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General Information

South African Export Development Fund (SAEDF)

May 2009

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SA Export Development Fund (SAEDF)

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Trust

- History
- Closed-end fund - all returns reinvested
- Promoting SA exports

Sustainability division

- Import replacement
- Creating a market

Kuyasa CDM pilot

- Project was languishing
- Matched our vision
- Sustainable development model

On the horizon

- National Sustainable Housing Facility
 - Rolling out the Kuyasa model on a large-scale

Background: Location

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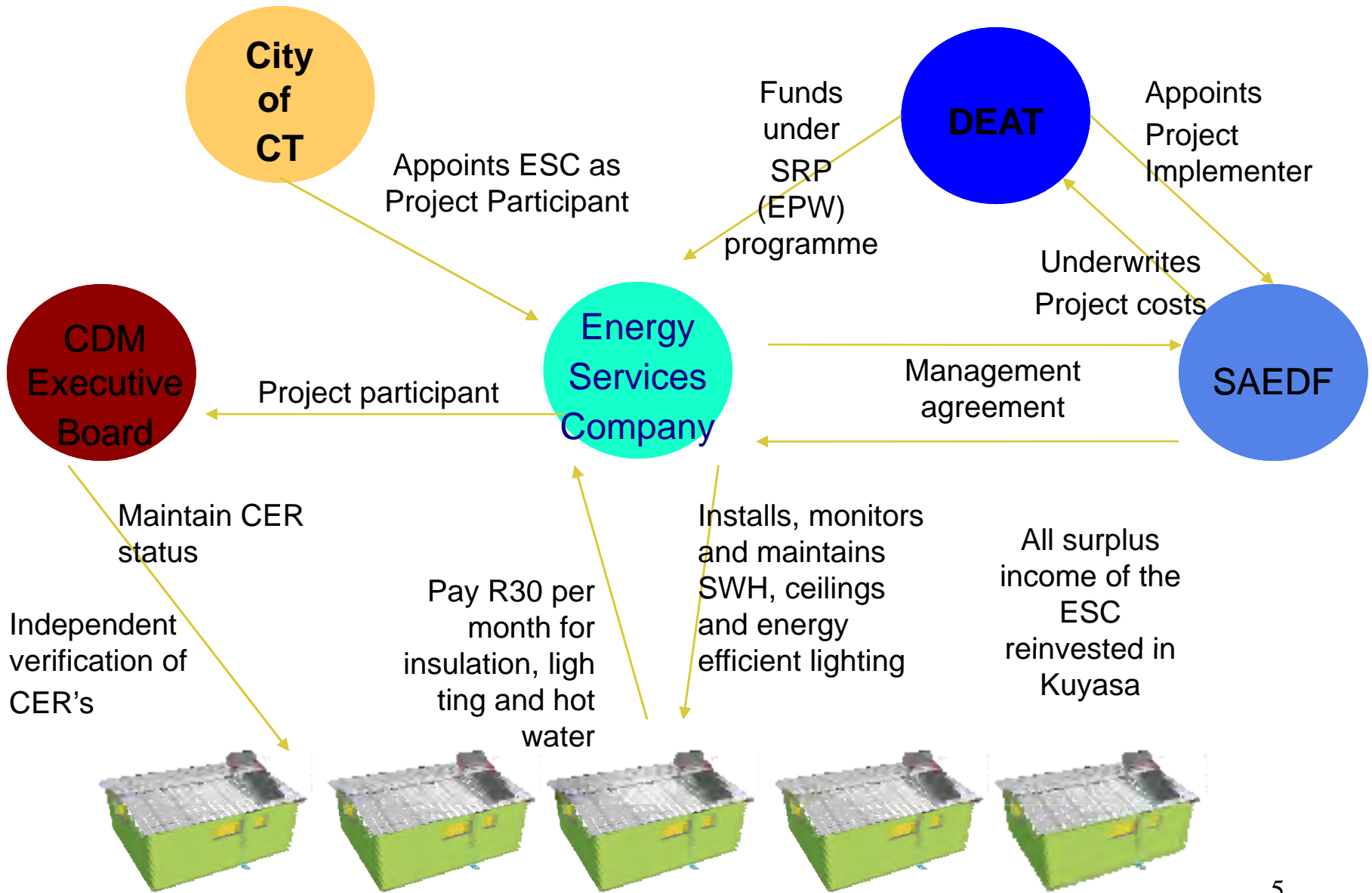
Location

