

ESKOM HOLDINGS (SOC) LIMITED

Appellant

and

NATIONAL AIR QUALITY OFFICER

First Respondent

GROUNDWORK

Second respondent

EARTHLIFE AFRICA JOHANNESBURG

Third respondent

RESPONDING STATEMENT TO ESKOM'S APPEAL

INTRODUCTION

1. This is a responding statement made on behalf of groundWork, and Earthlife Africa, Johannesburg (jointly referred to as “**the Second and Third Respondents**”) opposing the appeal submitted by Eskom Holdings SOC Ltd (“**Eskom**”) in respect of a number of the National Air Quality Officer’s (“**NAQO**”) decisions on Eskom’s applications for postponement of compliance and suspension of compliance with the Minimum Emission Standards (“**MES**”), and/or weaker alternative limits, for its fleet of coal-fired power stations. These decisions are all dated 30 October 2021 (“**the decisions**”).
2. groundWork Trust (“**groundWork**”), a non-profit environmental justice campaigning organisation working primarily in South Africa, in the areas of Climate and Energy Justice, Coal, Environmental Health, Waste, Environmental Justice, Education and Environmental Justice Information. groundWork has its offices at 8 Gough Street, Pietermaritzburg, KwaZulu-Natal, South Africa.
3. Earthlife Africa (“**ELA**”), is a non-profit organisation that seeks a better life for all people without exploiting other people or degrading their environment, by

encouraging and supporting individuals, businesses and industries to reduce pollution, minimise waste and protect our natural resources. ELA has its offices at 87 De Korte Street, Braamfontein, Johannesburg, South Africa.

4. In terms of Section 21 of the National Environmental Management: Air Quality Act, 2004 (“**AQA**”), the List of Activities came into force on 1 April 2010 and prescribes MES for various polluting activities, including for pollutants emitted from Eskom’s solid-fuel (coal) combustion installations.
5. The purpose of the MES and the List of Activities is — as the full title of the List of Activities suggests — to control and reduce the emission of harmful pollutants which may have a significant detrimental impact on the environment, including health, social, and economic conditions, among others. Subject to its proper implementation and enforcement, the MES in the List of Activities is referenced as a reasonable legislative measure to give effect to section 24(a) and (b) of the Constitution of the Republic of South Africa, 1996 (the “**Constitution**”).
6. This responding statement is submitted in terms of regulation 5 the National Appeal Regulations, 2014 (“**Appeal Regulations**”) to oppose the Appeal lodged by Eskom challenging the decisions issued by NAQO in respect of some of its power stations.
7. In this responding statement, we address the following aspects in turn:
 - A. Background;
 - B. The Relevant Legal Framework;
 - C. Response to the Appeal; and
 - E. Conclusion.

A. BACKGROUND

8. During the period 2018 – 2020, Eskom applied for a combination of 5-year postponements of compliance, suspensions of compliance, and for alternative (weaker) limits in relation to the MES compliance timeframes, ultimately covering

14 of its coal-fired power stations (the “**applications**”), in addition to applications for its liquid-fuel stations.

9. The Life After Coal (“**LAC**”) Campaign¹ — comprising of the Second and Third Respondents and the Centre for Environmental Rights (“**CER**”) — submitted detailed written objections to all of Eskom’s applications.²
10. On 30 October 2021, the National Air Quality Officer (“**NAQO**”) made decisions in response to each of Eskom’s applications covering its 14 coal-fired power stations, as well as Eskom’s liquid-fuel power stations.
11. On 13 December 2021, Eskom lodged an appeal to the Minister of the Department of Forestry, Fisheries and the Environment (“**DFFE**” or “**Department**”) challenging the following decisions by the NAQO:
 - 11.1. Postponement Applications for Matla, Duvha, Matimba, Medupi and Lethabo which were all refused in their entirety; and
 - 11.2. Postponement Applications for Majuba, Tutuka, Kendal, and Kriel which were all partially granted.
12. On 9 February 2022, the Second and Third Respondents lodged their appeal in terms of section 43(1) of the National Environmental Management Act, 1998 (“**NEMA**”), read together with Regulation 3(1) of the Appeal Regulations and the

¹ Life After Coal campaign, a joint campaign by the Centre for Environmental Rights (CER), groundWork (gW), and Earthlife Africa Johannesburg (ELA) that aims to: discourage the development of new coal-fired power stations and mines; reduce emissions from existing coal infrastructure and encourage a coal phase-out; and enable a just transition to sustainable energy systems for the people. CER, gW, ELA, are registered interested and affected parties in relation to Eskom’s applications for suspension of compliance, postponement of compliance, and/or alternative limits.

² namely:

1. submissions on the background information document (bid) for Eskom’s second postponement application in respect of the 2015 MES for Tutuka power station, submitted in February 2018;
2. submissions on Eskom’s bid and application for suspension of compliance, postponement of compliance, and/or alternative weaker limits for 10 of its coal-fired power stations (Lethabo, Majuba, Camden, Kriel, Matla, Kendal, Duvha, Arnot, Hendrina and Komati), submitted in September 2018 and February 2019, respectively;
3. objections to Eskom’s application for a once-off suspension of compliance with the new plant MES and variation request for the Grootvlei power station, submitted in July 2020; and
4. objections to Eskom’s applications for alternative weaker limits to the MES for the Medupi and Matimba power stations submitted November 2019 and in August 2020.

Guideline on the Administration of Appeals, 2015 (the “**Appeal Guidelines**”), in respect of a number of the NAQO’s decisions on Eskom’s applications for postponement of compliance and suspension of compliance with the MES, and/or weaker alternative limits, for its fleet of coal-fired power stations. That appeal was lodged in respect of the decisions concerning Eskom’s Kendal, Tutuka, Majuba, Camden, Hendrina, Arnot, Komati, Grootvlei, and Kriel power stations. Neither of the appeals has yet been decided.³ A copy of the appeal statement is attached as “**Annexure 1**”.

13. On 14 March 2022, the DFFE issued a statement, stating that several appeals have been instituted by interested and affected parties and that, “*[d]ue to the complex and conflicting nature of the issues raised in the appeals received, the Minister is of the view that a consultative process will assist in ensuring that all issues arising from the appeals can be addressed in a meaningful and resolute manner*”. The statement confirmed that the appeal process would be held in abeyance pending the outcome of the consultative process. A copy of this statement is attached as “**Annexure 2**”.

14. On 12 May 2022, notice was given by the Minister of the intention to establish a National Environmental Consultative and Advisory Forum (“**MES Forum**”) in terms of section 3A of the NEMA to advise the Minister on matters arising from the applications for suspension and postponement of compliance with the MES and the applications for the issuance of Provisional Atmospheric Emission Licences.⁴ This notice also places Eskom’s appeal in abeyance. On 18 August 2022, further notice was given by the Minister establishing the MES Forum for a period of 12 months.⁵ According to this notice, the purpose of the MES Forum is to conduct an extensive consultative process with key interested and affected parties and to assess, interrogate, and review the relevant research in respect of the non-compliance with

³ Based on the timeframes provided for in the Appeal Regulations under the NEMA, those decisions ought to have been taken, by 25 May 2022.

⁴ Government Gazette No 46355.

⁵ Government Gazette No 4676.

the MES and the issuance of Atmospheric Emissions Licences (AELs). The LAC has been engaging with the Forum since its establishment.

15. According to the Appeal Regulations, Interested and Affected Parties have a right to be notified of appeals. Eskom never provided the Second and Third Respondents with its Appeal documents as stipulated by regulation 4(1) of the Appeal Regulations. Requests for copies of the Appeal were sent to both Eskom and the DFFE and no response was forthcoming. On 8 November 2022, almost a year after Eskom lodged its appeal, we received a copy of the appeal documents through the MES Forum. On 9 November 2022, we received a copy of Eskom's "updated" MES Application, also through the MES Forum. Regulation 5 of the Appeal Regulations states that an Interested and Affected Party may respond to an appeal within 20 days from the date of receipt of the appeal submission.
16. On 18 November 2022, we sent an email to the DFFE recording that we received a copy of Eskom's Appeal and "updated" MES application through the MES Forum and reserving our right of reply. We requested the Department to confirm when the timeframe to reply to Eskom's appeal begins to run – in light of the appeal being held in abeyance due to the current process through the MES Forum. We also requested the Department to advise on the process and timeframes going forward for Eskom's latest updated MES application. On 21 November 2022, we received a response from the Department's Dr Vincent Gololo, copying the relevant officials and informing us that they would respond to our query. A copy of this correspondence is attached as "**Annexure 3**".
17. On 31 January 2023, the CER on behalf of the Second and Third Respondents, submitted written submissions to the MES Forum on the applications for postponement/suspension of MES compliance timeframes including the related appeals, the applications for the issuance of Provisional Atmospheric Emission Licences (PAELs) and regarding the MES Forum process. The written submissions contained the Second and Third Respondents' preliminary response to this Appeal

at paragraphs 69 to 99 of the submissions. The Second and Third Respondents stand by the preliminary response contained in those submissions.⁶

18. On 6 March 2023, we sent an email to the DFFE, following up on our email of 21 November 2022 requesting clarification of the appeal timelines for Eskom's appeal in light of the MES appeals being held in abeyance due to the MES Forum process. On 6 April 2023, we received a response from the Department's Heloise van Schalkwyk, stating that:

"It has come to our attention that you were not provided with the Eskom appeal, in light of the forgoing and the fact that the Eskom appeal has been kept in abeyance, you are now informed that you may submit your responding statements.

