



Policy and legislative requirements for SWH Implementation in Cities

Soltrain Workshop
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We can remove 1-2 power stations from the grid if a national rollout of SWHs is achieved



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Jobs, jobs, jobs

- To meet Cape Town's target of 300 000 units would require 800 000 person days of work



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Benefits for environment and global warming

- Ave 2T per year per SWH installed



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Financially sound

- Financially beneficial to end user
- Financially beneficial to country in avoided generation costs



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Very slow SWH implementation rate!



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City Targets

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



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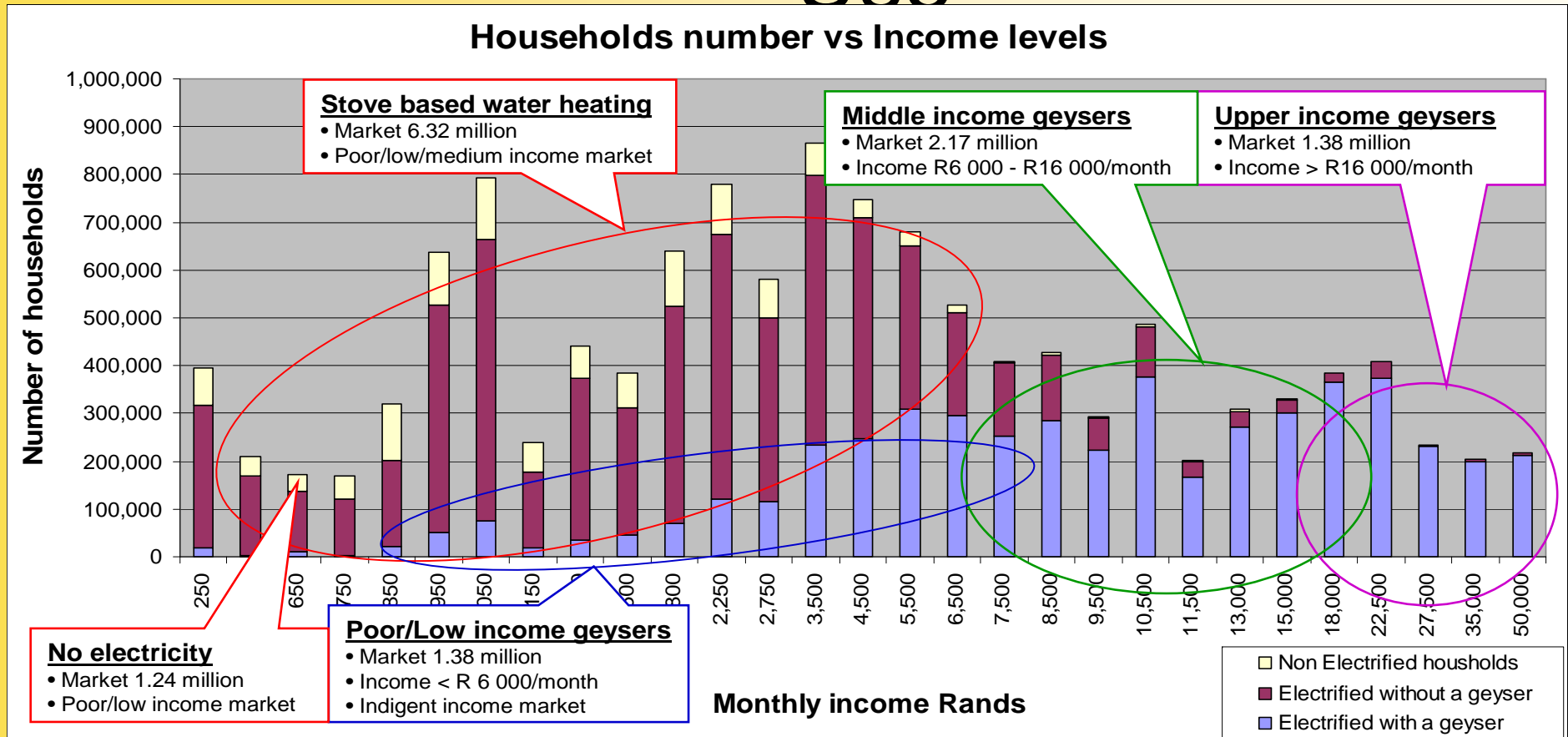
How do we achieve a mass rollout of SWHs?



