

## The Republic of South Africa

### Positions for the UN Environment Programme Committee of Permanent Representatives

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#### I. Expanding Green Energy Infrastructure in Developing States

The Republic of South Africa recognizes the importance of expanding green energy infrastructure to developing Member States in order to provide clean energy that mutually supports economic growth and responsible use of the environment. South Africa has been gratified to see that as the cost of clean energy technology has continued to fall, many countries have become interested. Member States such as Australia, Sweden, and Mexico ramped up their investment in clean energy projects in 2017, with each increasing their investments by anywhere from \$3.7 to \$8.5 billion dollars. Even with this growth, the International Energy Agency (IEA) has calculated that by 2030, nearly one billion people will still lack access to electricity, which is a necessary precondition for development. Expanding green energy infrastructure is crucial to achieving Sustainable Development Goal (SDG) 7 for affordable and clean energy, and SDG 13 for climate action. Former UN Secretary General Ban Ki-moon described energy as “the golden thread that connects economic growth, social equity, and environmental sustainability”. South Africa echoes Secretary General Ki-moon in emphasizing the importance of energy infrastructure, and supports the 2011 UN’s *Sustainable Energy for All* initiative.

Unfortunately, progress towards green energy infrastructure in developing states has been uneven. Substantial energy inequality remains and disproportionately burdens rural women and girls. Conventional energy, such as cooking fires and kerosene lamps lead to medical complications such as heart disease, burns, and respiratory difficulties. According to the World Health Organization, “4.3 million deaths were attributed to household air pollution in 2012,” which was more than malaria, tuberculosis, and HIV/AIDS combined. The lack of sustainable energy also impacts the ability to provide effective health services in developing states since medical staff must often resort to whatever poor quality lighting is available in order to treat patients. South Africa would not only like to see energy access expanded to these areas, but would like to see the energy options consist primarily of sustainable sources.

South Africa recognizes that it has room for improvement on this issue. The South African Department of Energy calculates that approximately “77% of [the state’s] electricity is generated by coal.” To help decrease the high levels of greenhouse emissions in Africa, South Africa has taken the initiative to implement and support green energy infrastructure. One example is the Renewable Energy Independent Power Producer Program (REIPPP) which invests billions of dollars into the development of wind farms. As of August 2018, there are 25 wind farms (of which 22 are fully operational), which includes over 960 wind turbines, producing more than 2000 MW of energy. In addition to the 25 current wind farms, the REIPPP has made plans for 34 more to be added to South Africa’s expanding green energy infrastructure. South Africa has also been active in encouraging alternative energy sources such as solar and hydroelectric. South Africa has 33 solar photovoltaic plants, along with 3 Concentrated Solar Power Plants, which are expected to produce a cumulative sum of 1770 MW of power. Further, there are currently two hydroelectric power facilities that produce around 14 MW of power, and according to the Global Energy Council, this number is expected to increase by more than 27% in upcoming years. By increasing its renewable energy budget from \$740 million to over \$3.8 billion, South Africa has committed to positively impacting the global environment while also creating thousands of jobs to benefit the economy.

Member States such as Germany, where greenhouse gas emissions have already declined 27% due to shifts towards renewable energy sources, have demonstrated that substantial progress in creating green energy solutions is possible. While it would be challenging for developing Member States to follow the German example without financial support, South Africa finds such examples encouraging. South Africa believes there are several steps that UNEP and Member States can take to further encourage such growth. First, South Africa would encourage Member States to consider adopting domestic taxes on carbon emitting forms of energy production, in order to incentivize the use of clean energy sources. Second, funds such as the World Bank should prioritize low-interest loans to developing Member States for the purposes of economically-viable green energy projects. Third, better regional cooperation and integration of energy networks would allow countries to overcome some of the time and weather restrictions of green energy by diversifying the sources available to them. Steps such as these would allow developing Member States to participate in the green revolution while also helping the world as a whole limit carbon emissions.