Please note that your 20-day period for response will commence as from today 6 April 2023."

A copy of this email correspondence is attached as "**Annexure 4**".

19. It is on the basis of the above correspondence that it is deemed that the last day for the Second and Third Respondents to submit the responding statement is 2 May 2023. This is due to the number of public holidays observed from 6 April 2023. In this regard, the Appeal regulations provide as follows:

"(2) When a period of days must be reckoned in terms of these Regulations, the period must be reckoned as from the start of the day following that particular day to the end of the last day of the period, but if the last day of the period falls on a Saturday, Sunday or public holiday, that period must be extended to the end of the next day which is not a Saturday, Sunday or public holiday, and the period of 15 December to 5 January must be excluded from the reckoning of days.

(3) Where a prescribed timeframe is affected by one or more public holidays, the timeframe must be extended by the number of public holiday days falling within that timeframe."

⁶ A copy of the submissions to the MES Forum can be found at [*gw-and-ela-1.pdf \(cer.org.za\)](#)

B. RELEVANT LEGAL FRAMEWORK

20. In terms of section 18(1) of the AQA, the Minister may, by notice in the Gazette, declare a Priority Area if she, *inter alia*, reasonably believes that ambient air quality standards are being, or may be, exceeded in the area, or any other situation exists which is causing, or may cause, a significant negative impact on air quality in the area; and the area requires specific air quality management action to rectify the situation. We wish to highlight the fact that the power stations which are the subject of this appeal are all situated in Priority Areas (Matla, Duvha, Majuba, Tutuka, Kendal and Kriel are located in the Highveld Priority Area (“**HPA**”), Matimba and Medupi is located in the Waterberg-Bojanala Priority Area (“**WBPA**”), and Lethabo Power Station is located in the Vaal Triangle Priority Airshed Area (“**VTAPA**”). Given the already poor air quality in these areas, it is crucial that Eskom be held to high standards of compliance.
21. Section 24 of the Constitution guarantees everyone the right to an environment not harmful to health or wellbeing, and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. The overarching environmental legislation which implements section 24 of the Constitution is the NEMA, including the environmental management principles in section 2 of NEMA (the “**NEMA Principles**”), to which an organ of state must adhere to in all decision-making and when exercising other functions. These principles will be set out in further detail in the subsequent section of this statement.
22. As the Constitution is the supreme law and the obligations imposed by it must be fulfilled.⁷ All law and conduct must be measured against, and give effect to, the environmental rights in section 24 of the Constitution, consistent with an open and

⁷ Section 2 of the Constitution.

democratic society based on human dignity, equality, and freedom. Therefore, any law or conduct deemed to be inconsistent with it is invalid.

23. The Landmark High Court judgment in the case of *Groundwork Trust and Another v Minister of Environmental Affairs and Others*⁸ (“**High Court judgment**” or “**Deadly Air case**”), confirms that the Constitutional right to an environment not harmful to health or wellbeing is a right that is immediately, and not progressively realisable. The judgment recognises the health implications of air pollution caused by Eskom power stations in the HPA⁹:

*“It is commonly accepted that **the air pollution in the Highveld Priority Area is responsible for premature deaths, decreased lung function, deterioration of the lungs and heart, and the development of diseases such as asthma, emphysema, bronchitis, tuberculosis and cancer.** It is also acknowledged that children and the elderly, especially with existing conditions such as asthma, are particularly vulnerable to the high concentrations of air pollution in the Highveld Priority Area.”*¹⁰ (Emphasis added)

24. The judgment also acknowledges that “*the enduring and unsafe levels of air pollution in the Highveld Priority Area are an **ongoing violation of the section 24(a) constitutional rights of residents.** This violation necessarily violates **other constitutional rights, including the rights to dignity, life, bodily integrity and the right to have children’s interests considered paramount in every matter concerning the child***”¹¹ (emphasis added). The High Court has thus confirmed that the government is in breach of peoples’ section 24 rights in the Highveld – a breach which it must take urgent steps to remedy.

25. Enacted to give effect to section 24 of the Constitution and the NEMA Principles, the AQA aims to ensure that air pollution is not harmful to human health or

⁸ *Groundwork Trust and Another v Minister of Environmental Affairs and Others* [2022] ZAGPPHC 208.

⁹ Eskom power stations are responsible for the “lion’s share” of air pollution in the HPA. See Report by Dr. H. Andrew Gray “Air quality impacts and health effects due to large stationary source emissions in and around South Africa’s Mpumalanga Highveld Priority Area (HPA)”. See page 2 of the Report which states: “[Eskom’s] 14 facilities are responsible for the lion’s share of air pollution.

¹⁰ High Court judgment at para 70.

¹¹ Ibid at para 76.

wellbeing, and to enhance the air quality in South Africa.¹² The AQA provides that its interpretation and application must be guided by the NEMA Principles.

26. In terms of section 9 of the AQA, the National Ambient Air Quality Standards (“**NAAQS**”) have been set for eight pollutants (nitrogen dioxide (“**NO₂**”), ozone (“**O₃**”), sulphur dioxide (“**SO₂**”), carbon monoxide (“**CO**”), benzene (“**C₆H₆**”), lead (“**Pb**”), Particulate Matter (“**PM**”) PM10 and PM2.5. The NAAQS are intended to be health-based, and “broadly accepted as a proxy for air that it not harmful to health and well-being”,¹³ or “to objectively define what quality of ambient air South Africans agree is not harmful to their health and wellbeing”.¹⁴
27. The National Framework for Air Quality Management (the current iteration of which is the 2017 National Framework for Air Quality Management (“**2017 Framework**”), lists requirements and conditions that must be met for an application for a postponement or suspension of the compliance date with the MES. We submit that the following legal position is clear from the 2017 Framework:
- 27.1. postponements of the 2015 MES are no longer permitted – all facilities must now, as a minimum, meet the 2015 MES;
- 27.2. in limited circumstances, including demonstration of compliance with existing plant standards and NAAQS, only one postponement, per pollutant, is permitted for the 2020 MES, **and such postponement may not extend beyond 5 years (i.e., all plants must meet the 2020 MES by 31 March 2025)**;
- 27.3. in limited circumstances, including demonstration of compliance with existing plant standards and NAAQS, along with a clear decommissioning schedule, facilities to be decommissioned by 31 March 2030 may receive a once-off suspension of compliance with the 2020 MES, by no later than 31 March 2030; and
- 27.4. a facility may apply for an alternative emission limit or emission load, **provided it demonstrates compliance with the NAAQS and demonstrates previous reduction in emissions of the said pollutant or**

¹² Section 2 of the AQA.

¹³ Section 5.2.3.4 of the 2017 National Framework.

¹⁴ Section 5.4.3.2 of the 2017 National Framework.

pollutants, and direct investments implemented towards compliance with the relevant new plant standards.

28. In light of the above, we submit that the 2017 Framework is the “national Framework for achieving the objectives of [the AQA]”¹⁵ and it “binds all organs of state in all spheres of government”.¹⁶ Eskom may not lawfully apply for postponements, suspensions, or alternative emission limits, unless and until the ambient air quality within air-shed priority areas where a power station is located, is compliant with the NAAQS. As explained below, this is not the case; and for this reason alone, an application should be summarily rejected.
29. The List of Activities came into force on 1 April 2010 and prescribes MES for various polluting activities, including solid fuel combustion installations such as Eskom’s coal-fired power stations for PM, SO₂ and NO_x for both “new plants” and “existing plants”. Eskom was not only aware of this provision at least from April 2010, but it was aware several years before that that mandatory emission limits would come into force, requiring “*minimisation of pollution through vigorous control, cleaner technologies and cleaner production practices. . .to ensur[e] that air quality is improved*”.¹⁷
30. The amended List of Activities provides as follows in relation to applications for postponement and suspension of MES compliance, and alternative emission limit applications:
- “(11A) An existing plant may apply to the National Air Quality Officer for a once off postponement with the compliance timeframes for minimum emission standards for [a] new plant as contemplated in paragraph (10). A once-off postponement with the compliance timeframes for minimum emission standards for [a] new plant may not exceed a period of five years from the date of issue. No once-off postponement with the compliance time frames will be valid beyond March 2025.”*¹⁸

¹⁵ See paragraph 1.3 of the 2017 Framework.

