekwini	50% by 2020
Nelson Mandela Bay	60 000
Ekurhuleni	7 000 by 2011
Tshwane	60 000

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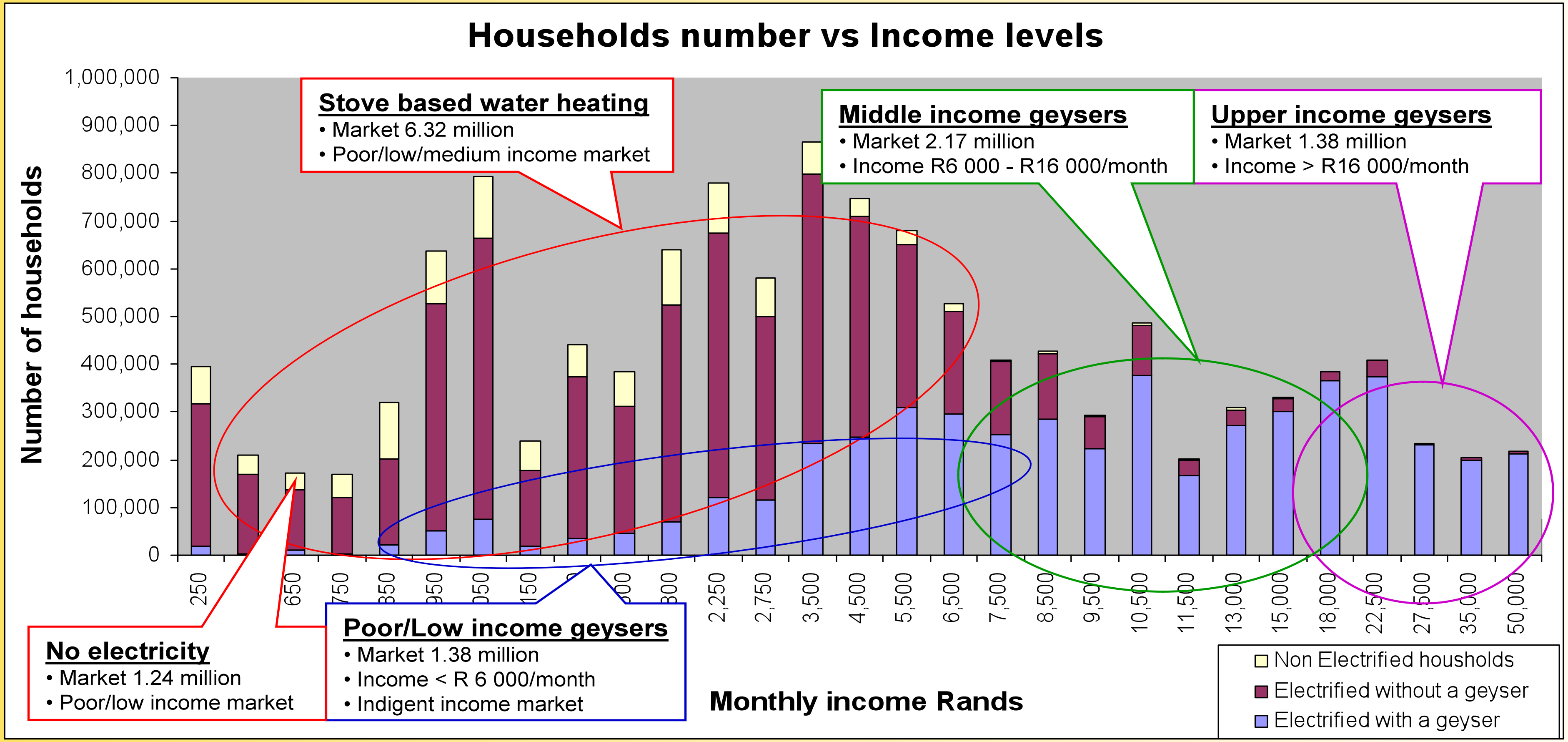
Residential Market for Hot Water Use



Residential Market for Hot Water Use

Existing household methods of water heating by LSM	**Number of Households**
Upper income households with geysers	1.38 million
Middle and low income houses with geysers	3.55 million
Low income households which use stoves or kettles for water heating	6.32 million
Total households	**11.25 million**

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Residential Market for Hot Water Use-Western Cape

