

# ICLEI Conference Cape Town: March 2006



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## **Financial Model for Housing Energy Upgrade Projects in SA**

Interim Report

# Kuyasa: Low cost Housing Energy Upgrade CDM project



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Retrofit 2309 low-cost RDP houses in Kuyasa, Khayelitsha with:

- ceiling insulation,
- solar water heaters and
- Compact Fluorescent Lights



# Kuyasa CDM Project Design

- Partnership between CTCC and SSN
- First SA registered project
- First Gold Standard CDM project internationally
- Suppressed Demand Baseline
- CER Revenues contribute towards project costs



# PROJECT BENEFITS



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- Alleviates energy poverty - saves R600/hh/annum in energy costs
- Creates over 100 person years employment
- Improves health conditions for occupants
- Improves local air quality
- Contributes towards meeting renewable energy targets
- Example of sustainable energy in Western Cape
- Reduces peak energy demand
- Benchmark for replication throughout SA

# Designed for Replication



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-The project sets a precedent in the CDM for crediting 'suppressed demand' for energy services as a result of energy poverty and lack of energy infrastructure.

-The project has been designed on a 'per unit', and 'per technology' basis, enabling the methodology to be adapted to incorporate other RE and EE type housing projects

-This positions the project concept well for replication in the Western Cape and nationally, particularly given eligibility of 'programmatic CDM'

BUT:

- 1) Kuyasa's financing has yet to be finally secured
- 2) It is unlikely to be financed on a sustainable basis



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# Financing Kuyasa



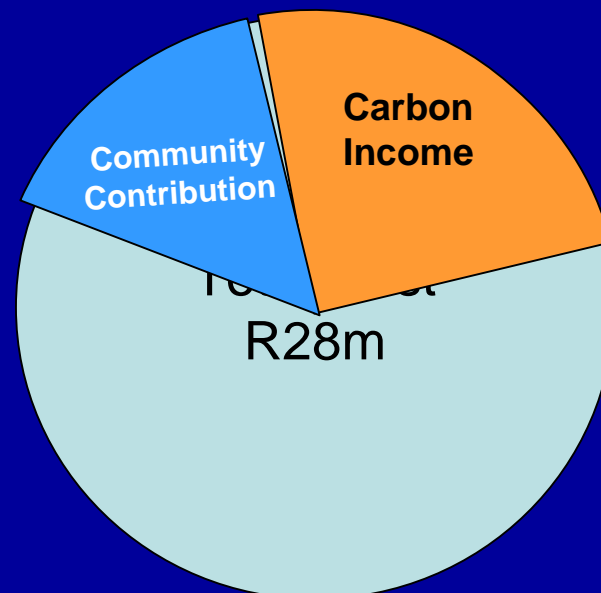
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## Outflows:

- Upfront Capital cost (bulk of costs!)
- Ongoing Maintenance Costs
- Project management costs
- Upfront CDM costs
- Ongoing CDM costs

## Current Anticipated Inflows:

- Carbon Income (based on 15 Euros)
- Community repayment scheme
- Grant financing (DEAT, Provincial Housing Dept) (bulk of inflows!)



# The Challenge:

- To develop a sustainable financial model for the replication of Kuyasa nationally
- REEEP funded project
- Financial stakeholder dialogue approach
- Aim to create a model and establish financial facilities, demonstrated in one pilot replication, which future project developers can use to secure funding



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## For Example

- DME subsidy / DSM financing
- DBSA loan to municipality, secured with carbon revenues as collateral
- Beneficiary deposit

- Upfront sale of CERs
- Municipality secures DBSA loan, and repays through charge to beneficiaries electricity bill
- Beneficiary 'sweat equity' to maintain and monitor



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# Progress to date

1. Key stakeholders identified and contacted, ongoing bilateral meetings
2. Options and model structure refined
3. Development of financial tool to consider options
4. Identification and progress regarding replication project



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# Progress to date

- Subsidy in some form is critical
- Project far more about finding a champion who understands how all three tiers of government can work together on this
- Cross-departmental, cross-budget



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# Progress to date



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Slower than anticipated (Kuyasa delays)



Key environment changes (SWH subsidy developments, infrastructural expenditure, programmatic CDM)

# Key issues

- Reliable cost and benefit data
- Model could be used to drive policy change (housing subsidy)
- Link to renewable/ EE targets at all three levels of government
- How could loans/ bonds be incorporated?
- Co-ordinate with TREC developments
- Programmatic CDM
- Government as project owner?
- Strong links with market creation for SWH
- Retrofits and greenfield projects



# In Conclusion...

- How do we make CDM work for public sector poverty alleviation RE / EE projects in SA?
- Currently undervalued benefits can be linked to specific grant and financing streams
- A holistic and cross-department, cross-budget way of thinking is required
- Critical components are starting to come together in SA



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Thank You

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