¹⁶ Ibid.

¹⁷ Preamble to the National Environmental Management Act: Air Quality Act 39 of 2004.

¹⁸ Paragraph 11A of the List of Activities.

“(11B) An existing plant to be decommissioned by 31 March 2030 may apply to the National Air Quality Officer before 31 March 2019 for a once-off suspension of compliance timeframes with minimum emission standards for [a] new plant. Such an application must be accompanied by a detailed decommissioning schedule. No such application shall be accepted [by] the National Air Quality Officer after 31 March 2019.”¹⁹

“(11C) An existing plant that has been granted a once-off suspension of the compliance timeframes as contemplated in paragraph (11B) must comply with minimum emission standards for existing plant from the date of granting of the application and during the period of suspension until decommissioning”²⁰

“(11D) No postponement of compliance timeframes or a suspension of compliance timeframes shall be granted for compliance with minimum emission standards for [an] existing plant”²¹

“(12A)(a) An existing plant may submit an application regarding a new plant standard to the National Air Quality Officer for consideration if the plant is in compliance with other emission standards but cannot comply with a particular pollutant or pollutants.”²²

“(12A)(b) An application must demonstrate a previous reduction in emissions of the said pollutant or pollutants, measures and direct investments implemented towards compliance with the relevant new plant standards.”²³

“(12A)(c) The National Air Quality Officer, after consultation with the Licensing Authority, may grant an alternative emission limit or emission load if: (i) there is material compliance with the national ambient air quality standards in the area for pollutant or pollutants applied for; or (ii) the Atmospheric Impact Report does not show a material increased health risk where there is no ambient air quality standard.”²⁴

31. Eskom power stations - are responsible for the “lion’s share” of air pollution in the HPA.²⁵ As an organ of state, significant emitter and a major source of air pollution in South Africa, Eskom is legally required, at all times, to limit its emissions to help ensure compliance with the NAAQS and reduce its impacts on public health. In

¹⁹ Paragraph 11B of the List of Activities.

²⁰ Paragraph 11C of the List of Activities.

²¹ Paragraph 11D of the List of Activities.

²² Paragraph 12A(a) of the List of Activities.

²³ Paragraph 12A(b) of the List of Activities.

²⁴ Paragraph 12A(c) of the List of Activities.

²⁵ See report by Dr. H. Andrew Gray “Air quality impacts and health effects due to large stationary source emissions in and around South Africa’s Mpumalanga Highveld Priority Area (HPA)”. See page 2 of the Report which states: “[Eskom’s] 14 facilities are responsible for the lion’s share of air pollution.

addition to the leniency that emitters have been granted, it is also important to note that South Africa's ambient air quality standards are in fact notoriously weak and not aligned with the World Health Organization ("**WHO**") Guidelines.²⁶ South Africa's NAAQS are much weaker than those set out in the WHO 2005 Air Quality Guidelines, and very much weaker than the revised WHO Guidelines published in September 2021.

32. In terms of the List of Activities, all existing facilities must comply with new plant standards by 2025 (following a once-off 5-year postponement if granted). In light of the above, the legal position as set out in the AQA, the 2017 Framework and the List of Activities (with accompanying MES)²⁷ - which is binding on Eskom, as an organ of state - is clear and unambiguous. The legal requirements are therefore summarised as follows:

- 32.1. Existing plants had to comply with more lenient standards by 1 April 2015 and they had to adhere to stricter new plant standards by 1 April 2020 ("**2020 MES**"), subject to successful applications to postpone or suspend compliance where the explicit criteria for these applications have been satisfied;
- 32.2. in limited circumstances, including demonstration of compliance with existing plant standards and national ambient air quality standards, only one postponement, per pollutant, is permitted for the 2020 MES, and such postponement may not extend beyond 5 years (i.e., all plants must meet the 2020 MES by 31 March 2025 – unless a valid suspension in terms of paragraph 11B of the List of Activities has been granted);
- 32.3. Emitters may not lawfully apply to postpone their compliance with the MES, or apply to suspend MES compliance, unless and until the ambient air quality within the three-priority air-shed areas where their power stations are located are in compliance with the NAAQS²⁸;

²⁶ WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide Global update 2005 Summary of risk assessment and WHO global air quality guidelines. Particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide (2021).

²⁷ See section 7(4) of the AQA.

²⁸ Government Notice 1210 (Government Gazette 32816) of 24 December 2009, under the National Environmental Management: Air Quality Act, 2004 (AQA).

- 32.4. A facility that will be decommissioned by 31 March 2030, may apply for a once-off suspension of compliance with new plant MES, provided the application is accompanied by a detailed decommissioning schedule;²⁹
- 32.5. Paragraph 11D of the List of Activities makes it clear that alternative emission limits that are weaker than the existing plant MES, may not be considered, let alone granted; and
- 32.6. An application for an alternative limit to a new plant standard must demonstrate a previous reduction in emissions of the said pollutant or pollutants, measures and direct investments implemented towards compliance with the relevant new plant standards, and there must be compliance with the NAAQS in the area for pollutant or pollutants applied for.³⁰

C. RESPONSE TO THE APPEAL

33. The effect of Eskom's "updated" Minimum Emission Standards Application on Eskom's appeal and the 2021 NAQO Decisions remain unclear, nor have the Second and Third Respondents been formally notified of this application or provided with an opportunity to comment as per section 12 of the MES, which refers to the public participation process set out in terms of the NEMA and Regulations 41 to 44 of the Environmental Impact Assessment Regulations for public comment processes. In any event, it is noted that the timeframes for the lawful submission of postponement and suspension applications have now long passed. As such, Eskom cannot permissibly bring any further postponement or suspension applications. The List of Activities and the 2017 Framework are very clear in this regard.
34. Eskom seeks to appeal the NAQO Decisions on their postponement applications in respect of its **Matla, Duvha, Matimba, Medupi** and **Lethabo** power stations which were all refused by the NAQO in their entirety.

²⁹ Paragraph 11B of the List of Activities.

³⁰ Para 12A(b) and (c)(i) of the List of Activities.

35. We support the NAQO's refusal of the aforementioned applications, save for the instances where we disagree with the alternative limits granted in respect of some power stations and where suspension applications were granted in the absence of clear decommissioning schedules as required. In this regard, we refer to Eskom's appeal of the NAQO's decision partially granting its applications in respect of **Tutuka, Majuba, Kendal** and **Kriel** power stations. The alternative NO_x limit granted to **Tutuka, Majuba and Kendal** is unlawful, and it was unlawful for **Kriel** to be granted a suspension from compliance without a detailed and clear decommissioning schedule accompanying the application. The applications relating to these power stations were **partially granted** in Eskom's favour as follows:

- 35.1. **Majuba:** Eskom's request for postponements from existing plant standards (1400 mg/Nm³ monthly from 1 April 2020) was partially granted from 1 April 2020 to 31 March 2025 with the emission limit of 1300 mg/Nm³ in respect of NO_x. In respect of SO₂, postponement from existing plant standards (3500 mg/Nm³ from 1 April 2020 until 31 March 2025) was permitted at a level of 3200 mg/Nm³ in terms of an existing postponement. The postponement from new plant standards from 1 April 2025 until decommissioning was refused.
- 35.2. **Tutuka:** Eskom's request for a postponement from NO_x new plant standards (1200 mg/Nm³ from 1 April 2020 until 31 March 2025 was partially granted (1100 mg/Nm³ from 1 April 2020 to 31 March 2025). Postponements in respect of PM and SO₂ were refused.
- 35.3. **Kendal:** Eskom's request for a postponement from NO_x new plant standards (1100 mg/Nm³ from 1 April 2020 until 31 March 2026 and 750 mg/Nm³ monthly thereafter) was partially granted (1100 mg/Nm³ from 1 April 2020 to 31 March 2025). Postponements in respect of PM and SO₂ were refused.
- 35.4. **Kriel** – we note that Eskom applied for a suspension of compliance and not a postponement as erroneously stated in its Appeal document. The Kriel suspension was partially granted. Suspension of compliance was granted for PM (100 mg); SO₂ (2800 mg) and NO_x (1100 mg); Decommissioning plan by November 2022.

36. These aspects of the decisions relating to Tutuka, Majuba, Kendal and Kriel form part of the Second and Third Respondents' appeal mentioned at paragraph 12 above.

