

Renewable energy

- SAGEN provides technical expertise for wind and solar energy and gives regulatory advice for the development of renewable energy in South Africa
- SAGEN advises on the integration of renewable energy into national and municipal electricity grids
- SAGEN contributes to the market development for rooftop photovoltaic and biogas technology and supports relevant institutions to elaborate the necessary framework for these technologies
- SAGEN develops skills and capabilities for renewable energy of people in South African organisations
- SAGEN provides information and practical support to national and provincial governments, and to private sector stakeholders
- SAGEN helps municipalities to integrate renewables into their energy supply



From 2011 to 2014, for example, in partnership with the Department of Energy, Eskom and Nersa, the National Energy Regulator of South Africa, GIZ-SAGEN provided advice on renewable energy grid code specifications and supported the development of grid code compliance testing procedures. 30 independent power producers contributed to the grid code amendment during this process.

Energy

Manufacturer
Type No.

More efficient



Less efficient

Energy consumption kWh/year
(Based on standard test results for 24h)

310

Energy efficiency

- SAGEN is developing institutional capacity to promote energy efficiency
- SAGEN supports the Department of Energy to manage and monitor the Municipal Energy Efficiency Programme
- SAGEN builds capacity in municipalities to maximise their participation in the Municipal Energy Efficiency Programme.
- SAGEN implements the roll-out of energy efficient street light retrofitting measures in selected municipalities on the basis of a co-financing agreement with the Swiss SECO (State Secretariat for Economic Affairs)
- SAGEN supports the Department of Energy with the implementation of the National Solar Water Heater Programme and aims to improve its sustainability

From 2011 to 2014, for example, SAGEN partnered with the Green Building Council of South Africa for the project "My Green Home". The Ngewana family was selected to illustrate the potential of reduced energy consumption in private households. After just six months, the Ngewana family managed to reduce their electricity consumptions by 53 percent, their water consumption by 44 percent and the waste by 81 percent.

SAGEN

SOUTH AFRICAN-GERMAN
ENERGY PROGRAMME



energy
Department:
Energy
REPUBLIC OF SOUTH AFRICA

What is SAGEN?

SAGEN is the South African-German Energy Programme.

SAGEN works with South African institutions and the private industry in the energy sector to improve conditions for investment in renewable energy and energy efficiency in SA, leading to security of energy supply, new skilled jobs and protection of the environment.

SAGEN provides international knowledge, expertise and experience to create an environment in which renewable energy and energy efficiency can flourish. SAGEN is funded by the German government as part of the bilateral cooperation between South Africa and Germany.

SAGEN is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), an organisation which helps the German government to achieve its objectives in the field of international cooperation for sustainable development.

Energy in South Africa

South Africa has significant potential to save money through energy efficiency and to increase the contribution of renewable power sources to its energy mix.

The country is traditionally reliant on coal and is one of the world's biggest emitters of CO₂. Against the background of current energy challenges as well as rising electricity prices South Africa urgently needs to decrease its energy use and diversify energy supplies by aping the huge potential of renewable energy.

The South African government recognizes the country's renewable energy potential and is committed to using renewables to increase reliability of power supply, develop skills, create jobs, and reduce CO₂ emissions.

By 2030, South Africa will have to develop about 40 000 megawatt of new generation capacity to meet demand requirements and, according to the revised National Energy Efficiency Strategy of 2012, will have to reduce energy intensity by 12 percent by 2015.

How SAGEN works

SAGEN is focused on improving the implementation of policies and strategies to stimulate investments in renewable energy and energy efficiency.

SAGEN provides practical training, policy advice and technical support to government and businesses, combined with capacity building, research reports, and pilot projects. SAGEN places experts in partner organisations and provides short-term consulting assignments.

The first phase of SAGEN ran from 2011 to 2014, while the second phase is running from 2015 to 2017.

Key Achievements

- SAGEN supported various aspects of the national tender programme through which 3 900 megawatt of renewable energy were awarded to private investors.
- In total, 205 South African stakeholders participated in a series of workshops and study tours to Germany organized by SAGEN.
- The South African Renewable Energy Training Centre (SARETEC) is now operational on its own premises, funded by the South African government.
- Innovative energy efficiency measures supported by SAGEN contributed to savings of at least 115 000 megawatt hours annually.

SAGEN partners

SAGEN's primary implementation partner is the Department of Energy, further close partners include the power utility Eskom, the South African Local Government Association, provincial and local governments and higher education and training organisations.

SAGEN helps these institutions to design and implement policies and programmes to promote increased energy efficiency and deploy renewable energy throughout the South African economy.

SAGEN also collaborates with:

- **Industry associations:** South African Renewable Energy Council, South African Photovoltaic Industry Association, South African Biogas Industry Association.
- **Financing institutions:** Development Bank of South Africa, Industrial Development Corporation
- **Universities and research institutions:** Cape Peninsula University of Technology, South African National Energy Development Institute, Renewable Energy Centre for Research and Development.

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