## II. Promoting Global Collaboration in Combating Rising Sea Levels Due to Climate Change

The Republic of South Africa recognizes the importance of promoting global collaboration in combating rising sea levels due to climate change. Rising sea levels driven by these broader climate shifts remain underestimated by the global community. Between 1901 and 2010, sea levels rose approximately 19 cm due to the gradual melting of ice and snow. Furthermore, it is estimated that by 2065, sea levels will rise an additional 24-30 cm. According to the Intergovernmental Panel on Climate Change (IPCC), global temperature increased by 0.85 degrees Celsius from 1880 to 2012. By the year 2065, it is predicted to rise by 1 to 2 degrees Celsius. These predictions on sea level rise and increased temperatures could prove catastrophic for many Member States. Some estimates place future damage from storms, combined with rising sea levels, at as much as \$1 trillion annually. Africa is particularly vulnerable to climate change due to lack of infrastructure, poor disaster management, and general under development, which could compromise water supplies and negatively impact agricultural production. South Africa is committed to taking urgent action in combating rising sea levels as it is an integral part of SDG 13 to combat climate change.

South Africa has been an active member of the global community in regards to climate change over the past 30 years. In 2002, South Africa joined 191 countries by adopting the Kyoto Protocol. South Africa also joined the United Nations Framework Convention on Climate Change, and more recently, the Paris Agreement. South Africa was gratified to be recognized for its efforts by former Secretary General Kofi Annan who said, "Countries like Ethiopia, Kenya, Rwanda and South Africa are emerging as front-runners in the global transition to low carbon energy." As part of its commitments under the Paris Agreement, South Africa is planning on introducing a carbon tax to cover fossil fuel combustion emissions, emissions from coal mining, and industrial emissions. However, to move forward with greenhouse emission reductions South Africa will continue to seek support from industrialized nations to help it respond to the threat of rising sea levels that could flood coastal cities such as Cape Town, Durban, Port Elizabeth, East London, and Paarl by the year 2050.

South Africa is also currently involved in several other programs to monitor and limit the effects of climate change. Member States on the continent take part in the African Ministerial Conference on the Environment, which discusses upcoming topics that may appear at the United Nations Environment Assembly, and works to further innovative ideas on climate change issues. From this meeting, programs such as the African Environment Partnership Platform (AEPP) which works hand in hand with the New Partnership for Africa's Development (NEPAD) have sprouted. Both work to create a more environmentally-friendly South Africa, with sustainable resources. Through NEPAD, programs such as the Climate Change Fund which works with the German Government, has been created to help regulate climate change effects, and to aid other African Union (AU) Member States towards this goal.

South Africa proposes a multi-pronged approach to combat sea level rise. South Africa recognizes that the Netherlands is the leading global expert on learning to live with the threat of flooding. Innovative programs such as using lakes, garages, parks, and plazas as potential reservoirs, and the construction of vast floodgates, are an example to the international community. Dutch consultants have already advised Bangladeshi authorities about "emergency shelters and evacuation routes," which helped reduced the number of deaths in recent floods. Such exchange of information could be beneficial to Member States with similar challenges. Therefore, South Africa proposes a biennial conference to share innovative new practices in combating climate change, to be titled the Global Action for Rising Seas Summit (GARRS), with the first summit being hosted during summer 2019 in Rotterdam, Netherlands. Second, South Africa would like to see further work being done to spread the use of oyster beds as a tool to combat sea level rise. Based on emerging scientific work, oyster reefs may be able to grow quickly enough to help provide protection against sea level rise. Funding to seed such reefs should be made available to developing Member States out of the UN General Fund. Finally, South Africa proposes a series of resilient infrastructure projects to benefit coastal communities that are the most vulnerable to rising sea levels. C40 predicts that as many as "800 million people living in 570 coastal cities could be affected by rising sea levels by 2050." Because the conditions of Member States vary, such projects should seek locally-viable solutions such as the rehabilitation of mangroves, the integration of rain gardens, or the use of Topmix Permeable - a fast draining concrete pavement solution. These projects could be funded through submission of proposals to the Green Climate Fund (GCF). In particular, South Africa would encourage proposals that involve regional cooperation, since coast lines do not stop at international borders. South Africa hopes that through such programs the world can be better prepared for the effects of sea level rise.