Ad paragraphs 2.1. to 2.3.- Eskom's request for an extension/Condonation application

37. These points are noted. However, we reiterate that Eskom failed to adhere to Regulation 4(1) of the Appeal Regulations, in that it did not provide the Second and Third Respondents, as Interested and Affected Parties, with copies of its appeal submissions.

Ad paragraphs 3.1 to 3.22 - Points *in limine* (Conciliation)

Ad paragraphs 3.1 to 3.4 – Disagreement on the mandate of the DFFE

38. Eskom submits that section 17(1) of the NEMA is applicable to the circumstances of this appeal and that it is consequently appropriate for the Minister to refer the matter for conciliation before reaching a decision on the appeal. In the alternative, Eskom submits that section 17(2) of NEMA is applicable and requests the Minister to appoint a facilitator to call and conduct meetings of Interested and Affected Parties (including relevant organs of state) with the purpose of reaching an agreement and to refer the present difference or disagreement, to conciliation.³¹

39. Eskom makes this submission based on the following points:

- 39.1. The difference or disagreement is that the NAQO has misconstrued the DFFE's mandate as the DFFE is required to consider sustainable development in environmental management and when making decisions. Therefore, this is a "disagreement" concerning the exercise of the NAQO, DFFE and Minister's functions which may significantly affect the environment.
- 39.2. Alternatively, Eskom submits, there is disagreement regarding the protection of the environment in an appeal before the Minister. It submits that the

³¹ Eskom's Appeal Submissions at paras 3.1 and 3.2.

disagreement warrants the Minister appointing a facilitator to call and conduct meetings of interested and affected parties.

40. We submit that Eskom's point *in limine* lacks merit. The NAQO's mandate is very clearly set out in the List of Activities as the authority to which applications for postponement of compliance with the MES must be made. The NAQO exercised her discretion to decide on the postponement and suspension applications – as she was required and entitled to do – applying the very clear provisions and requirements for granting postponements as set out in the regulations. Eskom's applications did not satisfy the legal requirements set out in the List of Activities for the granting of postponements for MES compliance. There is no question of disagreement between the parties.

41. The mandate and core function of the DFFE is to manage, protect and conserve South Africa's environment and natural resources. The mandate is informed by section 24 of the Constitution. The DFFE's mandate is further clarified in the 2017 Framework where the role of the DFFE is to be the "lead agent for environmental management and hence air quality management, and must therefore, provide national norms and standards to ensure coordinated, integrated and cohesive air quality governance".³²

Ad paragraphs 3.5. to 3.10.13 and 3.20 to 3.22 - The meaning of sustainable development and a just energy transition are in dispute

42. Eskom submits that the meaning of sustainable development and a just energy transition are in dispute and the NAQO has adopted a "strict interpretation of the MES that is allegedly based on the protection of the environment as a sole consideration".³³

43. The MES and 2017 Framework contain an unambiguous set of legal requirements for applications for postponement and suspension of compliance with the MES which we have set out in paragraph 32 above. Eskom failed to meet these

³² 2017 Framework at page 13.

³³ Eskom's Appeal Submissions at para 3.5.

requirements. The NAQO has limited flexibility regarding the decisions she can make in light of these legal requirements. The cover letter of the Decisions (“**cover letter**”) states that the Decisions are based on the requirements of the current legal framework, in addition, it states that “the NAQO does not have the prerogative to issue decisions that are outside the current legal provisions or are in non-compliance with the law.” A copy of the cover letter is attached as “**Annexure 5**”.

44. Eskom’s contention that a “strict” interpretation of the MES was undertaken is especially untenable in light of the purpose of the List of Activities and the MES, which is reflected in the full title of the notice. The MES were developed in line with the principles of sustainable development. To control atmospheric emissions which have or may have a significant detrimental effect on the “**environment, including health, social conditions, economic conditions, ecological conditions, or cultural heritage**,”³⁴ the Minister first published the List of Activities and associated MES, in terms of section 21 of the AQA on 31 March 2010. The MES prescribe the permissible amount, volume, emission rate, or concentration of the pollutant or mixture of pollutants, as well as the manner in which measurements of such emissions must be carried out. The purpose of the MES is in the long form of its title, which indicates that several factors were at play in setting the limits and different stakeholders, including big industrial polluters such as Eskom were consulted. Subject to its proper implementation and enforcement, the MES in the List of Activities is referenced as a reasonable legislative measure to give effect to section 24(a) and (b) of the Constitution.
45. With regard to the manner in which the MES are set, section 2(2)(b) of the NEMA requires that “*environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account **the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the Best Practicable Environmental Option***” (“**BPEO**”) (emphasis added). Section 5.4.3.4 of the 2017 Framework states that the Department shall rely on the BPEO when setting

³⁴ Refer to the full title of the List of Activities and the MES.

standards in relation to Listed Activities. The BPEO has been defined as “the option that **provides the most benefit or causes the least damage to the environment as a whole**, at a cost acceptable to society in the long-term as well as in the short-term”.

46. The List of Activities were set in a multi-stakeholder process over several years, in which Eskom was an active participant. In this regard, we refer to the following press statement published by the then DEA on 4 December 2014, which states:

“It is important to note that the development of the Section 21 Notice constituted an elaborate consultation and participation processes in terms of Section 56 and 57 of the AQA. All affected stakeholders (including Eskom) were part of these processes and they made contributions regarding limits that are achievable with the view of upholding the constitutional right of all people in the country to an environment that is not harmful to health and well-being.

....

An extensive consultation process was followed in setting these emission standards over a 5-year period. This process:

- *continuously engaged with all stakeholders around the identification of listed activities and their associated minimum emission standards; and*
- *reviewed current national and international work related to the identification of activities and their related minimum emission standards. Eskom participated directly in this process, and **standards seek to balance the economic, social and environmental imperatives.**”³⁵ (emphasis added)*

47. In light of the above, it is clear that the MES (and the Air Quality Management Legal Framework as a whole) was developed through the consideration of sustainable development and the different aspects of it. Furthermore, Eskom cannot at this point (where it has been unable to meet the MES) take issue with the NAQO’s application of the MES, when it was an active participant in the process developing these standards. In making the Decisions, the NAQO was required to consider the legal

³⁵ [The Department of Environmental Affairs clears the air on the atmospheric emission license for Kriel Power Station | Department of Environmental Affairs \(dffe.gov.za\)](http://www.dffe.gov.za/press-releases/2014/12/04/section-21-notice/)

requirements for postponements and suspension of compliance with the MES. Therefore, a “strict interpretation of the MES” based on the protection of the environment as a sole consideration” is simply not plausible as the requirements are clearly set out in the legal instruments.

48. We strongly object to the notion that Eskom’s existing and intentional mode of operation, including its approach to compliance with air pollution laws over the past decade (at least), has “attained” – or even contributed towards – sustainable development in South Africa. Furthermore, we submit that the way Eskom operates its facilities, even as projected in its Just Energy Transition (“**JET**”) Strategy and Emission Reduction Plan (**ERP2022**), is inadequate to achieve a version of sustainable development that is consistent with the Constitution. The preamble of the Air Quality Act confirms this reality.³⁶
49. To further demonstrate the extent of Eskom’s track record of AEL non-compliance, it is also important to note that in 2020, summons was issued against Eskom’s Kendal Power station notifying it of the decision by the Senior Public Prosecutor to pursue a criminal prosecution against it in respect of air pollution. This includes a charge of supplying false and misleading information in reports prepared by management at Kendal to an Air Quality Officer. This is a criminal offence listed in Section 51(1)(g) of the AQA. To our knowledge, these criminal proceedings are pending. In addition, as far back as 2010, Eskom was allegedly granted a loan by the World Bank, containing a condition to install FGD.³⁷ In 2019, it appears that Eskom was granted yet another loan for Medupi. The New Development Bank (“**NDB**”) website indicates that on 31 March 2019, the NDB approved a loan amount of 480 million USD to Eskom for the Environmental Protection Project for Medupi. The Project, which according to the NDB website, “is designed to support South Africa’s commitment to reducing environmental pollution in the energy sector”, includes the design and construction of six FGD units in order to achieve SO2

³⁶ “WHEREAS the quality of ambient air in many areas of the Republic is not conducive to a healthy environment for the people living in those areas let alone promoting their social and economic advancement; And whereas the burden of health impacts associated with polluted ambient air falls most heavily on the poor; And whereas air pollution carries a high social, economic and environmental cost that is seldom borne by the polluter; . . .”

³⁷ [Eskom is seeking to break terms of \\$3.75bn World Bank loan \(iol.co.za\)](https://www.iol.co.za/news/south-africa/2010/05/12/eskom-is-seeking-to-break-terms-of-3.75bn-world-bank-loan-120512)

emission reduction at Medupi.³⁸ Despite this large amount of funding allegedly granted to Eskom, FGD installation at Medupi remains incomplete, illustrating the lack of good faith by Eskom to take steps to comply with the MES.