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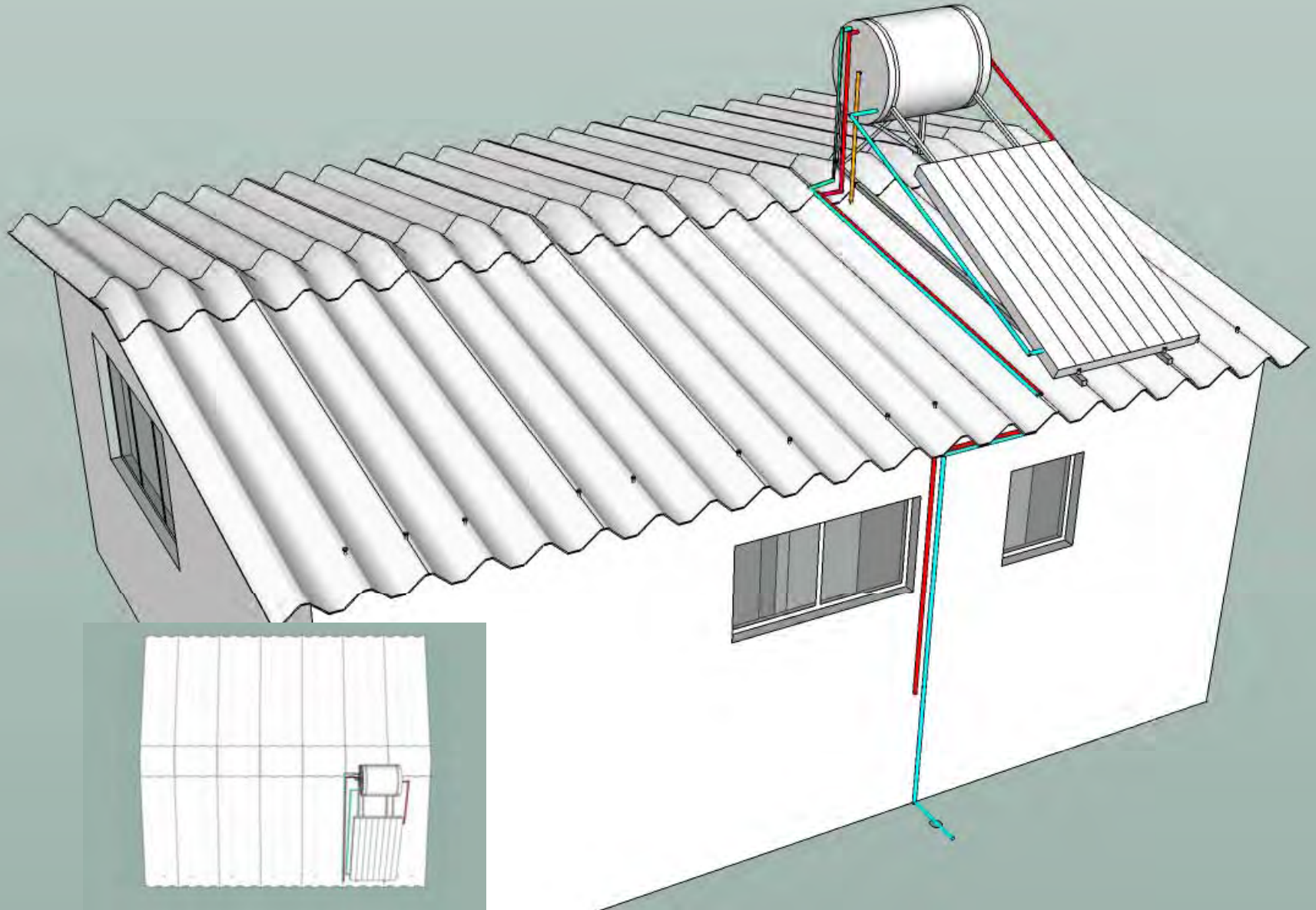
PROJECT PARTICIPANTS