Existing household methods of water heating by LSM	Number of Households
Upper income households with geysers	289 248
Middle and low income houses with geysers	482 081
Low income households which use stoves or kettles for water heating	598 282
Total households	**1.369 million**

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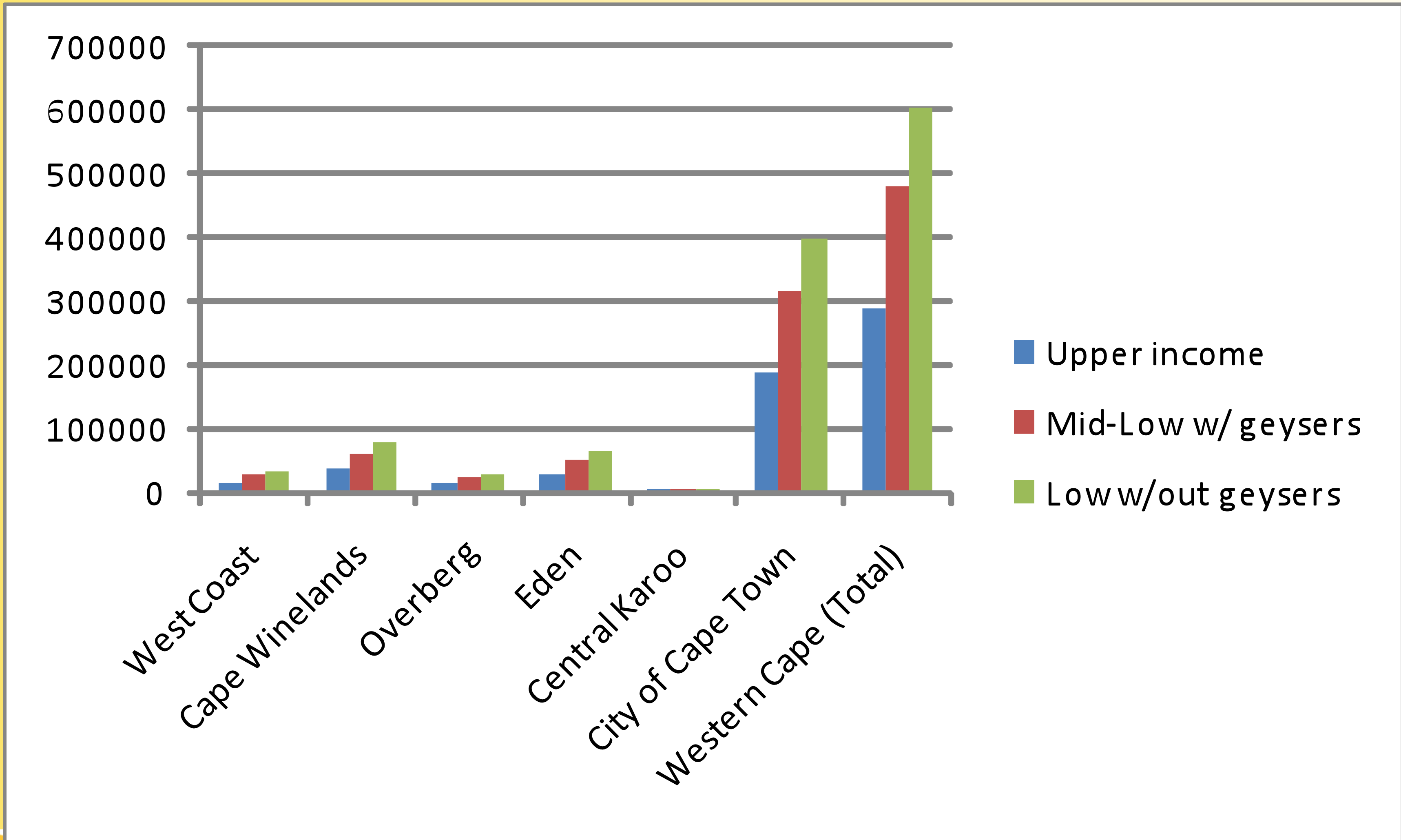
Residential Market for Hot Water Use-Western Cape



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International Best Practice

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Lessons Learnt

- Legislation for new build a common factor in leading countries
  - Lowest cost option to government
  - Leads to most dramatic increase in SWHs installed, in both new build and retrofit markets
  - Barcelona & Spain: complete absence of subsidies, but with legislation
- Subsidies have problems
  - Installation slows/halts when subsidies removed
  - Installations stall when subsidy announced
  - Where it has worked: sustainably managed progamme linked to avoided cost of generation

