

“ANNEXURE A”

EARTHLIFE AFRICA JOHANNESBURG

First Appellant

GROUNDWORK

Second Appellant

CHIEF DIRECTOR: INTEGRATED ENVIRONMENTAL

AUTHORISATIONS, DEPARTMENT OF

ENVIRONMENTAL AFFAIRS

First Respondent

NAMANE GENERATION (PTY) LTD

Second Respondent

**APPEAL PURSUANT TO SECTION 43(2) OF THE NATIONAL ENVIRONMENTAL
MANAGEMENT ACT, 1998 AGAINST ENVIRONMENTAL AUTHORISATION
GRANTED TO NAMANE GENERATION (PTY) LTD ON 28 FEBRUARY 2017**

INTRODUCTION

1. This is an appeal to the Honourable Minister of Environmental Affairs (“the Appeal” to “the Minister”), directed at the Director: Appeals and Legal Review of the Department of Environmental Affairs (DEA), to set aside the decision of the Chief Director: Integrated Environmental Authorisations of the DEA (as “the First Respondent”) dated 28 February 2017 to grant an integrated environmental authorisation (“the Authorisation”) to Namane Generation (Pty) Ltd (“the Applicant” and “the Second Respondent”).
2. The Authorisation is granted in terms of section 24L of the National Environmental Management Act, 1998 (NEMA) and permits the Applicant to undertake specific activities (“the Authorised Activities”), listed as environmental activities under section 24 of NEMA read with the NEMA Environmental Impact Assessment Regulations,

2014 (“the EIA Regulations 2014”)¹ and as waste management activities under section 20 of the National Environmental Management: Waste Act, 2008 (NEMWA) read with Government Notice 921 of 2013, in connection with the establishment of a 660 megawatt (MW) independent coal-fired power station and associated infrastructure near Lephalale in Limpopo Province, South Africa (“the Project”).

3. As appears from the attached Annexure **A1**, Earthlife Africa, Johannesburg (“the First Appellant”), was provided with the Authorisation by email dated 13 March 2017 (“the Notification”).
4. The Appellants submit that the Appeal should succeed and the Authorisation granted to the Second Respondent by the First Respondent should be set aside because the First Respondent’s decision to authorise the Project is unlawful in that it failed to comply with NEMA, NEMWA and the National Environmental Management: Air Quality Act, 2004 (AQA) for the reasons detailed below.
5. The Appellants further submit that there are grounds for judicial review under the Promotion of Administrative Justice Act, 2000 (“PAJA”) because the Authorisation comprises administrative action that *inter alia*:
 - 5.1. is unconstitutional or unlawful;²
 - 5.2. was taken because of the consideration of irrelevant considerations and the failure to consider relevant considerations;³
 - 5.3. is not rationally connected to the information before the First Respondent in making the Authorisation or to the reasons provided by the First Respondent for the Authorisation;⁴ and
 - 5.4. is so unreasonable that no reasonable person could have granted it.⁵
6. The Appeal is lodged on behalf of the Appellants in terms of section 43(1) of NEMA, which provides that “*any person may appeal to the Minister against the decision*

¹ GN R 982 with Listing Notices GNR 983. 984 and 985 GG 38282 of 4 December 2014.

² PAJA section 6(2)(d),(f)(i) and (i).

³ PAJA section 6(e)(iii).

⁴ PAJA section 6(f)(ii)(cc) and (dd).

⁵ PAJA section 6(h).

taken by any person acting under a power delegated by the Minister under [NEMA] or a specific environmental management act", read with the NEMA National Appeal Regulations, 2014⁶ ("the Appeal Regulations"), which provide for the submission of an appeal within 20 days from the date that the notification of the decision for an application for environmental authorisation (EA) or waste management licence (WML) was sent to the registered interested and affected parties (I&APs) by the applicant.⁷

7. Further submissions on the procedural fairness and constitutional validity of the appeal procedures provided for under the Appeal Regulations, as well as the procedures prescribed by the EIA Regulations, 2014 are made below.
8. In terms of Regulation 4(2)(a) of the Appeal Regulations, an appeal submission must be submitted in writing in the form obtainable from the appeal administrator⁸ and must be accompanied by – a statement setting out the grounds of appeal; supporting documentation which is referred to in the appeal submission; and a statement, including supporting documentation by the appellant to confirm compliance with regulation 4(1) of the Appeal Regulations – which is the requirement that an appellant submit an appeal to the appeal administrator, and a copy to the applicant, any registered I&AP, and organ of state with an interest in the matter within 20 days from the date that the notification of the authorisation was sent to I&APs by the applicant. The Appellants' grounds of appeal are submitted herein, with the necessary supporting documentation referred to and attached. The statement regarding compliance with Regulation 4(1) is contained in the cover letter to which these grounds of appeal are attached.
9. Pursuant to NEMA section 43(7), and as set out in the Notification, an appeal under section 43 "*suspends an environmental authorisation, exemption, directive, or any other decision made in terms of [NEMA] or any other specific environmental management Act, or any provision or condition attached thereto.*"

⁶ GN R 993 GG 38303 of 8 December 2014.

⁷ Regulation 4(1)(a) NEMA National Appeal Regulations, 2014.

⁸ In terms of Regulation 1(1) an "appeal administrator" means a holder of an office in the Department or Provincial Department responsible for environmental affairs who administers the appeal on behalf of the appeal authority."

PARTIES

10. The First Appellant is Earthlife Africa Johannesburg, an organisation that was founded in 1988 to mobilise civil society around environmental justice issues, and a registered I&AP in respect of the application process for the Authorisation. It is a membership organisation, with approximately 100 members at present, led by a Core Group, which serves as its management committee. The First Appellant challenges environmental degradation and aims to promote a culture of environmental awareness and sustainable development. It also seeks to improve the quality of life of vulnerable people in South Africa through assisting civil society to have a greater impact on environmental governance by understanding and defending their constitutional rights, specifically those enshrined in section 24 of the Constitution of the Republic of South Africa, 1996 (“the Constitution”).
11. The Second Appellant, groundWork, is an environmental justice and non-profit organisation that works with South and Southern African communities on environmental justice and human rights issues focusing on coal, climate and energy justice, waste and environmental health. The Second Appellant works with a number of community groups throughout South Africa, namely: South Durban Community Environmental Alliance; the Duzi-Umngeni Conservation Trust; Mfuleni Community Environmental Justice Organisation; South African Waste Pickers’ Association; Greater Middelburg Residents’ Association; and Highveld Environmental Justice Network and seeks to improve the quality of life of vulnerable people in South and Southern Africa through assisting civil society to have a greater impact on environmental governance. Although the Second Appellant was not a registered I&AP in respect of the Application, it is entitled, in terms of sections 32 and 43(2) of NEMA, to appeal the Authorisation.
12. The Appellants have legal standing to bring the Appeal not only in terms of section 43 of NEMA, but also to enforce environmental laws (including “*a principle contained in Chapter 1, or of any provision of a specific environmental management Act, or of any other statutory provision concerned with the protection of the environment or the*”).

use of natural resources”)⁹ in terms of NEMA section 32, in that they *inter alia* act: “(c) in the interest of or on behalf of a group or class of persons whose interests are affected; (d) in the public interest; and (e) in the interest of protecting the environment.”¹⁰

13. The First Respondent is the Chief Director: Integrated Environmental Authorisations, cited in his official capacity as the signatory of the Authorisation.
14. The Second Respondent is a private company - Namane Generation (Pty) Ltd (“Namane”). Namane is wholly owned by Namane Resources (Pty) Ltd, which also holds 100% of the shares in Temo Coal Mining (Pty) Ltd (“Temo”).

SUMMARY OF GROUNDS OF APPEAL

15. The grounds for appeal are set out in more detail in the section titled “Grounds of Appeal” below. In brief, the Appellants submit that the decision to grant the Authorisation should be set aside by the Minister because the First Respondent’s decision to grant the Authorisation contravenes:

15.1. the NEMA Principles;

15.2. the obligations under NEMA section 24O(1) to “*comply with this Act*”¹¹ and to account for all relevant factors,¹² in particular those regarding:

15.2.1. the pollution, environmental impacts or environmental degradation “*likely to be caused if the application is approved*”;¹³

15.2.2. feasible and reasonable alternatives, modifications or changes to the activity that may minimise environmental harm;¹⁴ and

15.2.3. any guidelines, departmental policies, and environmental management instruments and any other information in the

⁹ NEMA section 33(1).

¹⁰ NEMA section 33(1)(c)-(d).