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Project detail: Solar Water Heater

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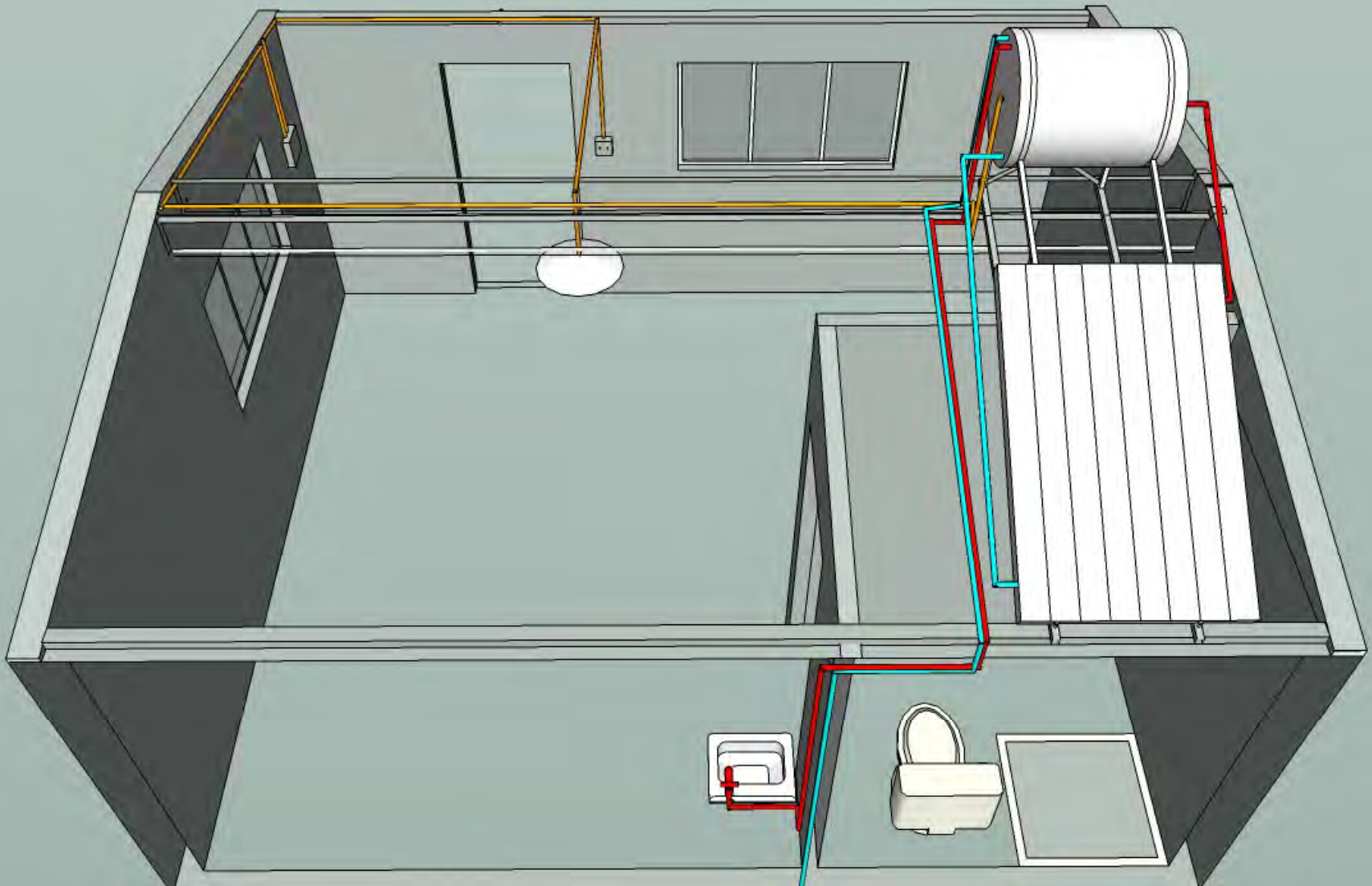
Solar Water Heater