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Residential Market for Hot Water Use



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National SWH Strategic Framework and Implementation Plan



The carrot or the stick?

Institutional/Business Drivers

Local, provincial, national govt

Eskom DSM

Financial institutions

Business

CDM

Legislation

Bylaws

Building Codes

Incentives

Subsidies

Grants

Tax rebates

Creative business solutions

Carbon financing



SWH Implementation Rate
'Donkey'

reep

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International Best Practice



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Implementation interventions

- Legislation/regulations
- Rebates/subsidies/grants
- Low-interest loans
- Tax concessions
- Import duties
- Quality control
- Government & industry support
- Awareness programmes



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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 programme linked to avoided cost of generation



Legislation: The best intervention!

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



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Financial case



- Need a clear financial benefit case for the end user if legislation is to be uncontroversial
- How does including a SWH benefit the end user?



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Financial Conclusions



- ✓ Financing a new build SWH is immediately financially beneficial to end user from 6 - 20 year bond repayment basis
- ✓ All new houses above RDP level to benefit from having a SWH.



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Legislation Justification

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



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Legislation recommendation

Effective legislation enforcement requires a **trained, motivated building inspectorate** in all municipalities.

Current status – **stressed, understaffed, disempowered**. Support is required – **call to government to address this**.



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Quick national policy and initiatives overview

- DoE
 - South African National SWH Strategic Framework and Implementation Plan
 - Target of 1 million in next 5 years
 - 800 SWHs per working day, currently 80
 - Paradigm shift in delivery required
 - Eskom incentive planned to move across to DoE – standard offer to suppliers in concession areas-key not to create confusion in financial planning
 - Mid-low income – free of charge to small charge depending on system

High income – attractive financed solutions



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Quick national overview

- DTI
 - EE legislation for buildings (incl 50% water heating requirement from efficient sources)
- Eskom
 - SWH incentive doubled in 2010, good financial cases starting to be made for retrofit,
 - potential shifting across to DoE, but flexibility will be removed if this occurs
- DPE
 - Installer training – currently ‘training the trainers’, working with PIRB on certification

How can cities contribute?

- Mid-High income and commercial rollout through
 - Efficient water heating **legislation enforcement**
 - **Financed monthly repayment schemes** for the new build and retrofit markets **driven either internally or externally**. Possible unit price reduction from municipal EE fund.
 - Potential increased levy on monthly electricity bill for electric geyser users



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How can cities contribute?

- Low income rollout through:
 - Partnership with province new build programme (Nelson Mandela Bay)
 - Possible price reduction per unit from EE fund (ring fenced EE portion on electricity bill)
 - Reduced cost from Eskom incentive
 - Co-ordinate future free installation from DoE standard offer



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Concluding remarks – key requirements for success: Low Income

- STABLE and SUSTAINABLE national subsidy scheme in place! (A real problem currently!)
- BULK PROCUREMENT to match low pressure SWH subsidy
- AWARENESS RAISING and MAINTENANCE PROGRAMMES essential
- CARBON financing for all sustainable energy interventions in RDP households



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Concluding remarks – key requirements for success: Mid-High

- LEGISLATION is essential – but SUPPORT for BUILDING INSPECTORATES key to ensure implementation on the ground
- STABLE and SUSTAINABLE subsidy scheme in place!
- ATTRACTIVE FINANCING and reduced costs from BULK PROCUREMENT will make SWHs attractive to mid-high income
- CARBON financing must be sourced



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Thank You



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