¹¹ NEMA section 24O(1)(a).

¹² NEMA section 24O1(b).

¹³ NEMA section 24O1(b)(i).

¹⁴ NEMA section 24O1(b)(iv)

possession of the competent authority relevant to the Application;¹⁵

15.3. NEMA section 24(4), by *inter alia* failing to ensure with regard to the Application that:

15.3.1. the NEMA Principles and objectives of integrated environmental management are taken into account;¹⁶

15.3.2. the activity's potential environmental impacts are properly assessed;¹⁷ and

15.3.3. there are adequate public information and participation procedures with reasonable opportunity for public participation – In this regard we refer to the Appellants' contestation of the constitutionality of the Appeal Regulations and the EIA Regulations, 2014, below;¹⁸

15.4. the requirements under the EIA Regulations, 2014 that the competent authority has regard to, *inter alia*, the need for and desirability of the Authorised Activities;¹⁹ and

15.5. the constitutional rights to an environment that is not harmful to health or wellbeing, to have the environment protected and to just administrative action – as enshrined in sections 24 and 33 of the Constitution, respectively.

16. The contraventions of the requirements summarised above, are addressed in detail in this appeal.

17. The grounds for the appeal should be considered in light of the Project's background, as well as relevant information relating to the proposed location of the power plant.

¹⁵ NEMA section 24(4)(b)(viii).

¹⁶ NEMA section 24(4)(a)(ii).

¹⁷ NEMA section 24(4)(a)(iv).

¹⁸ NEMA section 24(4)(a)(v).

¹⁹ Regulation 18; Regulation 23(3) requires that an EIR must contain all the information set out in Appendix 3 to the EIA Regulations, 2014.

BACKGROUND

History of the Project

18. The background for this project, and indeed the Appeal, stems from the Integrated Resource Plan for Electricity (IRP) 2010-2030²⁰ (“IRP 2010”) developed by the Department of Energy (DOE) to determine South Africa’s long-term electricity demand and to detail how this demand should be met. It stated that a mix of generation technologies, including 6.3 gigawatts (GW) of coal, would be required to meet South Africa’s energy demands. The IRP 2010 was promulgated in March 2011, and it was indicated at the time that the IRP should be a “living plan” which would be revised by the DoE every two years, meaning that an update was required by 2013 (the IRP 2010 itself indicates that it would be revised in 2012). Although an IRP update report was published for comment in 2013, it was subsequently abandoned.²¹
19. The Base Case and Assumptions for a new IRP Update, as well as a draft Integrated Energy Plan (IEP), were published for comment in November 2016.²² The Appellants submitted comments on both the IRP Update Base Case and Assumptions and the draft IEP on 31 March 2017.²³ Both the IRP Update and the draft IEP have yet to be finalised, although this process is currently underway.
20. Flowing from the IRP 2010, the Minister of Energy, in December 2012, announced determinations regarding the expansion of electricity generation capacity by independent power producers (IPPs). The first part of the determination was for additional renewable energy generation capacity following on from a determination of August 2011, while the second part of the determination²⁴ was for additional base-

²⁰ GN 400 of 6 May 2011 Government Gazette no 34263.

²¹ In addition, although a draft 2012 Integrated Energy Plan was published for comment in 2013, it was not finalised.

²² These can be accessed at http://www.energy.gov.za/files/irp_frame.html.

²³ The Appellant’s comments can be accessed at <http://cer.org.za/wp-content/uploads/2017/04/IEP-IRP-gW-ELA-Comment-310317.pdf>.

²⁴ Part B, Government Notice 1075, Government Gazette no 36005 of 19 December 2012. Paragraph 1 states that baseload energy generation capacity is needed to contribute towards energy security, including 2500MW to be generated from coal, which is in accordance with the capacity to be allocated to coal under the heading “new build” for the years 2014 to 2024 in table 3 of the IRP for electricity 2010-2013.

load generation capacity of 7 761 MW, comprising 2 500 MW of energy from coal for connection to the grid between 2014 and 2024, with the remainder coming from gas power and imported hydro power.²⁵ The electricity produced was to be procured through one or more IPP procurement programmes²⁶ and the electricity must be purchased from the IPPs by Eskom Holdings SOC Limited (Eskom).²⁷ Each bid from an IPP is capped at 660 MW, which results in an additional 600 MW of net power to the grid.²⁸

21. The Coal Baseload Independent Power Producer Procurement Programme (CBIPPPP) was one of the initiatives developed by national government, which argued that the CBIPPPP would alleviate the constraints in electricity supply within the country. The CBIPPPP will comprise separate bid windows. According to the 15 December 2014 request for qualifications and proposals: the first bid submission date was 8 June 2015; projects submitted in this first bid phase must be capable of beginning commercial operation by December 2021; and each project must have a contracted capacity of not more than 600MW. Only two proposed IPP power stations submitted bids under the first bid window – Thabametsi and Khanyisa IPP power stations – and both were appointed preferred bidders under the CBIPPPP first bid window. Namane did not participate in the first bid window. Although a second bidding round is expected, at this stage, it is not known when or whether further bid windows under the CBIPPPP will be announced.

22. Flowing from the above, an application was made, and Authorisation subsequently granted, to Namane for the construction of a 660MW coal-fired independent power plant and associated infrastructure, the IPP Namane power station near Lephalale in the Limpopo Province (DEA reference number 14/12/16/3/3/3/210).²⁹

²⁵ <https://www.ipp-coal.co.za>.

²⁶ Paragraph 4, Part B, Determination under section 34(1) of the Electricity Regulations Act 4 of 2006, Government Notice 1075, Government Gazette no 36005 of 19 December 2012.

²⁷ Paragraphs 10 and 11, Part B, Determination under section 34(1) of the Electricity Regulations Act 4 of 2006.

²⁸ Namane Generation Independent Power Producer and Transmission Line Project, near Lephalale, Limpopo, Updated Environmental Impact Assessment and Management Programme, June 2016 (EIR June 2016) page 46.

²⁹ EIR June 2016 page 46.

23. Should the Project proceed, it is proposed that the construction phase will require approximately five years, thereafter the power plant's anticipated lifespan is 30 years.³⁰

Description of the Project

24. The activities and components entailed in the Project are considerable and include the construction of a thermal IPP using Circulating Fluidised Bed (CFB) combustion technology to generate power which will be supplied back into the national grid.
25. The power plant will include a 155 hectares (ha) main power plant area, consisting of two power plant production units (boiler/furnaces, turbines, generator and associated equipment, control room), including a central control room for both units. There will also be auxiliary plant buildings, including an administration building and a warehouse, as well as other operational support buildings. Further buildings on the site include maintenance workshops and storage facilities, including electrical and instrument workshops and stores, and a machine shop.³¹ The Project will also include a laboratory area for routine testing and specialised analysis and investigation, and a high voltage switchyard.
26. Further associated main infrastructure necessary for the Project includes:
- 26.1. a coal stockyard and storage areas;
 - 26.2. limestone stockyard and limestone crusher;
 - 26.3. weighbridge;
 - 26.4. stack;
 - 26.5. coal and limestone conveyers;
 - 26.6. water supply pipelines (temporary and permanent);
 - 26.7. medical centre and amenities including potable water, sanitary and sewer utilities, electrical utility interconnection, and telephone utilities;
 - 26.8. sanitary sewage treatment plant;

³⁰ EIR June 2016 page 56.

³¹ Integrated Environmental Authorisation 28 February 2017.

- 26.9. access road and internal roads;
 - 26.10. ash handling and disposal systems and 160 ha ash dump;
 - 26.11. ash dump runoff ponds;
 - 26.12. zero liquid effluent discharge/evaporation ponds;
 - 26.13. water storage reservoir for raw water supply;
 - 26.14. raw water treatment plant;
 - 26.15. waste storage areas; and
 - 26.16. overhead power lines to connect to the Eskom grid.³²
27. The specifics of the infrastructure of the proposed power plant will include a power plant and associated infrastructure, including transmission line routes. This entails construction of the following listed activities:
- 27.1. development of a coal-fuelled 660 MW power plant;³³
 - 27.2. development of transmission lines with a capacity of 400 kV;³⁴
 - 27.3. water supply and storage infrastructure;³⁵
 - 27.4. water pipelines exceeding 1000 m;³⁶
 - 27.5. an evaporation pond, storm water collection pond and raw water reservoirs, with a combined surface area of 4 ha and combined volume of 96 000 square meters;³⁷
 - 27.6. storage facilities for the storage of diesel during construction phase;³⁸
 - 27.7. development of a permanent access road to be constructed and maintained throughout the operational and decommissioning of the Plant;³⁹
 - 27.8. ash handling and disposal systems including an ash dump, ash runoff ponds, water storage reservoirs and evaporation ponds;⁴⁰

³² Environmental authorisation 28 February 2017.