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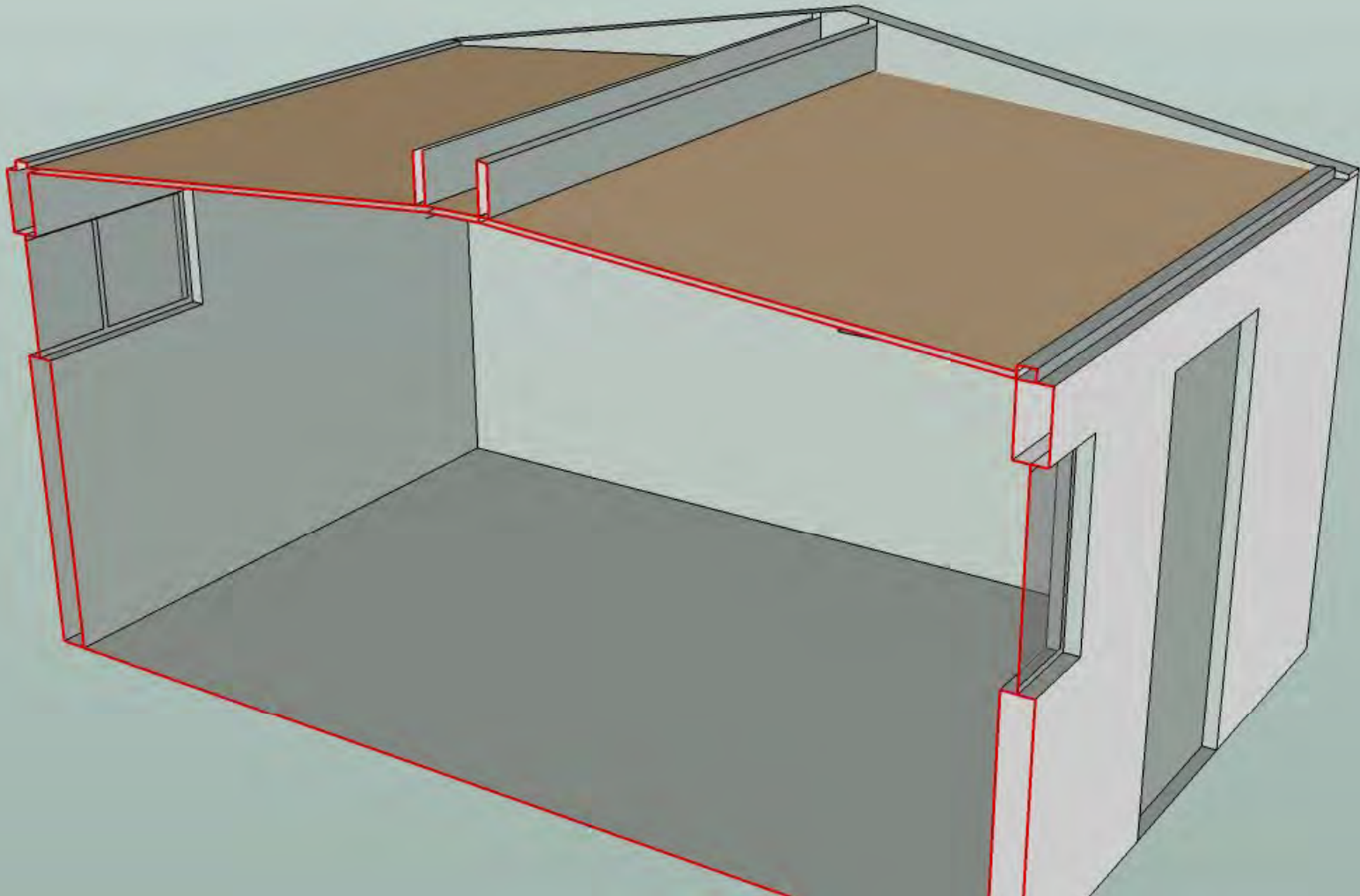
Project detail: Wiring and lights