National Context

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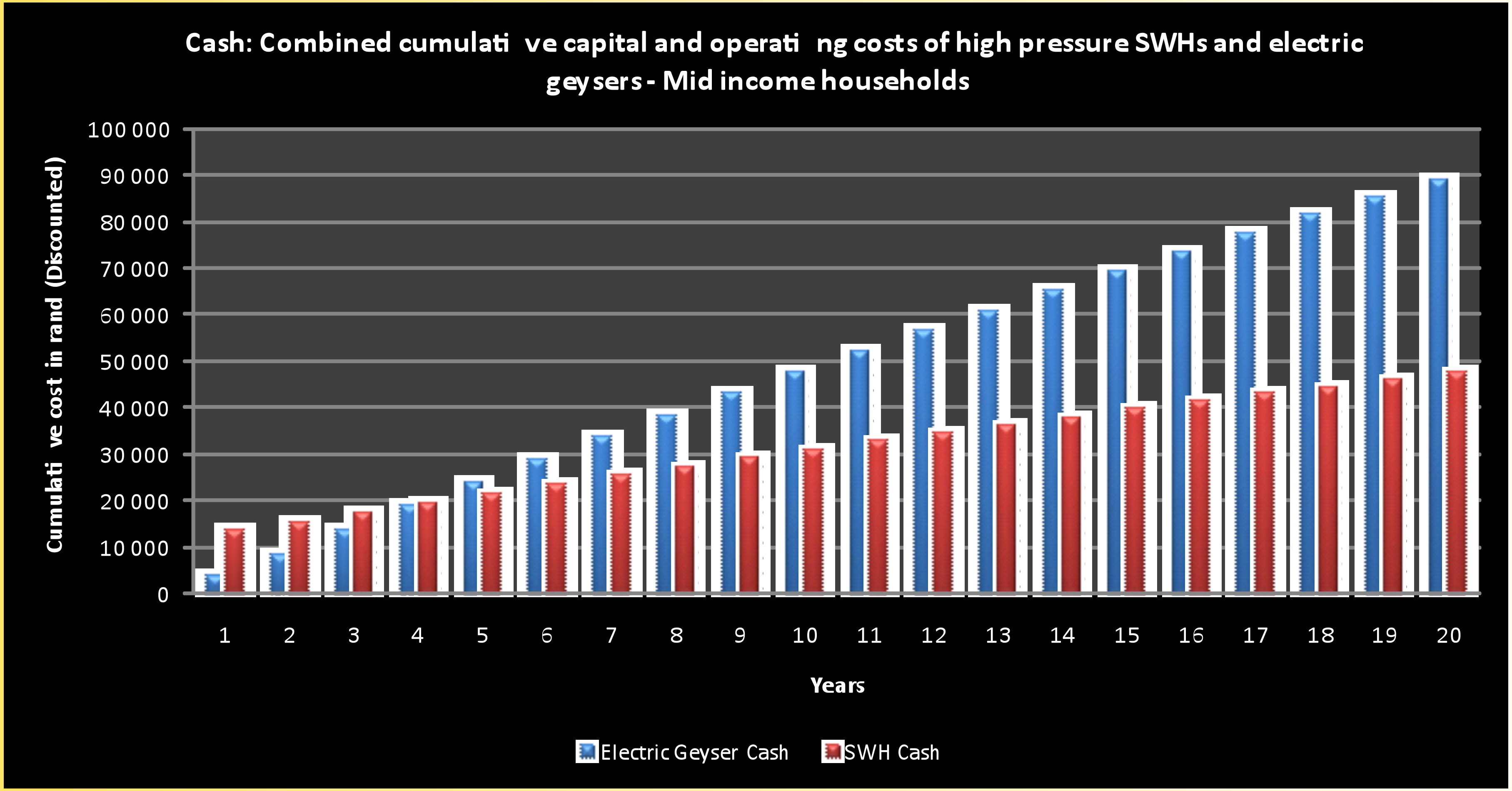
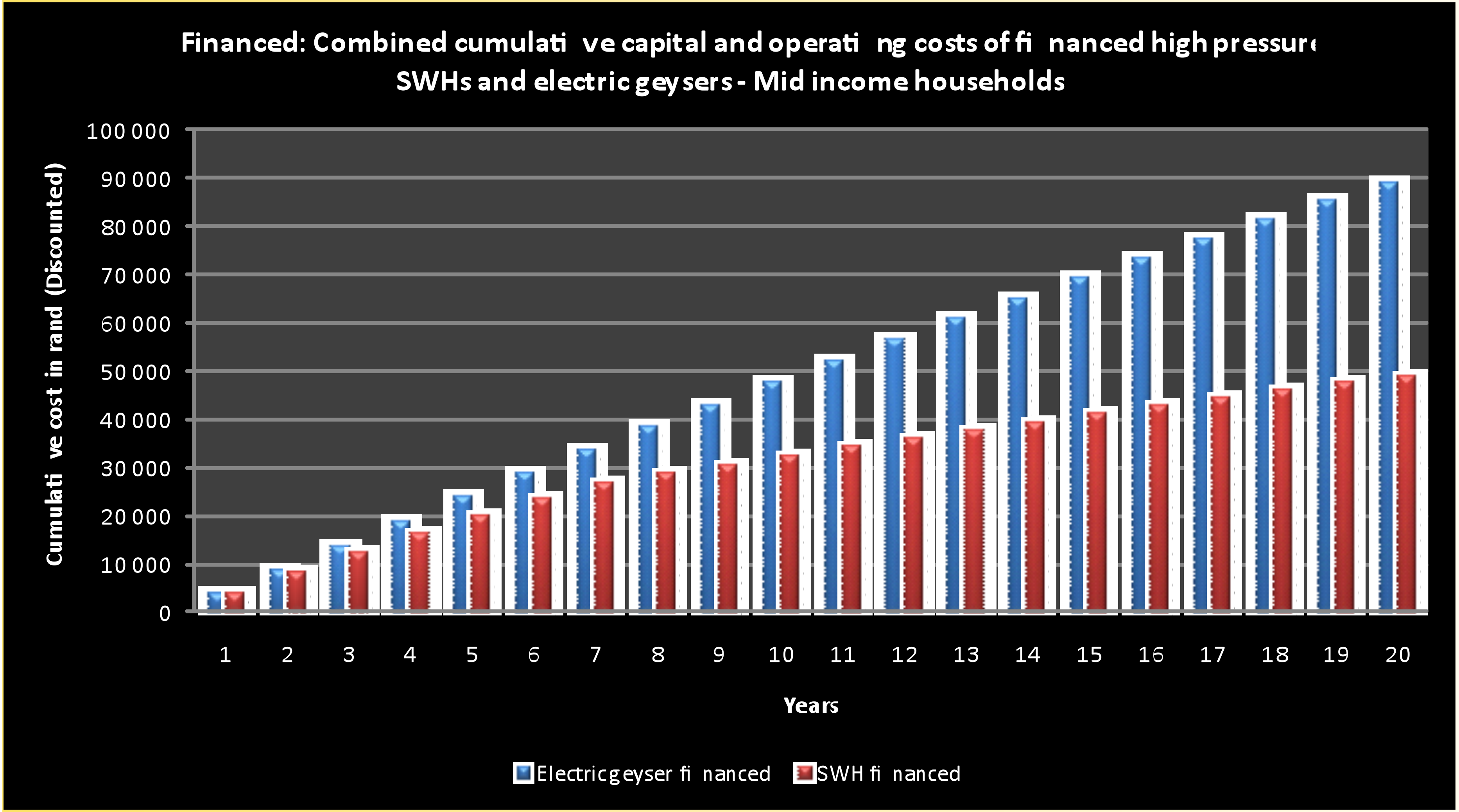
Eskom Incentive

