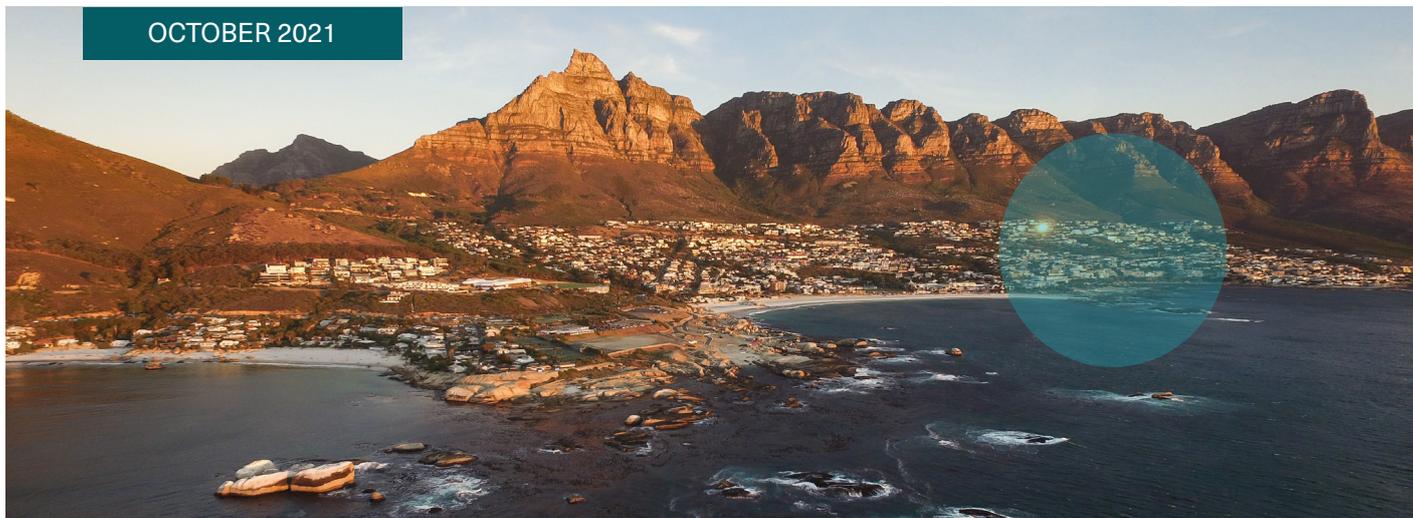




OCTOBER 2021



SOUTH AFRICA AND DENMARK COOPERATE ON DEVELOPING A SUSTAINABLE, JUST AND SECURE ENERGY SUPPLY IN SOUTH AFRICA

Through close cooperation, South Africa and Denmark work to create a sustainable and just energy supply in South Africa. This energy journey draws on Danish experiences.

South Africa is Africa's second-largest economy after Nigeria and the country has almost 58 million inhabitants. South Africa is characterized by population and economic growth but the current energy system is a limiting factor to a lot of people and continued growth. In addition, according to the World Resource Institute's Climate Data Explorer, South Africa is the world's 16th largest emitter of CO₂. Greenhouse gas emissions per capita are almost four times the world average. The South African government recognizes this and has laid out a plan for how they will bring about a socially just energy sector by 2030 which will provide stable energy at competitive prices. Access to clean and environmentally sustainable energy at an affordable price is one of the goals of the strategy. The implementation of the strategy requires large investments in the energy system and a conversion from black to green with the inclusion of large amounts of renewable energy sources.

In the Paris Agreement, South Africa has committed to letting greenhouse gas emissions peak between 2020-2025 at a level between 398 and 614 Mt CO₂ equivalents. Whether South Africa can achieve this result is entirely dependent on access to financial capital, technological development, and capacity building.

The Danish energy model is based on 40 years of experi-

ence in restructuring the energy system with ambitious political objectives for renewable energy. The Danish transition shows that it is possible to combine economic growth with a substantial reduction in CO₂ emissions. These concrete experiences will be utilised in the cooperation in order for South Africa to achieve a cost-effective, flexible, well-functioning energy system with security of supply.

Cooperation on political objectives and technical requirements

A basic precondition for growth, employment and equal opportunities is the approach to safe and clean energy. Therefore, the Danish Energy Agency cooperates with the Department of Mineral Resources and Energy (DMRE), the Independent Power Producers Office (IPPO) and Eskom on primarily three areas:

1. Capacity development in energy planning and wind resource mapping
2. Development of a liberalized energy market, grid planning and stability with a high proportion of renewable energy sources
3. Integration of renewable energy sources and grid codes



The purpose of the cooperation is to capacity build further within these areas based on our partners specific needs. The Danish Energy Agency can contribute to more effective implementation of the South African political objectives and help to ensure that the technical requirements are in place.

In close cooperation, DMRE, IPPO, and the Danish Energy Agency will further develop competencies within energy planning and wind resource mapping to create a stronger interplay between the institutions and enable more effective implementation of South African energy policy. These measures will make it more likely that South Africa successfully achieve its climate objectives as defined in the Paris Agreement as well as a just transition. Furthermore, the Danish Energy Agency and IPPO cooperate to streamline their tender program of renewable energy sources with e.g. digital solutions and tendering planning to meet political and social objectives.

Management tools and liberalization of the electricity market

Together, Eskom and the Danish Energy Agency will contribute to solving some of the challenges facing the South African energy system. This applies strategy, planning and technology. On a concrete level, this can e.g. be realised by creating a knowledge platform for strategic management information based on Danish experiences with the development of a liberalized electricity market. Furthermore, the programme also looks at the possibility is to ensure a more effective integration of variable renewable energy sources. The cooperation must also contribute to better capacity within energy forecasts, operational planning and re-prioritization of capacities, updated grid rules and requirements for a liberalized market for additional services.

FACTS

- The Danish-South African energy cooperation was initiated in 2011 with the aim of fulfilling South Africa's climate goal set out in the Paris Agreement.
- The cooperation focuses on capacity building in long-term energy planning, liberalization of the electricity market and integration of renewable energy.
- Key partners include the Danish transmission system operator Energinet, Department of Mineral Resources and Energy (DMRE), Independent Power Producers Office (IPPO) and Eskom.
- The energy cooperation is financed by the Ministry of Foreign Affairs through the Danish Climate Envelope and the current program runs from November 2020 to October 2025.

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