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Project detail: Sectional view of ceiling installation

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Ceiling installation - Public Works

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Key aspects

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- 2,309 houses (minimum)
- Budget shortfall underwritten by SAEDF
- Kuyasa community empowerment / investment / jobs / ownership
- Sustainability and ongoing local contribution
 - Carbon finance, cost contribution and collection
- Complimentary initiatives
 - Greening
 - Support to community initiatives



High level Benefits

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Social

- Respiratory health burden reduced
- Provision of hot water – health / comfort
- Household cost savings due to energy efficiency
- Employment opportunities (EPWP)

Economic

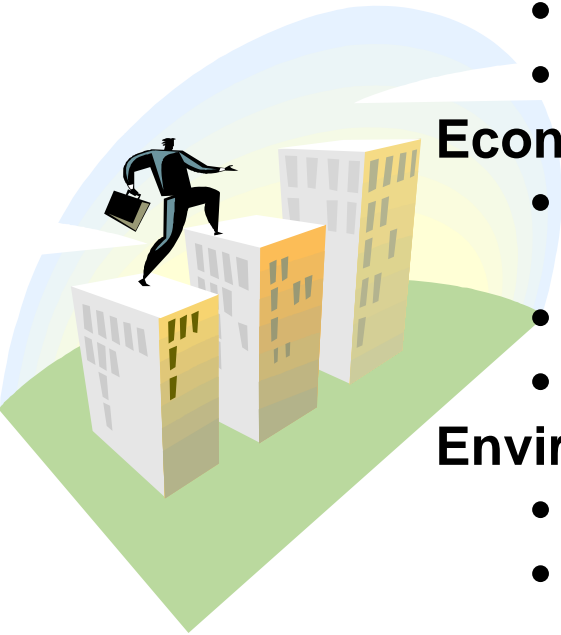
- Peak demand reduced – defers new installed capacity
- Leadership for low cost housing / energy industry
- Entrepreneurial opportunities

Environmental

- Largest project of its kind in Africa - Leadership
- City SWH target – 10% by 2010 (ie 80 000 houses) Project assists this target
- Implementing global commitments

Governance

- Local participation and decision-making



Health Benefits

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WHO definition of health

- Complete physical, mental and social well-being (not merely the absence of disease)
- Cycle of poverty and ill health (specifically mental health)
- Focus on primary prevention (jobs, environment, social)

Mental health worldwide

- In top 4 causes of disability
- 12% of global burden of disease

Impact

- MH worsens outcome of physical illness
- MH has high morbidity; disability adjusted life years

Khayelitsha

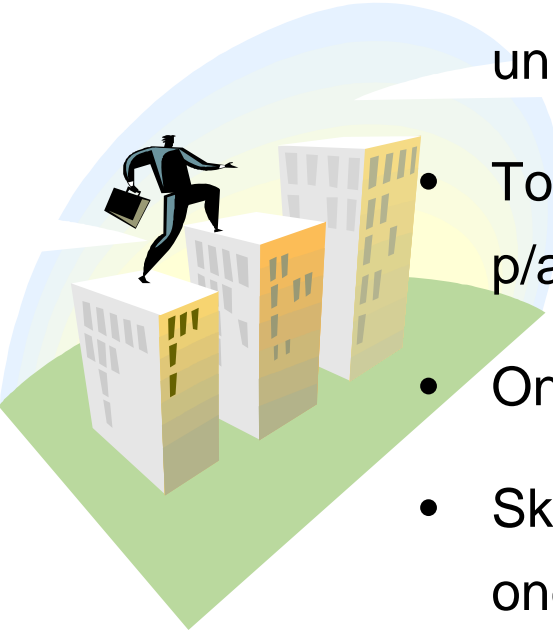
- Estimated prevalence of depression (60% amongst women of child bearing age).
- Highest levels occur in women who have high burden of care

