



USAID
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SOUTH AFRICA

GLOBAL CLIMATE CHANGE

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The successful programs of USAID and its implementing partners in energy efficiency and renewable energy production have decreased the amount of carbon being released into the atmosphere. Training and capacity-building activities will ensure the projects' sustainability and expand future opportunities for South Africa to reduce its carbon footprint.

BACKGROUND

South Africa is a middle-income country and an emerging market with an abundant supply of natural resources. Growth has been robust since 2004, as South Africa has reaped the benefits of macroeconomic stability and a global commodities boom.¹ However, according to a report prepared by the World Resources Institute, South Africa is the 11th largest emitter of electricity and heat-based carbon dioxide (CO₂) worldwide.² In addition, at the end of 2007, South Africa began to experience an electricity crisis because state power supplier Eskom suffered supply problems due to aged plants, necessitating “load-shedding” cuts to residents and businesses in the major cities.³ To address these issues, the government is pursuing several programs to save energy, while also reducing the growth in greenhouse gas (GHG) emissions.

SECTOR-SPECIFIC CLIMATE CHANGE ACTIVITIES

USAID is working with the South African government to:

- Support the design, implementation, and evaluation of programs linked to climate change;
- Provide training for decision-makers and stakeholders;
- Disseminate information to local officials; and
- Support pilot activities using renewable energy technologies.

EMISSIONS REDUCTIONS THROUGH INCREASED ENERGY EFFICIENCY

USAID reached a partnership agreement with two major players in the energy efficiency sector: the South African Government's (SAG) National Energy Efficiency Agency (NEEA) and the City of Johannesburg's Johannesburg Roads Agency (JRA). Through this agreement, a project is being implemented to replace traffic lights with energy-saving light-emitting diode (LED) bulbs at 2,000 intersections nationwide. A pilot project to install solar powered backup systems in key intersections of the City of Johannesburg is also underway. The project is expected to leverage \$8.76 million, and will result in energy savings of 18 GWh per year when fully implemented. The activities under the project will include: 1) replacement of all traffic signals in Johannesburg; 2) installation of solar-

1 CIA Factbook: <https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html>

2 Baumart, Kevin, Timothy Herzog and Jonathan Pershing, “Climate Data: A Sectoral Perspective,” August 2005.

3 CIA Factbook: <https://www.cia.gov/library/publications/the-world-factbook/geos/sf.html>

PARTNERS

USAID's partners in climate change activities in South Africa include:

- Ecoserv
- The Alliance to Save Energy (ASE)
- The Johannesburg Roads Agency (JRA)
- The Louis Berger Group, Inc (LBG)
- The National Energy Efficiency Agency (NEEA)
- The SAG's Department of Environmental Affairs and Tourism (DEAT)
- The South African Cities Network (SACN)
- The South African Government (SAG)'s Department of Provincial and Local Government (**dpig**)

Because partners change as new activities arise, this list of partners is not comprehensive.

powered traffic signals at high volume traffic intersections, and;
3) installation of solar-powered traffic signals for pedestrian crossings at primary and secondary schools. USAID is providing project management support to both NEEA and JRA to advance the development, planning and implementation of the project.

SOLID WASTE MANAGEMENT

USAID developed an alliance with the South African Government's Department of Provincial and Local Government (**dpig**) and the private sector Business Trust, a partnership of companies across industries and sectors in South Africa, to develop municipal solid waste projects in the municipalities of Mbombela, Bushbuckridge, Umkomazi, Emfuleni, and Thulamela. Technical assistance and training was provided to the **dpig** on their domestic waste collection program, which extracts gas and converts it to energy, thereby reducing greenhouse gases while also supplying much needed energy from renewable resources.

CAPACITY BUILDING AND TRAINING

During 2007, 69 national, municipal and private sector representatives received USG-supported training in environmental law enforcement and public participation as well as cleaner production policies, strategies and techniques. Training modules were developed that focus on solid waste management, alternative technologies, and landfill gas-capture and re-use. In addition, the SAG's Department of Environmental Affairs and Tourism (DEAT) requested and received specific training support from USAID in waste recycling for their officials. Technical assistance was provided by USAID to the Msunduzi local municipality for their landfill gas-to-energy project which culminated in the signing of a negotiated-landfill gas lease agreement between the municipality and a private company, Ener-G Systems, governing the design, supply, installation, commissioning, construction, operation, and maintenance of a landfill gas utilization and destruction facility.

For more information, visit:
<http://www.usaid.gov/missions/sa/>