

Nelson Mandela Bay Metropolitan Municipality
Solar Water Heaters for Low Cost Housing
Pilot Project



nelson mandela bay
M U N I C I P A L I T Y
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W O R K I N G T O G E T H E R F O R U B U N T U

Introduction

- NMBM Electricity and Energy Directorate (E&E) decided that Solar Water Heating should not only consider the upper socio-economic sector but should be across all socio-economic sectors in the metro.
- Forms part of the Nelson Mandela Bay Municipality (NMBM) renewable energy projects and the overall contribution to savings required by the ESKOM Power Conservation Phase.
- Tender advertised, evaluated and adjudicated for the supply, delivery and installation of 1000 low-pressure solar water heating systems.
- This tender will be seen as a pilot project. First time that a mass solar heater rollout is done in the metro.



Objectives

- Free source of hot water to households - improve quality of life.
- Reduce metro's electrical load - increase energy provided to households.
- Create environmentally sensitive and sustainable communities. Project will address financial and economical models required to make such a project sustainable within communities.
- Reduce of CO2 emissions.
- Pursue carbon revenue.
- Include all stakeholders in Pilot Project to develop an installation model for mass rollout.
- Provide a detailed proposal to national government, which will positively influence a decision to create enabling legislation for a national rollout.



Strategy

- Water heating biggest user of energy in a household; interventions must thus be made to minimize this usage.
- Tender advertised in June 2008 for “Supply, delivery and installation of 1000 low-pressure solar water heating systems”.



Strategy Continues...

- NB!! Discussions between the community, via Ward Councilor and community leaders - prior to project implementation.
- Project introduced to whole community before any work commenced at general meeting.
- A full social economic assessment required to determine the social impact of hot water on the relevant households.
- Social survey provide useful info on households for installations
 - Contact details
 - Water connections
 - House constructions
- Recommends that survey of area + households be completed before any installations.





Strategy cont.....

- Universities, such as NMMU and UCT, are taking part in certain investigations, as this will provide accreditation to the assessment. All universities, NGOs, departments or any other relevant stakeholders are invited to take part in the pilot project.
- Local labour is used where possible in order to empower the community through the project.
- Project includes a one-year maintenance program for all of the installed systems not to burden households.
- An approved housing site had to be found for the installations.





Current status of project

- 300 units installed.
- 1000 units installed by July 2009.
- First baseline study fieldwork completed.
- Data being captured.
- Community workshops facilitated by SEA.





Lessons learned from Workshops

- Community must understand:
 - Technology
 - Maintenance
- Importance of CLOs
 - Education
 - Contact between contractor and community
- Implementing body
- Community to take ownership



End