Research on the cycle of poverty and mental disorder): Dr Crick Lund (Psych UCT)
Vikram Patel (London School of Hygiene)

Kuyasa project outputs

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- 2.82 Tons of Carbon Credits (1.2 for SWH) per unit/per annum
- Total tons of 6,511 p/a. Income of approx R 780,000 p/a (at Euro10/ton)
- Ongoing communal income of R831,240 p/a
- Skilled and semi-skilled jobs created for 75 persons - ongoing (permanent) maintenance jobs
- Business opportunities



Key Building blocks for sustainable finance

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Public works



Finance for large-scale roll-out

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Commercially viable to finance and roll out SWHs in low-cost housing on a large scale through a combination of:

- Hot water supply - monthly payment
 - Collection through pre-paid electricity
 - Demand side management finance
 - Eskom SWH subsidy
 - Carbon finance - programmatic CDM
 - Public works (labour and local skills development)
- Large scale roll-out of alternative energy possible
- Ensuring pro-poor service delivery and poverty alleviation;
 - Supplying community ownership, jobs and ongoing maintenance;
 - Providing excellent profile for stakeholders;
 - Supplying commercially viable development through public/private partnerships.



SAEDF Involvement

A person in silhouette is working on a solar water heater. The person is holding a long, thin rod or pipe. The solar water heater is a large, cylindrical tank mounted on a metal frame. The background is a bright, clear sky with a sun flare effect. The overall scene is set outdoors, likely on a rooftop or in an open area.

- Piloting of the NSHF
 - **As many key** financing and sustainability aspects in place as **possible**, following the **Kuyasa model** and **securing grant funding** if necessary
- Design, product information and supply
 - Technical experience and specification
 - Lowest cost / best quality / best performance
 - Practical experience and skills to operationalise a large scale SWH & insulation installation, including community consultation, labour selection, training and maintenance



Danida



G:ENESIS

THE NATIONAL SUSTAINABLE HOUSING FACILITY: climate proofing subsidised housing in South Africa



Source: Kuyasa CDM Project, Photographer: Carl Wesselink



2002

- The Kuyasa CDM Project (SSN)

2003

- How to finance a Kuyasa scale-up? (REEEP / SSN)

2004

- The establishment of the Drafting Group (REEEP / SSN)

2005

- Kuyasa implementation and SWH programmatic methodology (EDC)

2006

- NSHF Business Plan (Danida / Genesis)

2007

- Thermal efficiency methodology and CDM PoA (DBSA / SSN)

2008

- Government endorsement project (Danida / Genesis)