³³ Listed Activity 2, Listing Notice 2 GNR 984, EIR June 2016 page 34.

³⁴ Listed Activity 9, Listing Notice 2 GNR 984, EIR June 2016 page 34.

³⁵ Listed Activity 9, Listing Notice 1 GNR 983, EIR June 2016 page 32.

³⁶ Listed Activity 10, Listing Notice 1 GNR 983, EIR June 2016 page 32.

³⁷ Listed Activity 13, Listing Notice 1 GNR 983, EIR June 2016 page 33.

³⁸ Listed Activity 14, Listing Notice 1 GNR 983, EIR June 2016 page 33.

³⁹ Listed Activity 24(ii), Listing Notice 1 GNR 983, EIR June 2016 page 33.

⁴⁰ Listed Activity 6, Listing Notice 2 GNR 984, EIR June 2016 page 34.

- 27.9. facilities or infrastructure related to the bulk transportation of coal transported from the neighbouring Temo mine: a total of 12 500 tonnes will be transported per day;⁴¹ and
- 27.10. construction of a water treatment facility to generate deionised water for the production of steam to power the gas turbines, with a daily throughput of 1.9 million cubic meters per day.⁴²
28. There is also a need for further infrastructure, which this project is reliant upon, but which is not covered by the Authorisation: a rail loop, with an internal footprint of 320 ha, connecting Namane Power Plant with the Temo Coal Mine. No application for an EA for the rail loop has been made, despite it potentially posing significant impacts if it is built.⁴³
29. The infrastructure needed specifically needs to facilitate the use of a CFB Boiler, which requires air, coal, and limestone to be blown into the combustion chamber to create a continuous circulating motion that keeps the coal suspended in the combustion area. Along with the boiler, there is also a steam turbine and generator. According to the Updated EIR, emissions from a CFB Boiler include both sulphur dioxide (SO₂) and nitrogen oxides (NO_x).⁴⁴
30. Further large components of the power plant proposed will be a coal handling system, condensers, limestone storage, ash collection, water treatment plant, electrical reticulation, Distributed Control System (DCS), fuel oil and draft air/gas systems.⁴⁵
31. At operational phase, the activities at the proposed power plant will include the delivery, handling, and storage of limestone and coal to the site, as well as the operation of the power plant itself and its associated infrastructure. This operation

⁴¹ Listed Activity 7(iii), Listing Notice 2 GNR 984, EIR June 2016 page 34.

⁴² Listed Activity 25, Listing Notice 2 GNR 984, EIR June 2016 page 35.

⁴³ EIR June 2016 page 55.

⁴⁴ EIR June 2016 page 53.

⁴⁵ EIR June 2016 page 53.

will involve increased vehicle use on the roads (including heavy vehicles), as well as the transport of ash to the dump.⁴⁶

32. In addition to the abovementioned listed activities in terms of NEMA, the Updated Environmental Impact Report (“the Updated EIR”) states that, during the operational phase, various pollutants “*will be released into the atmosphere as products of coal combustion: particulate matter (specifically PM10 and PM2.5), sulphur dioxide (SO2) and oxides of nitrogen (as NO2). Other major pollutants listed as applicable to power stations include carbon monoxide (CO), carbon dioxide (CO2)*”.⁴⁷ It is clear from this that the Project will have significant impacts on air quality in the area, which should be considered together with the cumulative impacts of industries already present. The Updated EIR and decision to grant the Authorisation fail to adequately take into account these and other air quality impacts of the Project.
33. The Updated EIR and Authorisation also fail to adequately consider the implication of the Project on already scarce water resources in the region. The proposed design of the power plant is described as one which uses “*CFB combustion technology due to the water-scarce nature of the Waterberg region*” and that “*it is proposed that the power plant will be designed to use dry-cooling technology to reduce the water resource requirement for the IPP*”.⁴⁸ However, the Updated EIR does not make it clear how this technology addresses the fact that the Waterberg region is a water-scarce area, while the plant has a throughput of 1.9 million cubic meters of water per day.
34. In addition, an ash storage facility is also proposed for the plant. The ash dump will be located on farm Duikerpan 249LQ and “*will have a life of 30 years (the same as that of the power plant)*”.⁴⁹ No specific footprint is reflected for the ash dump, but the total footprint of infrastructure for the power plant, associated infrastructure and the ash dump is 320 ha.⁵⁰ The stipulated footprint for the ash handling and disposal

⁴⁶ EIR June 2016 page 336.

⁴⁷ EIR June 2016 page 336.

⁴⁸ EIR June 2016 page 47.

⁴⁹ EIR June 2016 page 47.

⁵⁰ EIR June 2016 page 48.

systems and the ash dump (both proposed and future) is 160 ha.⁵¹ The Updated EIR indicates that ash will be transported from the power plant to the ash dump “*either via conveyer belts or trucks. Namane will also investigate a future option of backfilling ash mixed with discard or overburden back into the open mine pits at the Temo Coal Mine*” (own emphasis).⁵² The Updated EIR correctly states that separate permission would have to be sought from the DEA and Department of Water and Sanitation (DWS) in order to undertake this process. However, this indicates that the exact planned use of the ash is not clear in the Updated EIR. This should have been clarified in the Updated EIR as each use of ash will have its own environmental and health impacts.

35. As indicated, the proposed power plant will also require the construction of many transportation routes (and associated service roads) to and from the Project, as well as the construction of transmission lines to and from the Project, including construction of:
- 35.1. a conveyer belt to transport coal from the neighbouring Temo mine - the plant will require 12 500 tonnes of coal per day;⁵³
 - 35.2. the proposed transmission lines with a capacity of 400 kV.⁵⁴ Authorisations will have to be provided for the construction of these transmission lines, which “*may potentially affect*” a number of farm portions, directly.⁵⁵ The three proposed transmission line options: Spitzkop Line (400 kV) with a total length of 39,7 km, Steenbokpan Line (400 kV Alternative) with a total length of 50,6 km, and Canada Line (132 kV), which will connect to the proposed future distribution network with a total length of 8,3 km;⁵⁶
 - 35.3. a rail loop. The Project location is within a proposed rail loop.⁵⁷ However, the rail loop itself does not form part of the environmental authorisation granted. The Updated EIR indicates that “*should the rail loop go ahead, the*

⁵¹ EIR June 2016 page 48.

⁵² EIR June 2016 page 50.

⁵³ EIR June 2016 page 34.

⁵⁴ EIR June 2016 page 34.

⁵⁵ EIR June 2016 pages 44 – 46.

⁵⁶ EIR June 2016 page 47.

⁵⁷ EIR June 2016 page 47.

construction of the power plant and associated infrastructure needs to be considered. The proposed rail loop will eventually be utilised to transport export-grade coal from the Temo Mine to the Richards Bay Coal Terminal" (own emphasis).⁵⁸ Crucially, it is unknown whether the rail loop will go ahead and this will have an impact on the location of the Project. This is a significant concern that should be considered.

36. In conjunction with the proposed power station project, it is proposed that a mine will be developed to supply the power plant with coal necessary for the Project.⁵⁹ This is a pivotal aspect of the Project, yet Temo holds only a Mining Right and an Environmental Authorisation for the mining-related activities, but the Updated EIR does not specify whether Temo has been granted the further authorisations (such as a water use licence) needed in order to commence mining operations.⁶⁰
37. The nature of the location, when considered with the characteristics of the Project as summarised above, gives rise to many of the grounds for appeal against the Authorisation. In this regard, the Project falls within a water-stressed area, with hydrological and biodiversity sensitivity. The sensitive nature of this environment and the environmental implications that arise pursuant to the Project are more comprehensively detailed below.

Location of the Project

38. The site of the project ("the Project site") is farm Duikerpan 249Q in the Waterberg District, which is in the Lephalale Local Municipality, which falls under the Waterberg District Municipality in the Limpopo province. There are also proposed transmission line routes which cross through 64 farm portions in order to connect the proposed power station to the national grid.⁶¹ The project site falls within the Waterberg coalfields.

⁵⁸ EIR June 2016 page 47.

⁵⁹ EIR June 2016 page 46 – 47.

⁶⁰ EIR June 2016 page 47.