- R1.24 billion over 3 years
  - R760 million high pressure (approx 100 000 units)
  - R480 million low pressure (approx 120 000 units)

Eskom Incentive-cash



Eskom Incentive - financed



Eskom Incentive - Issues

- Must be stable
- Eskom not ideal long term home for scheme
- Insufficient to meet national target

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DoE Standard offer Programme

- Currently being set up
- Aimed at low-mid income
- Not clear how it will work yet, but not coming from Eskom funds

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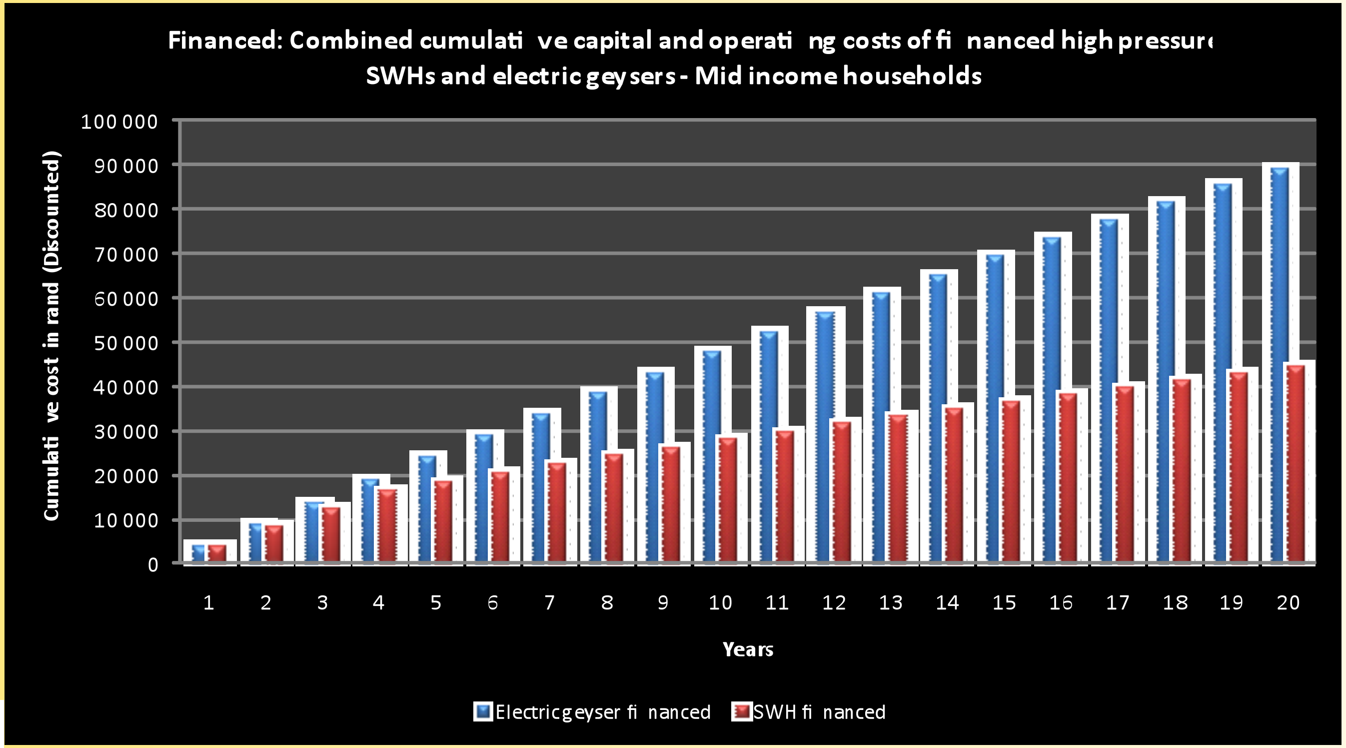
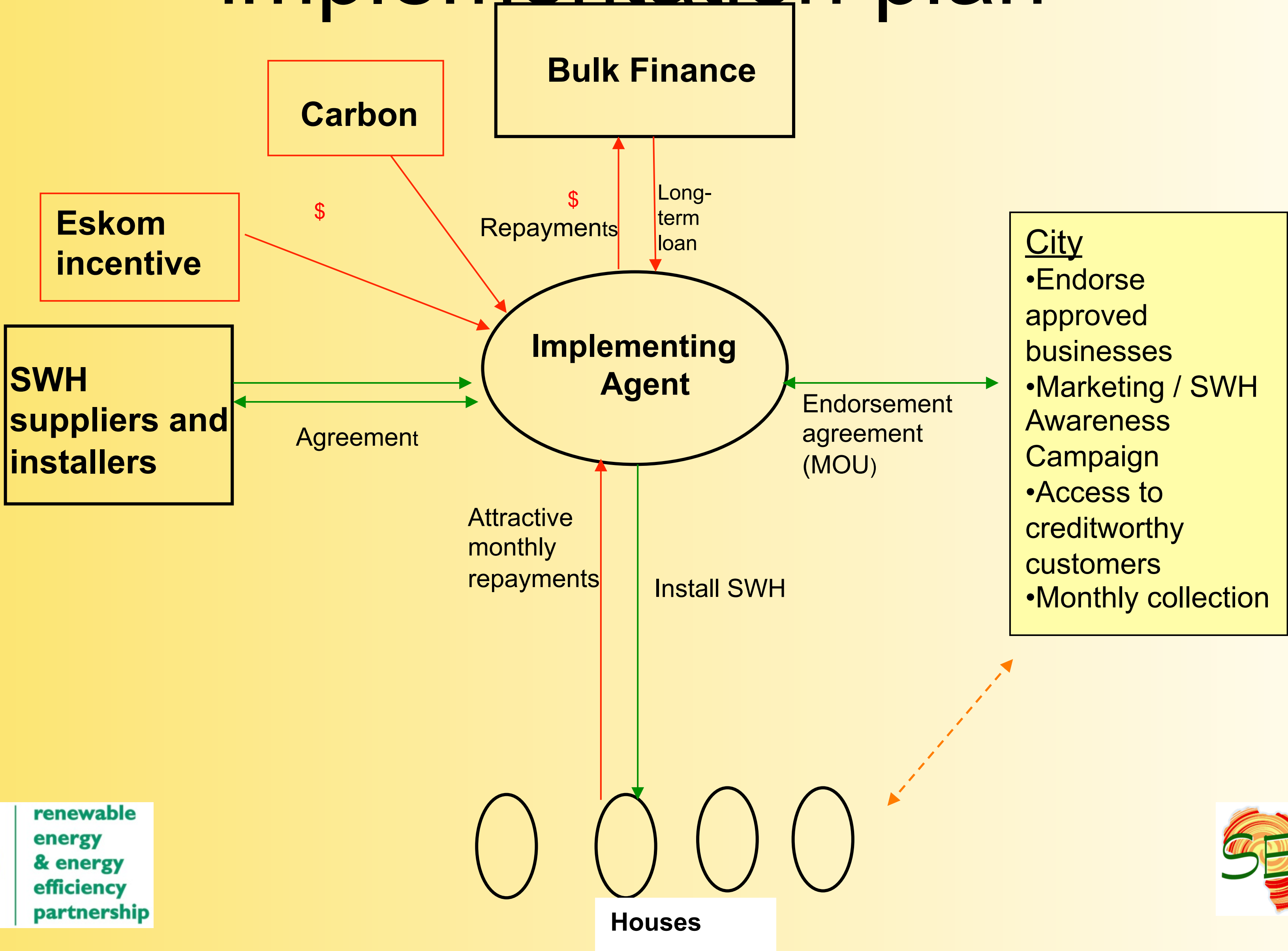
Mass rollout initiatives