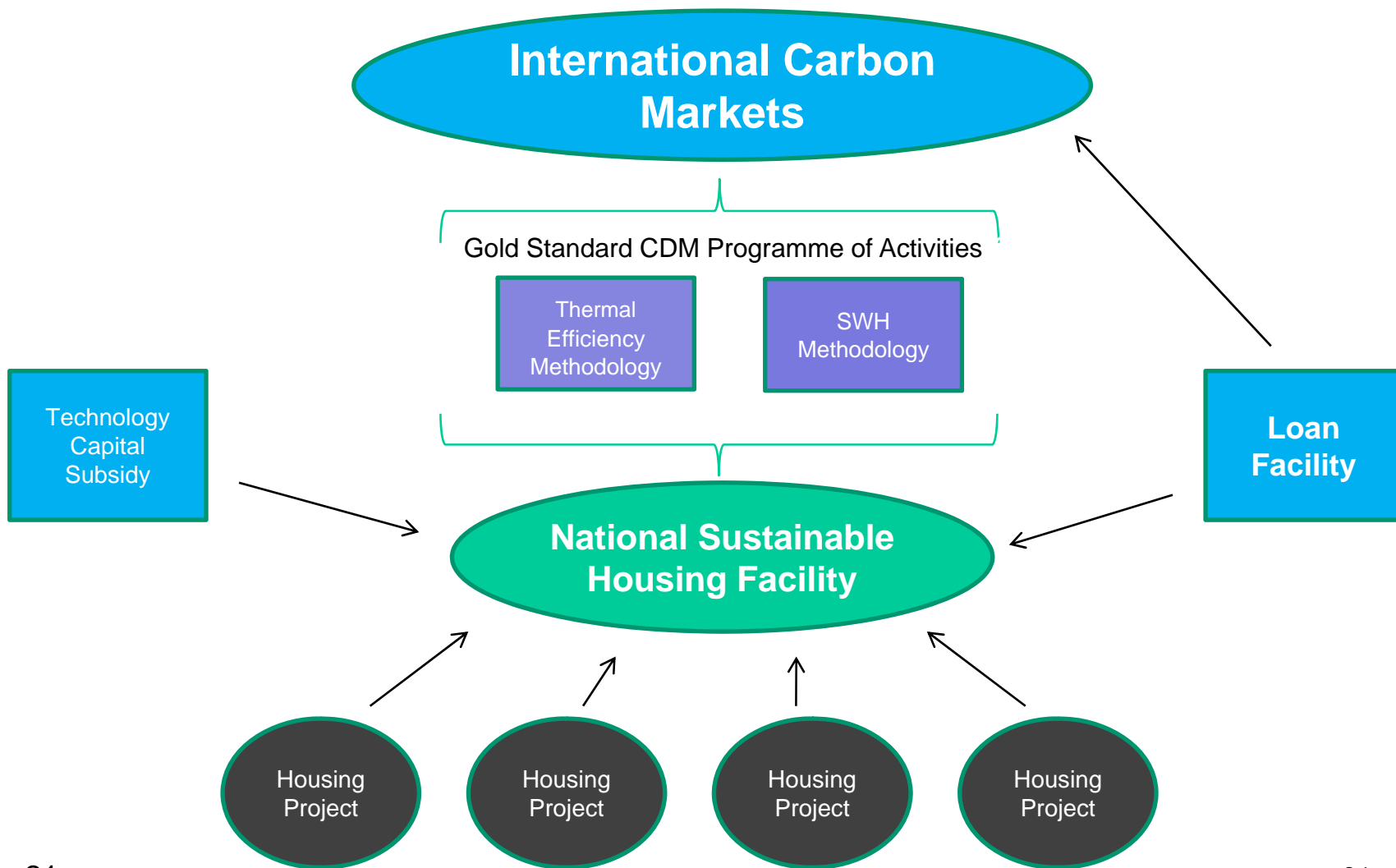
2009

- NSHF institutional criteria (SSN / Genesis)