⁶¹ EIR June 2016 page 40.

39. It is noted that the Temo Coal Mine, proposed by Temo, adjacent to the proposed project, has been identified to have the appropriate grade coal (lower bench coal) to be used for fuelling the Namane power station.⁶² It is further proposed that the Temo Coal Mine will produce approximately 15 million tonnes (Mt) of Run of Mine (RoM) coal per year, and that the Project will require between 3.0 and 3.7 Mt of coal per year.⁶³ Temo and Namane are both 100% owned by Namane Resources (Pty) Ltd.
40. The site is located 44.9km west-north-west of Lephalale, which is in close proximity to the Grootgeluk mine. The nearest settlement to the site is Steenbokpan, which is 10km south of the project area.
41. Two Eskom coal-fired power stations, namely Medupi power station (in the process of being commissioned) and Matimba power station, are some 30 km of the project site. In addition, numerous other mining and power generation projects – including the 1200 MW Thabametsi IPP power station (a preferred bidder under the first bid window of the CBIPPPP) - are proposed within the broader area, as the project site is located within the Limpopo Coal, Energy and Petrochemical cluster, the Lephalale Local Municipality Industrial Corridor and the Waterberg coalfields. Other IPP projects proposed for the area - of which the Appellants are aware - include: Boikarabelo 260 MW coal-fired power station, in Lephalale (already authorised); Tshivhaso 1200 MW coal-fired power station, in Lephalale (authorisation decision awaited); Mutsho 660 MW coal-fired power station, in Vhembe District Municipality; and Waterberg Power Company 600 MW coal-fired power station in Lephalale.
42. The towns or settlements of Steenbokpan, Stockpoort, Dovedale (Botswana), and Kudumatse (Botswana) are in close proximity, all located less than 25km from the project site. The closest major town is Lephalale, which is less than 50km from the project site. It is recorded that the Lephalale Local Municipality has an average population density of 4.7 people per km².

⁶² EIR June 2016.

⁶³ EIR June 2016 page 51.

THE ENVIRONMENTAL IMPACTS

The EIA Process

43. The Authorisation granted is an Integrated EA issued in terms of NEMA and the EIA Regulations, 2014, as well as NEMWA, read with Government Notice 921 of 2013, for the establishment of the 660 MW Project and associated infrastructure.
44. The Appellants submit and place on record that the EIA Regulations, 2014 do not give effect to the Constitutional right to a fair process.⁶⁴ This is so because EIA Regulations, 2014 contain woefully inadequate time periods for conducting the scoping and environmental impact assessments for a proposed project and for public participation and comment by I&APs. Effectively, these regulations exclude any comprehensive assessment of environmental impacts, as well as any meaningful participation by I&APs. They merely pay lip service to what has now become a redundant EIA process. No accurate assessment of environmental impacts can be conducted in the short periods allowed in the EIA Regulations, 2014 and this is evidenced by the significant lack of data, errors and ambiguities contained in so many EIAs for projects, which follow the process of the EIA Regulations, 2014. Further submissions in this regard, and in relation to the adequacy of the Appeal Regulations, 2014, are made below.
45. The Authorisation permits the undertaking of environmental activities listed under the EIA Regulations, 2014, as well as waste management activities listed under GN 921, GG37083 of 29 November 2013. Thus the activities authorised pertain to both environmental and waste management activities pursuant to section 24L(1) of NEMA, which makes provision for the issuing of an integrated EA, and section 24L(2) of NEMA, which stipulates that an integrated EA may only be issued if “*the relevant provisions ... [NEMA] and the other law or specific environmental management Act have been complied with*”.

⁶⁴ Section 33 of the Constitution.

46. Section 24 falls within Chapter 5 of NEMA which provides for an integrated environmental management system to *inter alia* streamline the authorisation process and promote the integration of the NEMA Principles in making all decisions which may have a significant impact or effect on the environment.⁶⁵
47. Similarly, section 44(1) of NEMA regulates co-operative governance in WML applications and provides for the issuing of an integrated licence in this regard.⁶⁶
48. The First Appellant attended a public meeting on 6 May 2016, raising various concerns with the Project, including, *inter alia*, that: the cumulative effects of the Project needed to be considered; that there is not sufficient water for the Project to operate; that the local community will be negatively impacted by the Project; and that air quality in the area is a serious concern. The Appellants note, however, that the only concern contained in the Updated EIR as having been raised by the First Respondent was “*Cumulative impacts need to be looked at. It was also requested that the Thabametsi project to do a climate change study*”. The Updated EIR records the following response to this comment: “*The Cumulative Impacts for the IPP have been included in Section 12 of the EIR. Thabametsi done not form part of this Project and therefore no commitments can be made on behalf of Thabametsi.*”⁶⁷ This does not accurately reflect the full array of concerns raised by the First Appellant, as indicated above.

Impacts on Water Sources and Scarcity

49. The Authorisation states that Namane will require “offstream storage of water” in ponds with a combined volume of 96 000 m³. It also states that there will be a daily throughput of 1.9 million m³ per day for the Project’s water treatment facility.⁶⁸ These are significant quantities of water. Of more concern, however, is that it is not clearly

⁶⁵ Section 23(2)(a) NEMA.

⁶⁶ Section 44(1) provides that “*for the purposes of issuing a licence for a waste management activity, the licensing authority must as far as practicable in the circumstances co-ordinate or consolidate the application and decision-making processes contemplated in this Chapter with the decision-making process in Chapter 5 of [NEMA] and other legislation administered by other organs of state, without whose authorisation or approval or consent the activity may not commence, or be undertaken or conducted*”.

⁶⁷ EIR June 2016 page 282.

⁶⁸ Listed activities GN R 984, item 25 and GN R983, item 13 of the Authorisation.

stated anywhere in the Updated EIR how much water the Project proposes to use in total on a daily and annual basis. Under the heading of 'Water Requirement and Availability' in the Updated EIR, it simply states that “[c]onsidering constraint in availability of water in the Waterberg region, air cooled condenser and fin fan coolers for all boilers, as well as turbine coolers are proposed thereby reducing water consumption to the minimum ...”.⁶⁹ The Water Balance Report, Appendix K to the Updated EIR, states that “[c]urrently there is no information on the amount of water required to operate the two plants (the Temo mine and the IPP power plant) mentioned. As shown in Table 3-1, the power plant water demand is assumed to be 1 500 m³/d... Temo Coal is planning to produce approximately 14Mt of ROM per annum. The water demand is therefore estimated to be 15 300 m³/d... The water requirement of the power plant and mine process is one of the largest volumes required by the Project and it is recommended to update the water balance once the actual water demands are made available.”⁷⁰

50. This is unacceptable: it is submitted that the impacts on water resources cannot properly be assessed if it is not known how much of the area’s valuable and scarce water the Project proposes to use.
51. The water needs of the towns, industries and mines in the Project area are predominantly supplied by the Mokolo Dam and Crocodile River. The Waterberg is known as a water-stressed area, with Lephalale, in particular, suffering from a water deficit.⁷¹
52. The Mokolo and Crocodile Water Augmentation Project (MCWAP) is a project initiated by the Limpopo Regional Office of the Department of Water and Sanitation (LDWAS) to supply industry and residents in the Waterberg district with water. It entails the phased construction of two bulk raw water transfer systems, as well as associated infrastructure, to meet power station, mines, and domestic water demands.

⁶⁹ Page 58, Update EIR.

⁷⁰ Appendix K to the Updated EIR, Water Balance Report, pages 9 – 10.

⁷¹ <http://dialogue.co.za/water-together-sustainability-review-issue-12-may-2013>.

53. Phase One of the MCWAP (“MCWAP 1”) deals with increased transfer capacity from Mokolo Dam to Eskom’s Matimba and Medupi power stations, Lephalale Local Municipality and Exxaro’s Grootegeluk coal mine. The second phase of the MCWAP project (“MCWAP 2”) will supply additional water to the area from the Crocodile River, thereby reducing the deficit for development. This phase is planned to include the establishment of a transfer scheme from the Crocodile River (West) at Vlieëpoort near Thabazimbi to the Lephalale area,⁷² and it is envisaged that MCWAP 2 will commence supplying water in November 2020.⁷³
54. This Project will fall within the ambit of the MCWAP, although the Authorisation and the Updated EIR fail to make clear where the intended water for the Project will ultimately be sourced.
55. It is noted that the requisite environmental impact assessment for MCWAP 2 has not yet commenced, apart from a background information document circulated for comment in May 2016. In the circumstances, given the various steps that still need to be taken before MCWAP 2 can commence, it is unlikely that the envisaged deadline for completion by the year 2020 will be met.
56. Furthermore, the Updated EIR acknowledges constraints in water availability, and indeed water scarcity, in the Waterberg region. It indicates that “*based on water scarcity, dry-cooling is the preferred cooling method for this project*” (own emphasis).⁷⁴ It goes on to outline three basic cooling technology alternatives, namely once-through cooling, which requires a large body of water; wet cooling, which requires a large amount of “makeup” water; and dry cooling, which also still requires a fair amount of water.
57. The Updated EIR first states “*for the purpose of this project, indirect dry cooling will be used*” and then in the next paragraph it states “*it is likely that dry cooling will be the preferred method of cooling for this Project*” (own emphasis).⁷⁵ The type of

⁷² Pages 191 -192 of Thabametsi coal-fired power station FEIR, May 2014 – available on request.