50. It is submitted that sustainable development is integrally linked with the principle of “intergenerational justice”. This is a rejection of short-termism as it requires the state to consider the long-term impact of pollution on future generations.³⁹ Regarding air pollution and sustainable development, The High Court judgment in the *Deadly Air* case states:

*“The principle of sustainable development further requires that measures put in place to achieve economic development should not sacrifice the environment and human life and wellbeing and it must be that a balance should be struck. Where one trumps the other, it cannot be said the right of section 24(a) has been achieved.”*⁴⁰

51. Eskom cites the judgment in *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others (“Fuel Retailers”)*⁴¹ to make its contentions about sustainable development. In that same judgment, Ngcobo J writes the following:

*“But **development cannot subsist upon a deteriorating environmental base. Unlimited development is detrimental to the environment and the destruction of the environment is detrimental to development. Promotion of development requires the protection of the environment. Yet the environment cannot be protected if development does not pay attention to the costs of environmental destruction. The environment and development are thus inexorably linked.**”*⁴² (our emphasis)

³⁸ [Environmental Protection Project For Medupi Thermal Power Plant - New Development Bank \(ndb.int\)](http://ndb.int)

³⁹ High Court judgment at para 45.

⁴⁰ Ibid at para 75.

⁴¹ 2007 (6) SA 4 (CC) at paragraph 44

⁴² Ibid at paragraph 44.

52. We submit that the poor air quality in the HPA has persisted for years and was furthermore held to be a violation of residents' rights in terms of section 24 of the Constitution. Eskom and other industrial polluters' non-compliance with the MES is development that fails to pay attention to the costs of environmental destruction contrary to the *Fuel Retailers* judgment referred to above. We submit that Eskom's understanding of sustainable development in a constitutional society appears to be flawed in this context.

Ad Paragraphs 3.10.1, 3.10.21 to 3.10.22, 3.10.27, 3.10.30 and 3.10.22 to 3.10.23 - Non-consideration of the NEMA Principles and sustainable development

53. Eskom refers to certain NEMA Principles⁴³, to argue that the NAQO's decisions are at odds with environmental principles for, *inter alia*, the following reasons:

53.1. The NAQO failed to place people and their needs at the forefront of environmental management in that, on her own version, she neglected to consider the fact that her Decisions would result in the closure of power stations and an associated 16 000 to 30 000 MW of supply to the national grid. This lack of capacity cannot practically be provided for and as result Eskom would be required to implement stage 8 load shedding immediately and stage 15 load shedding by 2025.⁴⁴

53.2. A Constitutional "right to electricity" is implied due to the effect of the impact of electricity on other Constitutional rights⁴⁵

53.3. Implementing the present Decision will require the installation of costly retrofits for Flue-Gas Desulphurisation ("FGD") pollution abatement technology leading to a cost of at least R300 billion and a tariff increase of 10% for this infrastructure.⁴⁶

53.4. Eskom remains underfunded and without a cost-reflective tariff.⁴⁷

53.5. The DFFE's decision on MES compliance poses a risk to the clean energy transition associated with the JET and will also hike electricity tariffs.⁴⁸

⁴³ Including sections 2(2) and 2(3) of the NEMA.

⁴⁴ Eskom's Appeal Submissions at para 3.10.1.

⁴⁵ Ibid.

⁴⁶ Ibid at para 3.10.21.

⁴⁷ Ibid at para 3.10.22.

⁴⁸ Ibid at para 3.10.27.

- 53.6. The NAQO favours the environment above social and economic considerations in the sustainable development enquiry instead of balancing the three pillars of the sustainability enquiry, which is what is required to inform environmental management in terms of the principles of NEMA, NEMAQA and the Constitution.⁴⁹
- 53.7. NAAQS non-compliance in the Highveld and Vaal Priority areas are not a result of Eskom alone.⁵⁰ Focusing on eliminating Eskom's power station emissions alone will not result in acceptable ambient air quality levels that are not harmful to human health and the environment.⁵¹
54. We highlight the other NEMA Principles which Eskom has not considered, but which are just as relevant, as follows (our emphasis):
- 54.1. **the environment is held in public trust for the people**, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage ("public trust doctrine");⁵²
- 54.2. a **risk-averse and cautious approach must applied**, which takes into account the limits of current knowledge about the **consequences of decisions and actions** ("precautionary principle");⁵³
- 54.3. **negative impacts on the environment and on people's environmental rights must be anticipated and prevented**, and where they cannot be altogether prevented, must **be minimised and remedied** ("preventive principle");⁵⁴
- 54.4. **pollution and degradation of the environment are avoided**, or, where they cannot be altogether avoided, are **minimised and remedied** ("preventive principle");⁵⁵

⁴⁹ Ibid at para 3.10.30.

⁵⁰ Ibid at para 3.10.32

⁵¹ Ibid at para 3.10.33.

⁵² Section 2(4)(o) of the NEMA.

⁵³ Section 2(4)(a)(vii) of the NEMA.

⁵⁴ Section 2(4)(a)(viii) of the NEMA.

⁵⁵ Section 2(4)(ii) of the NEMA.

- 54.5. **responsibility for the environmental health and safety consequences** of a policy, programme, project, product, process, service or activity exists throughout its lifecycle;⁵⁶
- 54.6. **sensitive, vulnerable, highly dynamic or stressed ecosystems...require specific attention in management and planning procedures**, especially where they are subject to significant human resource usage and development pressure;⁵⁷
- 54.7. **the cost of remedying the pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects** must be paid for by **those responsible for harming the environment** (“polluter pays’ principle”);⁵⁸ and
- 54.8. **use and exploitation of non-renewable natural resources must be responsible and equitable**, and take into account the **consequences** of the depletion of the resource.⁵⁹
55. According to the 2017 Framework, when deciding the postponement and suspension applications, the DFFE and NAQO must, amongst other things, consider the state of the air quality in order to uphold the objectives of the AQA: to give effect to section 24 of the Constitution, minimize pollution through vigorous control, cleaner technologies and cleaner production practices.⁶⁰ The purpose of the AQA encompasses the NEMA principles quoted in paragraph 54 above and also the principle of environmental justice.
56. Eskom was given ample time to comply with the MES. This is recognised by the 2017 Framework which states:
- “it should be noted that the year 2020 marks 10 years since the publication of the 2010 AQA Section 21 notice (Listed activities and minimum emission standards). Therefore,*

⁵⁶ Section 2(4)(e) of the NEMA.

⁵⁷ Section 2(4)(r) of the NEMA.

⁵⁸ Section 2(4)(p) of the NEMA.

⁵⁹ Section 2(4)(v) of the NEMA.

⁶⁰ See the Preamble to the AQA.

*sufficient time has been afforded to industry towards compliance with the initial MES by 2020.*⁶¹

57. Eskom fails to provide a reasonable explanation as to why it delayed to begin – and/or adequately progress and plan for - the abatement equipment installations. It knew that it would have to comply with the MES, at the very latest, since the year 2010.

58. We further submit that regardless of the presence of other sources and factors of ambient air pollution, Eskom is the main cause of air pollution in the HPA.⁶² Therefore, MES compliance is crucial in order to improve the air quality and essentially secure the health and well-being of the residents. At this juncture we again refer to the judgment in the *Deadly Air* case and the declaratory order against the Minister confirming that air pollution levels in the Highveld are in breach of peoples' constitutional right to an environment not harmful to health and wellbeing. It is accordingly the Minister, and the DFFE's constitutional imperative to take whatever legal steps are at their disposal to remedy this constitutional violation.

Ad paragraphs 3.10.14 to 3.19 and 3.10.25 to 3.10.37 : Eskom's Emission Reduction Plan and Updated MES Application

Ad paragraphs 3.10.14 to 3.20

59. Eskom refers to its Emission Reduction plan as a “phased and prioritised approach to MES compliance”⁶³ and states that the reduction of PM emissions has been prioritised. Furthermore, that Nox projects will be undertaken at Tutuka, Matla, Lethabo and Majuba.

60. The content of these paragraphs is noted as well as Eskom's Emission Reduction Plan (“**ERP2022**”). We object to a “phased-in approach” to compliance with the

⁶¹ 2017 Framework at page 61.

⁶² See report by Dr. H. Andrew Gray “Air quality impacts and health effects due to large stationary source emissions in and around South Africa's Mpumalanga Highveld Priority Area (HPA)”. See page 2 of the Report which states: “[Eskom's] 14 facilities are responsible for the lion's share of air pollution.