Rate paying households

- Reduced costs through bulk procurement, attractive financing, carbon credits and Eskom incentive
- Attractive monthly repayments



Model for financed SWH implementation plan



Rate payer rollout - Issues

- Slow start up in cities
- Dependent on stable incentive initially
- Carbon financing still a problem

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Recommended actions for Western Cape

- Follow Cape Town's progress, if successful use same methodology for larger centres in districts (sufficient houses to be feasible)

- PGWC to interact with DoE once Standard offer programme is clear

Low income mass rollout initiatives

- Workable business case: Eskom incentive (around R4000) sufficient to install for free if mass rollout approach taken – NMB
- DoRA funding also allocated R300 million to low income SWHs (Sol Plaatje, Naledi initially)

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Low income rollout - Issues

- Dependent on stable incentive
- Carbon financing still a problem
- Maintenance and awareness raising critical – MOU required to ensure this

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Recommended actions for Western Cape

- Facilitate potential DoRA funding for smaller munics

- Disseminate NMB MOU signed between City and implementer to ensure maintenance and awareness raising

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Legislation

- National
  - EE in buildings Amendment to National Building Regulations Act
  - Addendum onto SANS 10400
  - 50% of water heating in new buildings from sustainable source
  - Released for comment July 2010, 8 months training, apply April 2011
- Bylaw
  - Potentially implementable by 2011
  - May have higher standards

Legislation Justification

- ✓ International Best Practice
- ✓ Legally sound
- ✓ Financially sound
- ✓ National technical standards in place
- ✓ Suitable supply capacity available
- ✓ Implementable and Enforceable

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Recommended actions for Western Cape

- Munics to ensure relevant staff trained and able to enforce
- Draft SWH bylaw to be disseminated to all munics if National process stalls

Recommended actions for Western Cape-Industry

- Investigate and support product innovation and manufacturing capacity in Western Cape
  - Incentives
  - Soltrain
  - IDC

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Thank You

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Sustainable Energy Africa

Association incorporated under Section 21

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