⁷³ <http://www.infrastructurene.ws/2014/10/17/water-project-awaits-financial-guarantees>.

⁷⁴ EIR June 2016 page 58.

⁷⁵ EIR June 2016 page 58.

cooling has a direct and significant impact on the amount of water used by the Project, yet the Updated EIR is vague and unclear in specifying the type of cooling that will be used. In an area that is already experiencing water scarcity, the consequences of the type of cooling used are significant, and the Authorisation should not have been granted in circumstances where it is uncertain as to the type of cooling the Project will use, and thus the extent of the Project's impact on already scarce water resources in the area.

58. The Project site has a total of 11 pans, totalling 40.7 ha, that fall within 500m of the proposed infrastructure footprint.⁷⁶ Three of these pans are designated as National Freshwater Ecosystems Priority Areas (NFEPA) wetlands. While the Updated EIR proposes a buffer of 100 m around the wetlands,⁷⁷ it also indicates that *“wetlands are highly susceptible to the degradation of quality and a reduction in quantity as a result of anthropogenic resource use activities, surface development and landscape management practices that alter their hydrological regime impacting these systems”*.⁷⁸ With this in mind, a coal-fired power station and associated infrastructure built within 500m of such highly susceptible areas will necessarily impact upon them and cause a reduction in their quality and quantity.
59. Table 7-22: Summary Results of the Ecological Importance and Sensitivity of the wetlands deems seven of the eleven pans (two of which were not assessed) to be of high ecological importance and sensitivity.⁷⁹ This high ecological importance and sensitivity can be linked to the pans' *“significant role in maintenance of biodiversity, which is attributed to the importance of the intermittent open water accumulation in an arid environment with no perennial rivers crossing the study area. These temporary wetlands are critical for the breeding of many faunal species that rely on these water sources each season”*⁸⁰ (own emphasis). Yet, the Updated EIR states that the generic 100 m buffer will suffice to ensure protection of the wetlands. It further states that the 100 m buffer constitutes best practice. The Appellants point

⁷⁶ EIR June 2016 page 96.

⁷⁷ EIR June 2016 page 97.

⁷⁸ EIR June 2016 page 98.

⁷⁹ EIR June 2016 page 100 – 101.

⁸⁰ EIR June 2016 page 101.

out that the 100 m buffer constitutes a minimum standard and should not be construed as best practice.⁸¹

60. Furthermore, the 100 m buffer between the Project and the wetlands is allegedly taken from the Regulations on the Use of Water for Mining and Related Activities aimed at the Protection of Water Resources Regulation 704 of the National Water Act (GN 704), which indicates that activities with a potential impact on a water resource and within 100 m of that resource or floodline, require a licence.⁸² The Updated EIR, however, states that some of the wetlands are seasonal. If this is the case, then they could potentially expand seasonally and decrease the buffer to less than the 100 m bare minimum. It is clear that by adopting the minimum distance for the buffer, the Project has improperly failed to take into account potential changes to the pans and water resources over time and seasonally; it has also failed to consider the polluting effects of the Project on these sensitive water resources and the potential impact that decreased groundwater levels may have on the pans and wetlands.
61. In any event, the Project will still require a water use licence which could conceivably alter the 100 m buffer, thereby significantly altering the proposed layout of the Project. It is submitted that without this information, the First Respondent should not have granted the Authorisation.
62. In addition to the abovementioned pans, the Limpopo River is the primary drainage feature associated with the proposed project. It is only 10 km away from the Project area, which could be impacted by runoff via tributaries, as well as general increased pollutants in the atmosphere.
63. Although the updated EIR claims that all the runoff from the proposed power plant will flow in a direction that entails no possibility of contaminating pans or rivers, it further states that both the dust from the ash dump and the power plant have “*the potential to deposit into pans depending on wind direction*” and particularly in a pan

⁸¹ EIR June 2016 page 97.

⁸² EIR June 2016 page 98.

that is classified as a moderately sensitive one as it “*has ecological importance and can provide water to animals in the area*”.⁸³ Figure 7–13 indicates that the ash dump will be adjacent to pans on Farm Duikerpan, Nieuw Holland and Twistpan.⁸⁴

64. The Updated EIR does not indicate where the 1.9 million cubic meters per day to generate deionised water for the production stream to power the gas turbines;⁸⁵ will be obtained, nor the water amounts that will be contained in the off-stream storage of water facility in the form of an evaporation pond, storm water collection pond and raw water reservoir(s), the combined surface area of which is 4 ha and combined volume of which is approximately 96 000 square meters.⁸⁶ It is likely that it will need to be obtained from an external source, such as a river; yet the document does not plan for this or for the potential impacts that this may have.
65. The Project will have significant implications on water quality and quantity in an already water-scarce area. The Updated EIR fails to specify the exact or estimated amounts of water that will be needed for the Project, and is therefore vague. The Updated EIR also provides no explanation on the prospects of successfully obtaining a water use licence for the use of water required by the proposed coal-fired power station in an already water-scarce area or for the Project infrastructure’s proximity to wetlands.
66. Although the Updated EIR makes provision for water quality monitoring, this is lacking in clarity and fails to provide adequate information to the First Respondent regarding enforceable detail.
67. From a water perspective alone, South Africa does not have the capacity or the resources for a project such as this. The area for the proposed Project is already struggling with water constraints for existing developments, and this will be exacerbated by any reduction in water quality, especially from acid mine drainage resulting from the mining aspect of this project.

⁸³ EIR June 2016 page 120.

⁸⁴ EIR June 2016 page 137.

⁸⁵ Listed activity GN R. 984 Item 25, in the Authorisation.

⁸⁶ Listed activity GN R. 983 Item 13, in the Authorisation.

68. We point out that the World Economic Forum's 2015 Global Risk Report has identified the water crisis as the world's greatest risk. The planet is forecast to face a 40% shortfall in water supplies in 15 years, owing to population growth, urbanisation, and increased demand for food production, energy and industry. Climate change also increases water-related risks. South Africa is ranked among the world's 30 driest countries.⁸⁷
69. The analysis of groundwater, surface water, aquatic ecology, and wetlands in the Updated EIR contain no finite conclusions about the impact or potential impact of the Project on the water systems in the area. When considered in the context of the Waterberg being recognised as a water-scarce area, the vagueness of the Updated EIR necessarily indicates that there was insufficient information available for the First Respondent to come to a rational decision when deciding to grant the Authorisation. For this reason, this appeal should succeed.
70. The above notwithstanding, the First Respondent fails to engage with the environmental implications that arise from the significant water shortage and hydrological sensitivity in the region. It is submitted that the Project simply cannot go ahead in these circumstances of dire water shortage – quite apart from the other fatal flaws in the Updated EIR.

Heritage Impacts

71. Apart from the pans or wetlands that have been identified at the Project site, the area is also important in terms of some archaeologically-significant aspects to the area. The South Africa Heritage Resources Agency (SAHRA) has indicated that "*the development is located in a very high to moderate palaeontological sensitive zone, as such SAHRA will require a Palaeontological Impact Assessment*"⁸⁸ SAHRA states further that while the recommendations in the Historical Impact Report are accepted, the following studies "*are still required for the proposed Project: A*

⁸⁷ See <http://www.engineeringnews.co.za/article/creamer-media-publishes-water-2015-a-review-of-south-africas-water-sector-research-rport-2015-11-09>

⁸⁸ See <http://www.sahra.org.za/sahris/node/364732>

palaeontological impact assessment needs to be conducted for the project area that will assess the potential impacts to fossiliferous rocks. The assessment must be conducted by a suitably qualified palaeontologist. If Steenbokpan power line route alternative is chosen then no further mitigation is needed as it has the least impact on the landscape. If the Spitzkop alternative is chosen then the identified archaeological sites will need to be mitigated in Phase II after obtaining a permit from SAHRA. SAHRA suggests that Steenbokpan transmission line alternative is chosen as it has less cumulative impacts. SAHRA still needs a final walk down of the 400kV transmission power line once it is finalised to be conducted before any construction or excavation activities commence. A report of the walk down must be submitted to SAHRA for commenting.”