⁶³ Ibid at para 3.10.14

long-standing legal requirements, especially in light of the High Court judgment confirming the immediately realisable nature of the right in section 24.

61. Furthermore, we submit that the timeframes for applications for postponement and suspension of compliance with the MES has passed. Paragraph 5.4.3.4 of the 2017 Framework and paragraph 11A of the MES states that existing facilities may apply for a once-off postponement of compliance timeframes for new plant standards for a period not exceeding 5 years and no postponement would be valid beyond 31 March 2025. Furthermore, Paragraph 11B of the MES, makes it clear that an application for suspension of compliance will not be accepted, let alone considered, after 31 March 2019. It is therefore unclear on which basis Eskom submitted its updated MES application centered on its ERP2022. The Department cannot consider this application, which appears to have been submitted on 9 November 2022, which is substantially past the timeframes set out in the 2017 Framework and the MES.
62. It is for the above reasons that we will not engage with the contents of the updated application, save to place the following points on record:
- 62.1. In this updated MES application, Eskom seeks postponement of compliance with the MES new plant standards beyond the year 2025 for some of its stations, this is clearly in contravention of Paragraph 5.4.3.4 of the 2017 Framework and Paragraph 11A of the MES.
- 62.2. Eskom also seeks suspensions of compliance with the MES for some of the power stations. Eskom submits that its JET strategy proposes the shutdown of Tutuka by 2030, and as such, Eskom would request suspension of the new plant limits for Tutuka until decommissioning rather than planning to implement additional NO_x, PM and SO₂ projects to obtain compliance with new plant standards. This is a clear contravention of Paragraph 11B of the MES, as the timeframe for submitting such an application has long passed.
- 62.3. In other instances, Eskom requests alternative limits which are weaker than the existing MES standards, in flagrant violation of paragraph 11D of the MES.
- 62.4. The DFFE cannot entertain this application as it is blatant disregard of the legal provisions.

63. With respect to the FGD projects at Medupi and Kusile, we wish to place on record our knowledge of and objection to Eskom's application for postponement of compliance with new plant standards in respect of SO₂ at Kusile and its plan to build temporary stacks which will bypass the FGD.
64. We reiterate that Eskom did not meet the legal requirements for their applications for postponement and suspension of compliance with the new plant standards, which was what the NAQO had to consider in making the Decisions. Furthermore, the DFFE cannot consider the updated MES application.

Ad paragraphs 3.10.25 to 3.10.37 – Eskom's JET Strategy

65. Eskom's JET Strategy is noted; however, we submit that this strategy does not constitute the legally required emission reduction efforts as Eskom seems to contend. Eskom failed to fulfil the requirement of demonstrating previous reduction in emissions of the said pollutant or pollutants. We emphasize that Eskom has a long history of non-compliance and has known about these standards for over a decade. Eskom is encouraged to accelerate the coal phase-out, as well as the roll-out of solar PV and/or wind power generation demand off the grid and therefore reduce loadshedding. This would reduce energy poverty and outdoor and indoor air pollution, thereby saving lives and health costs. Eskom and the government need to do much more and much faster to deploy clean renewable electricity alternatives to enable these polluting facilities to come offline. It must be borne in mind that the rapid decarbonisation of the electricity generation system – effectively amounting to the most rapid possible programme of coal plant decommissioning – is a core principle and objective of the Just Energy Transition. Moreover, a core value of a just transition – leave no-one behind – is generally accepted to mean mitigating the impacts on workers and communities of decarbonising. Any actions that have the effect of prolonging high carbon electricity generation, and maintaining the ongoing harms as outlined herein, arguably runs counter to the intentions of a just transition.

Ad paragraphs 3.11 – 3.22: Intergovernmental co-ordination and co-ordination between organs of state

66. Eskom submits that the Decisions do not result in the coordination and harmonisation of policies, legislation and actions relating to the environment. In this regard, the Decisions, if upheld, would jeopardise sustainable development and the JET. Eskom relies on principles 2(4)(l) and (m) of the NEMA which provide for inter-governmental co-ordination and harmonisation of policies and resolution of conflicts between organs of state respectively.⁶⁴
67. Eskom further submits that the issues that arise in this appeal raise actual or potential conflicts of interest between various organs of state, including, but not limited to, Eskom (as an organ of state), the DFFE, the Department of Mineral Resources and Energy, National Treasury, the Department of Water and Sanitation, the Department of Public Enterprises and Eskom.⁶⁵ This point has not been sufficiently contended in the Appeal and it remains unclear what the nature of the conflict is.
68. Eskom fails to consider the other NEMA principles in making its contentions on sustainable development, in addition, even the principles which they have quoted go against their argument. For instance, Eskom relies heavily on section 2(2) of the NEMA which provides “[e]nvironmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.” In this regard, we refer to evidence indicating the health impacts of coal-fired power stations and our submissions at paragraphs 69 to 72 below.
69. Dr Mike Holland assessed the health impacts and associated economic costs of emissions from Eskom’s coal plants in 2017.⁶⁶ His assessment, which focused on the role of PM2.5 in the atmosphere following the release of pollutants, such as SO₂ and NO_x, estimated that the following impacts are attributable to Eskom’s emissions: **2 239 deaths per year**: 157 from lung cancer; 1 110 from ischaemic heart disease; 73 from chronic obstructive pulmonary disease; 719 from strokes; and 180 from lower respiratory infection; **2 781 cases of chronic bronchitis per**

⁶⁴ Ibid at para 3.13.

⁶⁵ Ibid at para 3.16

⁶⁶ Health impacts of coal fired power plants in South Africa, Dr Mike Holland (EMRC).

year in adults; 9 533 cases of bronchitis per year in children aged 6 to 12; 2 379 hospital admissions per year; 3 972 902 days of restricted activity per year; 94 680 days of asthma symptoms per year in children aged 5 to 19; and 996 628 lost working days per year.

70. We refer also to report by the Centre for Research on Energy and Clean Air (“**CREA report**”) which projects emissions, air quality impacts and the resulting health and economic impacts of air pollution from Eskom’s coal power plant fleet under different scenarios of compliance with the MES. Below are its key findings:

70.1. **Full compliance with the MES would reduce emissions of SO₂ by 60%, PM by 50%, NO_x by 20% and mercury by 40%,** compared with a scenario of no improvements in emission control technology.⁶⁷

70.2. Eskom’s proposed retrofit plan would bring the fleet into compliance with the MES for PM and realise the associated emissions reductions by 2030, five years after the deadline. However, **the plan would only reduce SO₂ by 13%, NO_x by 11% and Hg by 3%, compared with a scenario of no improvements in emission control technology.** The small reductions in SO₂ emissions are the main concern, as SO₂ is the pollutant with by far the largest health impacts from Eskom’s power plants, due to the formation of secondary PM_{2.5}.⁶⁸

70.3. Notably, Eskom’s retrofit plan (“ERP 2022”) only realises one quarter of the health benefits associated with compliance with the MES, due to the dismal failure to address SO₂ emissions.⁶⁹

70.4. Under Eskom’s planned retirement schedule and emission control retrofits, emissions from the company’s power plants would be responsible for a projected 79 500 air pollution-related deaths from 2025 until end-of-life.⁷⁰ On a cumulative basis until the end-of-life of the power plants, **compliance would avoid a projected 34 400 deaths from air pollution and economic costs of R620 billion (USD 41.7 billion).**⁷¹

⁶⁷ CREA report at page 4.

⁶⁸ Ibid.

⁶⁹ Ibid at page 2.

⁷⁰ Ibid.

⁷¹ Ibid.

