

How to implement renewable energy and energy efficiency options

Support for South African local government



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- ☀ solar water heaters
- ☀ energy efficient lighting
- ☀ energy efficient building
- ☀ public transport
- ☀ waste to energy
- ☀ photovoltaics
- ☀ power purchase agreements
- ☀ concentrated solar power
- ☀ wind power

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This handbook has been developed with a wide range of city stakeholders, however Sustainable Energy Africa is responsible for the views expressed and any errors made in this document.

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Using this manual

This Manual has been designed for use by city officials and planners. It is a practical handbook, which identifies easy to achieve energy interventions that will save money (for cities, businesses and households), promote local economic development and enhance the sustainable profile of a city. This manual is specifically aimed as a support tool to achieve the implementation of key interventions within South African municipalities.

These key interventions have been identified as important and sensible starting points for cities. They are tackled as separate chapters in the manual:

- ☀ Solar Water Heaters
- ☀ Energy Efficient Lighting
- ☀ Energy Efficient Building
- ☀ Sustainable Transport Planning
- ☀ Waste to energy with a primary focus on Landfill Gas

In each chapter, the manual will:

- ☀ Make the case (broadly) for the intervention.
- ☀ Explore the potential for mass rollout of the intervention to determine
 - The energy and carbon savings resulting from the intervention
 - The financial impact of the intervention
 - Poverty alleviation through the intervention if applicable
- ☀ Identify key barriers to mass rollout of the intervention, and highlight current efforts to resolve these
- ☀ Provide practical steps towards implementing city rollout of the intervention.

In addition to this the following interventions will be elaborated on:

- ☀ Solar Photovoltaics
- ☀ Green Power Purchase
- ☀ Concentrated Solar Power
- ☀ Wind

These serve more as information and feasibility updates than implementation approaches.

Unless otherwise referenced, all data and graphs in this manual are sourced from Sustainable Energy Africa's publications and city models.