72. Despite this, it is not made clear in the Updated EIR whether SAHRA has been approached, or what the impact will be on the historical artefacts present. A palaeontological impact assessment has not been submitted. This, the Appellants submit, is a further basis on which the Authorisation should have been refused.

Air Quality Impacts

73. The site of the Project falls within the Waterberg-Bojanala Priority Area (WBPA).⁸⁹ Section 18(1) of AQA provides for the declaration of an area as a priority area if the MEC or Minister reasonably believes that:
- 73.1. ambient air quality standards (AAQS) 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
 - 73.2. the area requires a specific air quality management action to rectify the situation.⁹⁰

⁸⁹ Declared in terms of section 18(1) AQA by Government Notice 495 of 2012.

⁹⁰ s.18(1).

74. A priority area air quality management plan (AQMP) must be developed to: co-ordinate air quality management (AQM) in the area; address air quality issues; and provide for its implementation by a committee representing relevant role-players.⁹¹
75. The aim of declaring priority areas is to target limited AQM resources to the areas that require them most.⁹² Once an AQMP is implemented, air quality in the area should - within agreed timeframes - be brought into sustainable compliance with AAQS.⁹³ AQA provides⁹⁴ that the Minister may withdraw the declaration of an area as a priority area if the area is in compliance with AAQS for a period of at least two years.
76. The air quality within the Waterberg-Bojanala area, and consequently within the project area, is a matter of serious concern, with industries, including coal-fired power stations, emitting pollutants such as SO₂, NO_x and particulate matter (PM). Coal-fired power stations also emit significant quantities of other harmful pollutants, such as carbon dioxide (CO₂) (which is also a greenhouse gas (GHG) that contributes directly to global warming) and mercury.
77. The health impacts caused by some of the pollutants emitted by coal-fired power stations are the following:
- 77.1. SO₂ and PM are known to cause asthma⁹⁵ and other respiratory problems, including reduced lung function in children;⁹⁶
- 77.2. short and long-term exposure to fine PM (PM_{2.5}) results in increases in both mortality (deaths) and morbidity (disease). Recent evidence links long-term

⁹¹ s.19(1)-(5), (6)(b).

⁹²“Priority areas under the Air Quality Act” Engineering News Online 3 June 2011, available at <http://www.engineeringnews.co.za/print-version/priority-areas-under-the-air-quality-act-2011-06-03>.

⁹³ “Deputy Minister of Water and Environmental Affairs launches Waterberg-Bojanala priority area” 20 July 2012, available at <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=29236&tid=77119>.

⁹⁴ S.19(5).

⁹⁵ WHO Air Quality Guidelines Global Update 2005, 2006.

⁹⁶ P143, ‘Multiple Threats to Child Health through Fossil Fuel Combustion: Impacts of Air Pollution and Climate Change’, available at <https://ehp.niehs.nih.gov/wp-content/uploads/125/2/EHP299.alt.pdf>.

- exposure to PM_{2.5} to several health outcomes, including atherosclerosis, adverse birth outcomes and childhood respiratory disease;⁹⁷
- 77.3. exposure to PM is known to be carcinogenic to humans and associated with increased cancer incidence, especially cancer of the lung;⁹⁸
- 77.4. NO₂ exposure can cause serious damage to the tissues of the upper respiratory tract, fluid build-up in the lungs and death at high exposure levels;⁹⁹ and
- 77.5. coal naturally contains mercury, and coal-burning is the largest source of human-caused mercury emissions. When coal is burned, roughly two-thirds of its mercury is released into the air as gas or particles,¹⁰⁰ with the remaining third being retained in a toxic residue called coal ash. Airborne mercury can remain aloft for six months to two years before falling to the ground in precipitation, dust, or simply due to gravity. Mercury deposition rates vary greatly depending on many factors, but coal-fired power plants have been shown to cause local mercury pollution hotspots in regional waterbodies, with fish and animals responding rapidly and proportionally to local sources of mercury.¹⁰¹ In several studies, the highest levels of airborne mercury from power plants deposited to soils within five kilometers of the plants.¹⁰² Trace amounts of mercury can contaminate large bodies of water and remain in the soil for decades. For example, the equivalent of one gram of mercury deposited from the atmosphere into a 20-acre lake each year can make the fish unsafe to eat. Once in the ecosystem, mercury naturally converts to methylmercury, a highly toxic compound that builds up in organisms and increases in concentration with each level of the food chain.¹⁰³ Emissions of mercury and lead are established as having impacts

⁹⁷ REVIAP Study Report, WHO, 2013. Available at http://www.euro.who.int/_data/assets/pdf_file/0004/193108/REVIHAAP-Final-technical-report-final-version.pdf?ua=1.

⁹⁸ <http://www.who.int/mediacentre/factsheets/fs313/en/>.

⁹⁹ Physicians for Social Responsibility, *Coal's Assault on Human Health*, (November 2009), p. 9, <http://www.psr.org/assets/pdfs/coals-assault-executive.pdf>.

¹⁰⁰ V.K. Rai et al., *Mercury in Thermal Power Plants- A Case Study*, *Int. J. Pure App. Biosci.*, 1 (2): 31-37 (2013), p. 33.

¹⁰¹ Hubbard Brook Research Foundation, *Mercury Matters* (2007) at 3 and 9.

¹⁰² Jose Rodriguez & Nikos Namos, *Soil as an archive of coal-fired power plant mercury deposition*, *Journal of Hazardous Materials* (May 5, 2016, published online January 13, 2016).

¹⁰³ United States National Parks Service, *Effects of Air Toxics/Mercury on Ecosystems*, <http://www.nature.nps.gov/air/aqbasics/mercury.cfm>, (accessed January 30, 2016).

on neurodevelopment, leading to reduced IQ in the population that persists from youth to old age. Linked to this effect, is a reduction in the productivity of the labour force. According to a 2014 report on the health impacts and social costs of Eskom's coal-fired power stations, Eskom's current mercury emissions are associated with the loss of 45,000 IQ points each year.¹⁰⁴

78. The WBPA AQMP¹⁰⁵ goals include:

- 78.1. ambient concentrations of air pollutants comply with the national AAQS (NAAQS) in the WBPA as a result of emission reductions: this goal focuses on emission control and reduction across all sectors to ensure compliance;
- 78.2. cooperative governance in the WBPA promotes the implementation of the AQMP: this goal aims to address the shortcomings in cooperative governance by ensuring the appropriate structures and mechanisms are in place at the respective levels of governance for effective implementation of the AQMP; and
- 78.3. air quality decision making in the WBPA is informed by sound research: this goal aims to ensure appropriate research establishes the health baseline, which improves the Threat Assessment and prioritises emission reduction interventions to inform AQM and planning in the WBPA.¹⁰⁶

79. Throughout the DEA WBPA AQMP and Threat Assessment, the risk to ambient air quality through the planned expansion of energy-based projects and coal mining in the region is recognised. *“The AQMP for the WBPA aims to address the gaps and issues identified in the baseline characterisation, and to address the challenges posed to air quality and the management thereof by the planned development of energy-based projects in the region. The overall objective of the WBPA AQMP recognises that ambient air quality currently does not comply with NAAQS*

¹⁰⁴ P15, http://cer.org.za/wp-content/uploads/2014/02/Annexure-5_Health-impacts-of-Eskom-applications-2014-final.pdf.

¹⁰⁵ DEA WBPA AQMP and Threat Assessment, June 2015, available at <http://www.saaqis.org.za/Downloads.aspx?type=AQ>.

¹⁰⁶ Page xvi WBPA AQMP.

throughout the Priority Area, and the proposed expansion of energy-based projects in the WDM and Botswana poses a risk to future air quality.”¹⁰⁷

80. The threat assessment goes on to state that:

“[i]n 2020 the Thabametsi Power Station becomes operational with three new IPP power stations (Boikarabelo, Unknown IPP and Greenfields), supported by four new coal mines. The total SO₂ emissions increase from 2015 by 236 131 t/a, NO_X by nearly 122 000 t/a and PM₁₀ by 2 649 t/a.”¹⁰⁸

81. The Project presumably falls into the category of “unknown IPP” of the three new IPP power stations.

82. An additional coal-fired power station, such as the Project, with all of its significant and harmful atmospheric emissions, will clearly be contrary to the AQM intentions for the WBPA and the goals of the AQMP.