- 70.5. In addition, **full compliance with the MES at all plants that are scheduled to operate beyond 2030 would avoid a projected 2 300 deaths per year from air pollution and economic costs of R42 billion (USD 2.9 billion) per year.**⁷²
- 70.6. Other avoided health impacts would include **140 000 asthma emergency room visits, 5 900 new cases of asthma in children, 57 000 preterm births, 35.0 million days of work absence, and 50 000 years lived with disability.**⁷³
- 70.7. Requiring the application of **best available control technology** at all plants, instead of the current MES, by 2030, **would avoid 57 000 deaths from air pollution and economic costs of R1, 000 billion (USD 68.0 billion) compared to the Eskom plan, ERP 2022.**⁷⁴
71. Importantly, the health costs of Eskom's noncompliance with MES would be unacceptably high. In recommending full compliance with the legal standards, 34 400 lives could be saved. The CREA report demonstrates the magnitude of the health impacts of non-compliance and the associated costs. It also shows the deficiencies in the Eskom's retrofit plan 2022, particularly from a health perspective. This report shows that, in addition to the detrimental health impacts MES non-compliance would give rise to – which constitute a violation of section 24 of the Constitution – Eskom's failure to comply and adoption of the ERP2022 also has impacts on the economy and national fiscus. A copy of the CREA Report is attached as "**Annexure 6**".
72. Many of the settlements in close proximity to Eskom's power stations are generally low -income settlements. Furthermore, residents of these settlements who suffer from ill health due to the air pollution rely mostly on public health facilities, and sometimes have to pay for private medical services due to not receiving adequate medical attention from public health facilities. We refer to the supporting affidavits

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid.

in the High Court judgment founding papers in this regard, attached hereto as “**Annexure 7**”.⁷⁵

73. As demonstrated above, air pollution from Eskom’s coal-fired power stations impacts significantly upon the health of those living in close proximity to them, and these health impacts inevitably give rise to additional cost burdens, borne by those affected, and ultimately, by the state.
74. Non-compliance with the MES and the effects thereof would be contrary to the NEMA Principles of **Environmental Justice** and ensuring that adverse environmental impacts shall not be distributed in such a manner as to **unfairly discriminate against any person, particularly vulnerable and disadvantaged persons**.⁷⁶ Furthermore, it is also contrary to the public trust doctrine, polluter-pays principle, precautionary principle, preventative principle and the principle providing for responsibility for environmental health and safety consequences throughout the lifecycle of an activity, as outlined in paragraph 54 above. The NAQO’s decisions therefore cannot be against sustainable development as they recognise the constitutional imperative of the DFFE to give effect to the rights stipulated in section 24. Furthermore, the health impacts of non-compliance, indicate that Eskom has failed to demonstrate fulfilment of the requirement that its emissions are not causing direct adverse impacts on the surrounding environment as stipulated in paragraph 5.4.3.4 of the 2017 Framework.
75. With regards to Eskom’s concerns on the impacts of Wet FGD on water supply and climate change, we refer to the report of the expert SO₂ Panel (“**SO₂ Report**”), which was appointed in 2018, to provide strategic and technical guidance towards effective management of SO₂ from old and existing power generation plants. The SO₂ Panel considered a number of technologies that are available to reduce SO₂ emissions from listed activities, each with its own advantages and disadvantages. The Report concludes that meeting an MES of 500mg/Nm³ SO₂ at plants burning

⁷⁵ The founding papers can be accessed here: [DA-Court-Papers_pagenummer-1.pdf \(cer.org.za\)](#)

⁷⁶ Section 2(4) (c) of the NEMA.

coal requires a reduction of about 85% in flue gas SO₂ concentrations.⁷⁷ The technologies the Panel considered, apart from Wet FGD, are:

75.1. Semi-dry absorption;

75.2. Dry sorbent injection (DSI); and

75.3. A number of developing technologies such as New Integrated Desulphurization (NID), Circulating Dry Scrubbing (CDS, also CFB scrubbing), SNOX™ and ReACT. SDA and CDS have substantially lower water demand and capital costs than Wet FGD.⁷⁸

76. It is important to point out that there are technologies to abate SO₂ that use fundamentally less water. It is well established that reduction of air pollution at coal plants through pollution control technologies comes with other environmental risks to water, soil and climate, but that does not negate the legal and moral obligation to reduce air pollution. In addition, we note that none of the NAQO Decisions required Eskom to specifically install Wet-FGD. Eskom is encouraged to explore and research the other available options.

Conclusion on preliminary points

77. It is submitted that any claimed economic, energy supply and other benefits deriving from MES non-compliance would significantly be outweighed by the social and economic harm likely to be caused by the health impacts of air pollution resulting from noncompliance and adoption of the ERP2022.

78. While we acknowledge, we do not concede the alleged possible economic and social consequences of MES compliance. In this regard we emphasise that the consideration of people's needs also requires consideration of the impacts of such decisions on human health in circumstances also where human rights are violated as a result of unacceptable levels of air pollution, directly related to noncompliance with MES. People should not have to choose between jobs and their health or electricity and health – as these are all essential. Eskom was consulted in the development of the MES. Further, the feasibility of cleaner energy technology

⁷⁷ SO₂ Report, page 9.

⁷⁸ SO₂ Report, particularly pages 9 - 11 and page 18.

alternatives has always been available, and Eskom should have looked into this much earlier. We submit that the subject of this appeal relates to compliance with the law, and that this is not negotiable.

79. A Just Transition calls for the internalising the health costs of coal and other fossil fuels to the polluters' accounts.⁷⁹ This is also in line with the concept of environmental justice and the polluter pays principle which are part of the NEMA Principles which Eskom has failed to consider in its Appeal. We submit that "economic activity that sacrifices people's health can never be labelled as sustainable or justifiable".⁸⁰ Therefore, Eskom must simply bear the cost of compliance as the entity, which is responsible for it, this is stipulated by the law.
80. There is no merit in referring the issues arising out of the Decisions to conciliation or arbitration as requested by Eskom. We note that Eskom has also been participating in the MES Forum process referred to above. Although this process is not a conciliation or arbitration process, it has been established as a consultative forum to assess all the relevant issues and provide the Minister with a report thereafter.⁸¹

Ad paragraphs 4.1 to 4.38 - First Ground of Appeal: Decisions unlawful, irrational and unreasonable – relevant considerations were not considered.

81. Eskom submits that the following considerations should have been considered by the NAQO:
- 81.1. multiple units at the coal-fired stations will not be able to operate in compliance with the limits imposed in the NAQO Decision. As a result, South Africa will experience Stage 8 load-shedding for every hour that the units are down and 30GW shutdown by 2025, resulting in Stage 15 load-shedding.⁸²
- 81.2. the installation of FGD will result in the emission of CO₂ and water scarcity. The increased CO₂ emissions will place Eskom and South Africa in breach

⁷⁹ 2 LAC Just Transition Open Agenda at Just Transition Open Agenda – [Just Transition Open Agenda – Life After Coal/Impilo Ngaphandle Kwamalahle](#)

⁸⁰ Ibid.

⁸¹ See MES Terms of reference at <https://cer.org.za/wp-content/uploads/2023/02/Forum-Establishment-Notice-and-Terms-of-Reference.pdf>

⁸² Eskom Appeal at para 4.4.

of the country's international climate change commitments and will subject Eskom (and the country) to increased tax in terms of the Carbon Tax Act, 2019.⁸³

- 81.3. Requiring FGD means that the transport of the sorbent would result in environmental impacts, notably greenhouse gas emissions and fugitive dust emissions.⁸⁴
- 81.4. It is impossible to construct FGD for Eskom's fleet of facilities by 2025.⁸⁵
- 81.5. The scenario options considered in the development of the Eskom 2035 Plan *"do not revolve around whether there is emissions compliance or not – they revolve around the timing of the achievement of a reduction in various levels of emissions."*⁸⁶
- 81.6. On the Minister/DFFE's own version in the papers of the *Deadly Air* case, cost and technical feasibility play a role in relation to the MES. Therefore, the NAQO's Decision is not in line with the Minister's approach as set out in the court papers. The Reasons for the Decisions neglected to consider the acceptable margin of safety, which the NAQO is required to consider.⁸⁷
82. Eskom further submits that by neglecting to consider the consequences or implications of the Decisions (including megawatt losses to the grid, which will have other consequences, including job losses and significant impacts to South Africa's economy), the Decisions are rendered irrational and/or unreasonable.⁸⁸
83. We submit that Eskom appears to be misdirecting itself, compliance with the MES is a legal issue and complying with the law cannot be negotiable or evaded. It appears that throughout its Appeal, Eskom takes the position that the environment is being considered above all factors but fails to address or even acknowledge the very serious and deadly human health impacts of its non-compliance, or the very clear legal requirements that leave decision-makers with little discretion.

⁸³ Ibid at para 4.25.

⁸⁴ Ibid at para 4.19.

⁸⁵ Ibid at para 4.25

⁸⁶ Ibid at para 4.27.

⁸⁷ Ibid at para 4.25

⁸⁸ Ibid at para 4.32.

84. We submit that this is merely about compliance with the law – laws adopted by Parliament and regulations promulgated by the Minister. Compliance with the law is not negotiable. Prior to promulgation, these laws and MES were negotiated over many years together with polluting industry. Since then, not only has industry been granted enormous leniency in relation to these laws, but it has succeeded in significantly weakening some of them.
85. South Africa is founded on a number of democratic values, including the supremacy of the Constitution and the rule of law.⁸⁹ In terms of section 1(a)(ii) of PAJA, the powers to exercise administrative action are derived from and only extend insofar as the legislation, in this case AQA, allows. It also requires all organs of state, juristic persons and individuals to comply with the laws promulgated to give effect to the Constitution. Compliance with the rule of law is mandatory and not subject to negotiation or discretion.
86. In relation to human health, there are no safe levels of exposure to several pollutants. Applying a margin of safety as a determining factor (although we again submit that the law is quite clear here on the requirements) is even more reason to refuse Eskom's Appeal, in considering the thousands of lives that could be saved in enforcing the NAAQS (and by consequence the MES), by the DFFE's own admission. Our submissions at paragraphs 69 to 73 above on the health impacts are relevant.

