I. Introduction

South Africa's indigenous energy resource base is dominated by coal, which is used in generation of around 90% of the electricity produced in South Africa. In 2005, the Government of South Africa passed the National Environmental Management Air Quality Act (NEMAQA), which defines the pollutant emissions limits for power plants. The Project is designed to support South Africa’s commitment to reducing environmental pollution in the energy sector.

II. Project Description

The objective of the Project is to achieve sulphur dioxide (SO₂) emission reduction of Medupi coal-fired power plant from 3,500 mg/m³ to below 500mg/m³ from 2026 onwards. The contents of the Project include the design and construction of six flue gas desulphurization units along with ancillary facilities.

III. Environmental and Social Aspects

The positive impacts of the Project include reduction of SO₂ concentration in Waterberg municipal district of Limpopo Province, contributing to: i) decreased adverse health
impacts, particularly for respiratory health of the residents of the area; ii) reduced negative environmental impact caused by acid deposition.

The Project has been classified as Category “A”, in accordance with NDB Environment and Social Framework (ESF). The negative environmental and social impacts can be mitigated by adherence to established environmental and social practices and requirements of the country system, as well as additional social management plans that have been developed for the Project. The negative impacts mainly pertain to i) risks related to labor strikes; ii) social tensions with communities related to expectations of employment; iii) compromised road safety resulting in high road accident rate.

IV. Financials

The total cost of the Project is estimated to be USD 2,750 million. The NDB will finance USD 476 million, accounting for 17% of the total cost. The remaining balance will be financed by other co-financiers.

V. Implementation

The Project is planned to be implemented over 7 years. Eskom will be the Project Implementation Agency.