Climate Change Impacts

83. In a recent High Court judgment in the case of *Earthlife Africa Johannesburg / the Minister of Environmental Affairs & Others [2017] JOL 37526 (GP)* (“the Thabametsi case”), it was ordered that a climate change assessment is a necessary component of an EIA for a coal-fired power station, in this case the Thabametsi power station.

84. The court confirmed the significance and relevance of climate change impacts of coal-fired power stations and the need to adequately assess those impacts before a decision can be made as to whether a coal-fired power station can be authorised.

¹⁰⁷ Page xv WBPA AQMP.

¹⁰⁸ Page 167 WBPA AQMP.

85. Coal-fired power stations are the single largest source of GHG emissions in South Africa, and it follows therefore that the Project would have significant impacts in terms of climate change.
86. Climate change impacts are much broader than simply GHG emissions. Although GHG emissions are a very relevant component and contributor to climate change impacts, the impacts themselves include: increased water scarcity (through decreases in precipitation); increased extreme weather events such as droughts and flooding; and increased temperatures.¹⁰⁹ An assessment of such impacts must consider not only the GHG emissions of the proposed activity and the contribution it will make to climate change through its emissions, but it must also consider the extent to which the activity will increase the country's and the surrounding area's vulnerability to climate change by, for example, utilising and polluting limited water. It must also consider how the activity itself will be affected by the impacts of climate change over its anticipated lifespan (sometimes referred to as its resilience to climate change).
87. The court in the Thabametsi case held, *inter alia*, that:
- 87.1. “[c]limate change poses a **substantial risk to sustainable development in South Africa**. The effects of climate change, in the form of rising temperatures, greater water scarcity, and the increasing frequency of natural disasters pose substantial risks. Sustainable development is at the same time integrally linked with the principle of intergenerational justice requiring the state to take reasonable measures protect the environment “for the benefit of present and future generations” and hence adequate consideration of climate change. **Short-term needs must be evaluated and weighed against long-term consequences**” (emphasis added);¹¹⁰
- 87.2. “coal-fired power stations ... **not only contribute to climate change but are also at risk from the consequences of climate change**. As water

¹⁰⁹ P8, National Climate Change Response White Paper, available at [https://www.google.co.za/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=national+climate+change+response+white+paper&*](https://www.google.co.za/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=national+climate+change+response+white+paper&*.).

¹¹⁰ Para 82.

scarcity increases due to climate change, this will place electricity generation at risk, as it is a highly water intensive industry” (emphasis added);¹¹¹

87.3. The proposed power station is likely to “*aggravate the impact of climate change in the region by contributing to water scarcity, raising in turn questions about the viability of the power station over its lifetime*”;¹¹² and

87.4. ***Policy instruments developed by the Department of Energy cannot alter the requirements of environmental legislation for relevant climate change factors to be considered.*** (Emphasis added)¹¹³

88. The Thabametsi case is the first court case in South Africa, where consideration was given to, and a ruling was made on, the significance of the impacts of climate change for South Africa. Internationally, a plethora of litigation is arising wherein governments are being held liable for not doing enough to protect their people from the harmful impacts of climate change or for taking sufficient action to reduce GHG emissions.¹¹⁴

89. It follows from this that Namane is also subject to the same requirement in terms of a climate change assessment. The failure to conduct such assessment makes a further reason why the Authorisation should not have been granted.

STATUS OF OTHER AUTHORISATION PROCESSES

90. The activities that form part of the project will have impacts which are regulated by specific environmental legislation in addition to NEMA, these being NEMWA, AQA and the National Water Act, 1998 (NWA). It is therefore legally required that the provisions and licensing processes provided for in this legislation be fully complied with, in addition to the processes prescribed by NEMA.

¹¹¹ Para 25.

¹¹² Para 44.

¹¹³ Paras 95 and 96.

¹¹⁴ See ‘Climate Justice: The International Momentum Toward Climate Litigation’, Boom, Richards and Leonard. Available at <https://www.boell.de/sites/default/files/report-climate-justice-2016.pdf>. See also <https://www.csmonitor.com/Environment/Inhabit/2017/0329/Courts-now-at-front-line-in-battles-over-climate-change>.

91. Chapter 5 of NEMA provides for an integrated environmental management system to, *inter alia*, streamline the authorisation process and promote the integration of the principles of environmental management set out in section 2, into the making of all decisions which may have a significant effect on the environment.¹¹⁵ As indicated, section 24L(1) of NEMA makes provision for the issuing of an integrated environmental authorisation, and section 24L(2) stipulates that an integrated environmental authorisation may only be issued relevant provisions or other law or specific management Acts have been complied with.
92. In addition to the environmental authorisation addressed herein, Namane will be required to obtain a water use licence (WUL) in terms of NWA and an atmospheric emission licence (AEL) in terms of AQA, in order to undertake many of the activities envisaged as part of the project. This is acknowledged in the Authorisation.¹¹⁶ An activity requiring an AEL is also a listed activity in terms of the EIA Regulations, 2014, which means that an EA is also required. The Appellants reiterate that they seek the opportunity to participate in all of these processes.

The Water Use Licence (WUL)

93. The Authorisation indicates that a WUL will be required “*for ash handling and disposal systems and ash dump; ash dump runoff ponds; water storage reservoir for raw water supply and evaporation ponds.*”¹¹⁷
94. Given the serious water constraints and other water-related concerns highlighted in this appeal, it is submitted that granting the Authorisation and a WUL would be contrary to the NWA objectives of ensuring that the nation’s water resources are protected, used, developed conserved, managed and controlled in a way that meets the basic human needs of present and future generations, promotes equitable

¹¹⁵ Section 23(2)(a) NEMA.

¹¹⁶ Integrated Environmental Authorisation 28 February 2017.

¹¹⁷ Integrated Environmental Authrisation, 28 February 2017.

access to water and, inter alia, efficient, sustainable and beneficial use of water in the public interest.¹¹⁸

95. As far as the Appellants are aware, an application for a WUL has not yet been submitted. The DWS Guidance Note regarding water availability and water use licensing for the CBIPPPP, June 2015, envisages that only once a project is appointed a preferred bidder must a WUL application be submitted.¹¹⁹ However, it is required, in terms of the Guidance Note, that “*Bidders engage with the relevant Regional DWS / CMA (catchment management agent) Office prior to submission of a Bid Response to ensure that Bidders are informed of general and any possible site specific conditions that may be applicable to their proposed sites.*”¹²⁰ The Appellants submit that they must be updated and informed of this process as public participation is required and an important component of the WUL application process in terms of the Guidance Note.
96. The Appellants reserve their rights to challenge any WUL that is granted. The Appellants submit that no WUL application may be processed until the appeal is finally disposed of.

The Atmospheric Emission Licence (AEL)

97. The Authorisation states that an AEL will be required for the Power Plant.¹²¹ As far as the Appellants are aware, an AEL application has not yet been submitted.
98. In terms of section 40(3) AQA, “*If the decision on the relevant application for an environmental authorisation has been made in terms of section 24 of the National Environmental Management Act, the licensing authority must decide the application within 60 days of the date on which the decision on the application for the environmental authorisation has been made.*” As set out above, an EA is also required for an AEL.

¹¹⁸ Section 2(a), (b) and (d) NWA.

¹¹⁹ P6 – 7, DWS CBIPPPP Guidance Note.

¹²⁰ P6, DWS CBIPPPP Guidance Note.

¹²¹ Integrated Environmental Authorisation, 28 February 2017.

99. There is an obligation, in terms of section 37(3)(a) of the AQA, that Namane must notify all I&APs of an application for an AEL. The relevant section requires an applicant to “*take appropriate steps to bring the application to the attention of relevant organs of state, interested persons and the public.*” In addition, section 38(3)(b)(iii) of the AQA requires IAPs to be afforded a “*reasonable period*” in which to submit comments on applications. This process is required in addition to the environmental authorisation.
100. Given the non-compliance with NAAQS in the WBPA, and the threats identified by the WBPA AQMP, the Appellants strongly dispute that it would be appropriate to grant an AEL to Namane.
101. The Appellants submit that no AEL application can proceed until the present appeal is fully disposed of. It reserves its right to challenge any AEL that is granted.