Ad paragraphs 5.1 to 5.5: Second Ground of Appeal: Decisions unlawful, irrational and unreasonable – failure to give adequate consideration to the Atmospheric Impact Report, fact that ambient air quality generally complies with the applicable National Ambient Air Quality Standards and acceptable margin of safety.

87. Eskom submits that compliance with the ambient air quality standards in the HPA and VTAPA with respect to NO₂ and SO₂ are variable and, in general, there is compliance with the NAAQS. In the WBPA, there is compliance with the NAAQS

⁸⁹ Section 1 (c) of the Constitution.

for PM, NOx and SO2.⁹⁰ Furthermore, implementing the Eskom JET programme will see a reduction of some 50% of Eskom's CO2 emissions by 2035.⁹¹

88. Importantly, Eskom intends to apply for a postponement of compliance with the new plant standards for SO2 at Kusile due to a recent malfunction on the West Stack. We refer to our submissions at paragraph 63 above. Eskom's claim that "*the decommissioning of the older stations and increased use of the newer, less emitting Medupi and Kusile will also result in a substantial decrease in Eskom's emissions over time*"⁹² now even more strongly lacks merit. Furthermore, it is projected that the proposed bypass stacks at Kusile will result in a 6-fold increase in SO2 emissions, causing highly aggravated and intensified health impacts.

89. The acceptable margin of safety is not a legal standard or requirement that the NAQO ought to have considered by virtue of her statutory duties – we reiterate that all such requirements are contained in the List of Activities and the 2017 Framework.

90. In addition to non-compliances, Eskom has a staggering track record of exceedances of limits in its Atmospheric Emission Licences – a number of which go unreported and underestimated. A 2019 report by air pollution expert, Dr Ranajit Sahu, demonstrated that for the period April 2016 through December 2017, 14 operating coal fired power stations reported 3 217 exceedances of applicable daily AEL limits for PM, SO2, and NOx. The two most frequent exceedances occurred at Lethabo (PM and NOx), Matla (NOx), Matimba (SO2), Kriel (PM), Duvha (PM), and Kendal (PM) – all of these power stations form the subject of this Appeal.⁹³

⁹⁰ Ibid at para 5.1

⁹¹ Ibid.

⁹² Ibid at para 5,2

⁹³ Eskom Power Station Exceedances of Applicable Atmospheric Emission License (AEL) Limit Values for PM, SO2 & NOx During April 2016 to December 2017 at <https://cer.org.za/wp-content/uploads/2019/04/Ron-Sahu-Eskom-Exceedances-Reportupdated-March-22-201>

91. A recent report by Earth Justice⁹⁴, presents numbers of exceedances of AEL limits for PM, SOx and NOx from April 2021 through March 2022, and compares these to numbers of exceedances from April 2016 through March 2017. All exceedances were counted regardless of grace, contravention or NEMA Section 30 categorisation. This report also contains calculations of emission intensity⁹⁵, which is the amount of pollution emitted per unit of energy produced, for PM, Sulphur Oxides (Sox) and (NOx) - the three main pollutants which are the subject of this submission and the appeals - by dividing tons of pollutants emitted per month and by gigawatts of energy produced for April 2021 through March 2022.⁹⁶ This report, a copy of which is attached hereto as “**Annexure 8**”, finds as follows:

- 91.1. Eskom’s 15 power stations reported 2 309 exceedances of AEL limits between April 2021 and March 2022. Most of these exceedances were for PM (2003 exceedances by 13 stations) followed by NOx (194 exceedances by 6 stations) and SOx (112 exceedances by 3 stations).
- 91.2. Regarding PM exceedances, the worst offenders, with over 100 exceedances per year, were Lethabo, Kendal, Matla, Kriel, Tutuka, and Matimba.
- 91.3. When it comes to SOx exceedances, most power stations did not exceed their AEL limits for SOx in 2021-2022. In 2021-22, three Eskom power stations exceeded their AEL limits for SOx a combined total of 112 times. The worst offender was Kusile, with 103 exceedances (Kusile was not operating in 2016-17).
- 91.4. With respect to NOx, in 2021-2022, 6 Eskom power stations exceeded NOx limits a combined total of 194 times. The worst offender by far was Camden, with 117 exceedances. However, this is an overall improvement from 2016-2017, when 7 out of 14 stations exceeded AEL limits for NOx.

⁹⁴ Earthjustice is the premier nonprofit public interest environmental law organization. It wields the power of law and the strength of partnership to protect people’s health, to preserve magnificent places and wildlife, to advance clean energy, and to combat climate change. See more at [Earthjustice: Because the earth needs a good lawyer](#)

⁹⁵ Emission intensity: (grams of pollutant per kilowatt-hour, equivalent to tons of pollutant per gigawatt-hour). The higher the emission intensity value, the more polluting the facility per electricity output.

⁹⁶ 7 Tons per gigawatt hour is equivalent to grams per kilowatt hour.

92. We refer also to the High Court judgment in the Deadly Air case discussed above, and to the reports by the NAQO (the State of the Air Reports), which paint a dire picture for NAAQS compliance within the priority areas, particularly the HPA.⁹⁷

Ad paragraphs 6.1 to 6.5 - Third Ground of Appeal: Decisions unlawful – conditions imposed are irrational.

93. Eskom submits that the Decisions, although partial or negative, nevertheless impose conditions requiring offset programmes to be implemented and reporting requirements. Eskom submits that in circumstances where the Postponement Applications were refused, it is inappropriate and unlawful to attach binding conditions to adverse Decisions.⁹⁸ This is clear from regulation 13(b) of the MES, which does not empower the NAQO to impose conditions in a negative Decision.

94. Our position on offsets is simply that we do not object to measures being taken to supply households with cleaner energy sources, but this can in no way replace current regulatory and legal requirements. Reducing indoor pollution from cooking and heating should be done in addition to, not instead of, reducing outdoor air pollution. Offsetting air pollution by reducing some sources of emissions while failing to reduce others fails to protect the rights and health of all the people of South Africa, as vulnerable communities living closest to the power stations, coal mines and trucking routes will continue to be severely harmed by these sources (whether or not some of them have gas stoves in their homes to reduce indoor fuel burning). Eskom's continued reliance on the contribution of other less significant (by percentage) sources of emissions - which must, of course be reduced and, where possible, eliminated through other appropriate policy and legal means - however, is a muddying of the immediate issue of compliance with the law and should be dismissed.

D. CONCLUSION

95. In the circumstances, it is submitted that groundWork and Earthlife Africa's opposition to Eskom's appeal of the NAQO's 2021 Decisions relating to Matla,

⁹⁷ https://www.dffe.gov.za/sites/default/files/docs/2022airqualitylekgotlapresentations_stateofair.pdf

⁹⁸ Ibid at paras 6.1 and 6.2.

Duvha, Matimba, Medupi, Lethabo, Tutuka, Majuba, Kendal and Kriel power stations should be upheld.

DATED at Johannesburg on this 2nd day of May 2023



CENTRE FOR ENVIRONMENTAL RIGHTS

Second and Third Respondent's attorneys

Cape Town: 1st floor, Birkdale 2, River Park, 1 River Lane, Liesbeek Parkway, Mowbray 7700, South Africa

Johannesburg: 2 Sherwood Road, Forest Town, Johannesburg 2193, South Africa

Tel: 021 447 1647

Email: nmaphosa@cer.org.za;

msithole@cer.org.za

babdinor@cer.org.za

Ref: N Maphosa/B Abdinor

TO: DIRECTOR: APPEALS AND LEGAL REVIEW
DEPARTMENT OF ENVIRONMENT, FORESTRY,
AND FISHERIES

Appeal Authority

Environment House

473 Steve Biko

Arcadia

Pretoria

appealsdirector@environment.gov.za

Tel: 012 399 9356 Ref: Eskom/postponements

TO: NATIONAL AIR QUALITY OFFICER DEPARTMENT OF FORESTRY, FISHERIES
AND THE ENVIRONMENT

First Respondent

Environment House
473 Steve Biko
Arcadia Pretoria
pgwaze@dffe.gov.za

TO: ESKOM HOLDINGS SOC LTD
Appellant/Applicant
Bryan Mccourt
Generation Environmental Management
Megawatt Park Maxwell Drive Johannesburg
McCourBA@eskom.co.za / HerbstDL@eskom.co.za