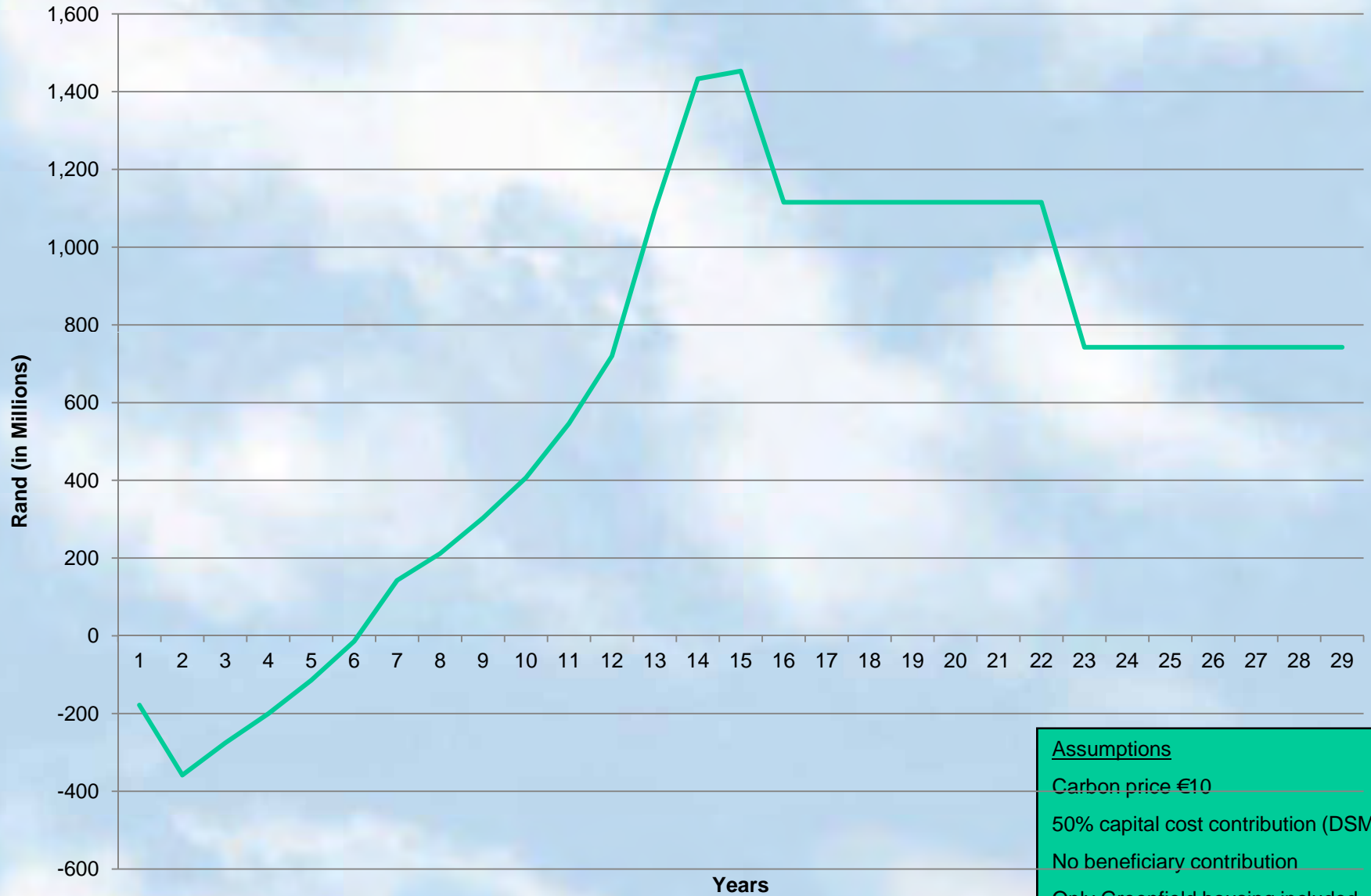
VISION: A clearing house which enables and incentivises access to financing for clean energy services in all low income housing in South Africa

MISSION: To establish a Facility which 1) administers a CDM programme, and 2) leverages and manages access to the additional upfront financing required for the incremental capital costs of sustainable energy interventions in low income housing





A Low Income Housing Programme for South Africa



Assumptions

- Carbon price €10
- 50% capital cost contribution (DSM?)
- No beneficiary contribution
- Only Greenfield housing included
- No financing

NSHF: The Investment Case

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- Upfront development of the carbon asset: **+/- R6m** (with significant international interest and funding opportunities)
- Ongoing monitoring and transaction costs are negligible compared to carbon revenues
- Carbon revenues range between **R1200 to R3000 per house per annum** (Dependent on assumed carbon price, €10-25)
- Energy savings in Kuyasa reveal up to **R300 per month per house** in winter, these have not been included in the model
- Health, employment, poverty alleviation, LTMS contribution, avoided new energy generation build - **co-benefits not yet quantified.**

Suppressed Demand

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