

ANNEXURE 2: ESKOM'S PROPOSED POLLUTION PREVENTION PLAN

Templates for preparation of the plan

The following declaration and Table 1 and 2 must form part of the pollution prevention plan.

Name of Company: Eskom Holdings SOC Ltd (Registration number 2002/015527/30)

Declaration of accuracy of information provided:

I, [Redacted], declare that the information provided in this report is in all respects factually true and correct to the best of my knowledge and as at the date of signature.


Contact details:

Telephone: [Redacted]

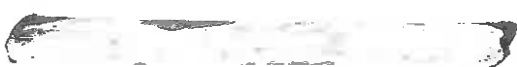
Physical address: Megawatt Park, 1 Maxwell Drive, Sunninghill, Sandton

Email: [Redacted]

Signed at Sunninghill on this 21st day of June 2018



Signature



Climate Change and Sustainable Development Department _____

Capacity of Signatory

The following two tables also need to be completed and submitted with the pollution prevention plan

Table 1.

Activity/production processes	GHGs	2016 (actuals, tonnes)	2017 (actuals, tonnes)	2018 (budget ⁴ , tonnes)	2019 (budget ⁴ , tonnes)	2020 (budget ⁴ , tonnes)	Total GHG emissions (2018-2020)	Methodology ²
1A1a ¹	CO ₂	215 889 375	208 608 459					Tier 3
	CH ₄	2 281	1 489 ³					Tier 1
	N ₂ O	2 828	2 689					Tier 3
1A3a ^{1,5}	CO ₂	-	0.003408					Tier 1
	CH ₄	-	0.00000002383					Tier 1
	N ₂ O	-	0.00000009534					Tier 1
Totals in tonnes CO ₂ eq ⁶		216 779 034	209 438 627					

1. Intergovernmental Panel on Climate Change (IPCC) category 1A1a refers to "main activity electricity and heat production" and is the same category as that reflected in Annexure 1 of the National Greenhouse Gas Emission Reporting Regulations (notice 275 of 2017) and would correspond to the production process listed in the Pollution Prevention Plan Regulations (notice 712 of 2017) Annexure A, item "o" which includes "electricity production from fossil fuels, excluding the use of back-up generators". IPCC category 1A3a refers to "civil aviation".
2. The calculations of the emissions from these two sectors are dealt with in sections 12, 13 and 18 of the Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry Version No: TG-2016.1 April 2017 which in turn refer to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. The Tier 3 methodology for 1A1a uses a carbon mass balance approach.
3. For methane (CH₄), the Tier 1 method was used prior to 2017, including in the budget forecast undertaken in 2015.
4. The budget values quoted in years 2018, 2019 and 2020 are those provided to Department of Environmental Affairs ahead of the pilot carbon budget allocation from Department of Environmental Affairs (letter reference 149970, dated 21 December 2015). The assumptions underpinning the budget allocation were based on the Eskom Holdings Corporate Plan (2015/16 to 2019/20) including the prevailing electricity demand forecast, projected power station energy availability factors, existing independent power producer purchase agreements and expected new build commissioning dates.
5. Activity levels associated with 1A3a have only been reported subsequent to the National GHG Reporting Regulations coming into force from 3 April 2017.
6. The Global Warming Potentials for N₂O and CH₄ of 296 and 23 were used respectively to calculate the CO₂eq. These are the GWP's required as per the South African GHG Reporting Technical Guidelines Version No: TG-2016.1 April 2017.

Table 2. Planned mitigation measure

Mitigation measure	Description of mitigation measure	Anticipated implementation period (years)	Assumptions used to estimate anticipated GHG emission reduction	GHG to be abated	Anticipated emission reduction (tonnes)					
					2017	2018	2019	2020	Total GHG emission reduction (2018-2020)	
More efficient production	Preferentially load higher efficiency, lower emitting coal-fired power stations and reduce the load on lower efficiency, higher emitting coal-fired power stations	July 2018 – December 2020	For the current electricity demand and coal-generated volumes forecast as per the Eskom Holdings Corporate Plan (2018/2019 to 2022/23) ¹ there will be sufficient generation capacity for the system to preferentially load those coal-fired power stations that have higher efficiencies and lower emissions, especially Medupi and Kusile	CO ₂						
Total (tonnes CO₂eq)										9 911 000

1. These assumptions include, amongst others, the current electricity demand forecast, power station energy availability factors (excluding coal supply or labour-related disruptions), expected independent power producer purchases and other non-coal electricity contributions and completion of the new build programme according to current P80 commissioning dates.