THE DECISION

102. The decision to grant the Authorisation was made by Mr Sabelo Malaza, Chief Director: Integrated Environmental Authorisation, Department of Environmental Affairs in terms of NEMA, NEMWA, and the EIA Regulations, 2014. The decision authorises *inter alia* the following listed activities:
- 102.1. development of water supply and storage infrastructure;¹²²
- 102.2. development of pipelines to water-holding facilities (ponds or dams) or a water treatment plant, in excess of 1000;¹²³
- 102.3. construction of an off-stream storage of water facility in the form of an evaporation pond, storm water collection pond and raw water reservoir(s), the combined surface area of which is 4ha and combined volume of which is approximately 96 000 square meters;¹²⁴
- 102.4. diesel storage facilities;¹²⁵

¹²² GN R. 983 Item 9.

¹²³ GN R. 983 Item 10.

¹²⁴ GN R. 983 Item 13.

¹²⁵ GN R. 983 Item 14.

- 102.5. a permanent access road;¹²⁶
- 102.6. development and related operation of facilities or infrastructure for the generation of electricity 660 MW of power which will be fuelled by lower grade coal sourced from a neighbouring mine;¹²⁷
- 102.7. an ash handling and disposal systems and ash dump, ash dump runoff ponds, water storage reservoir for raw water supply and evaporation ponds (activities which require a WUL);¹²⁸
- 102.8. development of coal transportation facilities from the neighbouring Temo mine, which will take the form of a conveyer belt in order to transport 12 500 tonnes per day, required by the proposed Plant;¹²⁹
- 102.9. construction of a 400 kV capacity transmission line;¹³⁰
- 102.10. clearing of 160 ha of vegetation, as well as the access road, on the site prior to commencing construction;¹³¹
- 102.11. construction of a water treatment facility, with a daily throughput of 1.9 million cubic meters per day, to generate deionised water for the production stream to power the gas turbines;¹³²
- 102.12. activities which require an AEL;¹³³
- 102.13. storage of hazardous waste in the form of brine generated by the deionised water treatment plant, which will be disposed of on the ash dump;¹³⁴
- 102.14. storage of coarse ash on the ash dump site;¹³⁵
- 102.15. construction of facilities for waste management activities listed above;¹³⁶
and
- 102.16. storage of turbine oil.¹³⁷

¹²⁶ NG R. 983 Item 24(ii).

¹²⁷ GN R. 984 Item 2.

¹²⁸ GN R. 984 Item 6.

¹²⁹ GN R. 984 Item 7 (iii).

¹³⁰ GN R. Item 9.

¹³¹ GN R. 984 Item 15.

¹³² GN R. 984 Item 25.

¹³³ GN R. 984 Item 28.

¹³⁴ GN R. 921 Category B Activity 1.

¹³⁵ GN R. 921 Category B Activity 7.

¹³⁶ GN R. 921 Category B Activity 10.

¹³⁷ GN R. 921 Category C Activity 2.

103. In the Reasons for the Decision, the First Respondent indicates that the following conclusions were reached:

“a) The need for the proposed project stems from the provision of electricity to the national grid in terms of the Coal Baseload Independent Power Producers Procurement Programme (CBIPPPP) as required by the Department of Energy.

b) The identification and assessment of impacts are detailed in the EIR dated June 2016; and sufficient assessment of the key identified issues and impacts have been completed.

c) The procedure followed for impact assessment is adequate for the decision-making process.

d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.

e) A sufficient public participation process was undertaken and the applicant is satisfied the minimum requirements as prescribed in the EIA Regulations, 2014, for public involvement.”¹³⁸

104. The key factors considered in making the decision are cited as being:

104.1. *“The information contained in the EIR dated June 2016;*

104.2. *The comments received from the Directorate: Authorisations & Waste Disposal Management; Directorate: Air Quality Management Services and comments from Interested and Affected Parties as included in the EIR dated June 2016; and*

104.3. *The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act 1998 (Act No. 107 of 1998).”¹³⁹*

105. As set out above, notice of the authorisation was given to stakeholders on 13 March 2017.

¹³⁸ Environmental Authorisation 28 February 2017 Reasons for the Decision page 25.

¹³⁹ Environmental Authorisation 28 February 2017 Reasons for the Decision page 25.

THE APPEAL

106. The appeal process is set out in the 2014 NEMA Appeal Regulations (“the Appeal Regulations”).¹⁴⁰ Whereas previously, under Chapter 7 of the previous NEMA EIA Regulations published in Government Notice GN 543 of 2 August 2010 (“EIA Regulations, 2010”), an appellant had the opportunity to submit a notice of intention to appeal within 20 days of notification of the EA decision, followed by an appeal 30 days after,¹⁴¹ an appellant under the Appeal Regulations, is obliged to submit a complete appeal within just 20 days from the date of notification of the EA decision. Similarly, a respondent is required to submit a responding statement to the appeal authority and appellant within 20 days of receipt of the appeal submission.
107. Below, the Appellants place on record that the Appeal Regulations, which they are obliged to follow for this appeal process, are unconstitutional.

Objections to the Appeal Regulations

108. The Appellants contend that the time periods both for the submission of an appeal and for a responding statement under the Appeal Regulations is unreasonably short and does not provide adequate time for the consideration of an authorisation and preparation of a comprehensive appeal or opposition thereto. It must be noted that this timeframe exacerbates the difficulties of many I&APs in accessing the technical and legal expertise required to be advised of the impacts of an EA and to prepare and submit or oppose an appeal and participate meaningfully in the appeal process. In addition to the much more generous timeframes in the EIA Regulations, 2010, these also make explicit provision for parties to an appeal to demonstrate good cause and to seek condonation for the late filing of: a notice of intention to appeal;¹⁴² an appeal;¹⁴³ a responding statement; and an answering statement.¹⁴⁴ In contrast, the Appeal Regulations make no provision for condonation in relation to the late filing of an appeal or a responding statement.

¹⁴⁰ GG 38303 of 8 December 2014.

¹⁴¹ Regulations 60 to 62, Chapter 7 of the EIA Regulations, 2010.

¹⁴² Regulation 60(4) EIA Regulations, 2010

¹⁴³ Regulation 62(2) EIA Regulations, 2010.

¹⁴⁴ Regulation 63(3) EIA Regulations, 2010.

109. In addition, under the Appeal Regulations, the Appellants are denied an opportunity to reply to a responding statement submitted in terms of regulation 5. The EIA Regulations, 2010 allow for an appellant to submit an answering statement if the responding statement introduces any new information not dealt with in the appeal submission of the appellant.¹⁴⁵ The exclusion of the opportunity to reply to any new information raised by a respondent contravenes the rights to a fair process and just administrative action as enshrined in the Constitution and PAJA,¹⁴⁶ as well as the common law principle of *audi alteram partem*.¹⁴⁷
110. A further problem with the Appeal Regulations is regulation 4(1), which requires an appellant to submit a copy of the appeal to any organ of state and any interested and affected party with an interest in the matter. This places an unreasonable burden on an appellant who is not an applicant. It is submitted that the obligation to bring the appeal to the attention of all I&APs and organs of state with an interest in the matter should lie either with the applicant - irrespective of whether it is the appellant - or with the appeal administrator. The applicant will have a database of I&APs and interested state organs through the EIA process, the appellant cannot be expected to have this information on hand. Nor would it be feasible for the appellant to have to incur the costs of posting the appeal to all I&APs who do not have electronic mail addresses. This constitutes a severe curtailment of justice.
111. In the present instance, the Appellants do not have access to the contact details of the I&APs or the relevant organs of state. As far as can be ascertained, these details are also not contained in the various EIA reports. As a result, CER wrote to the DEA Appeals Authority on 3 April 2017 in order to determine how to ensure compliance with regulation 4(1). CER was advised to request the list of I&APs from the environmental assessment practitioner (EAP). Although in a previous case where an appeal was submitted under the Appeal Regulations, DEA had advised that they did not expect the appellant to serve on all I&APs, in keeping with more recent

¹⁴⁵ Regulation 63(2)(b) EIA Regulations, 2010.

¹⁴⁶ Section 33 of the Constitution of RSA and s3(1) of PAJA, which states that "*administrative action which materially and adversely affects the rights or legitimate expectations of any person must be procedurally fair*".

¹⁴⁷ This is a Latin phrase meaning "listen to the other side" or "let the other side be heard as well".

advice, CER accordingly, and on the same day, wrote to the EAP and requested the contact details of the I&APs and relevant organs of state. The CER also indicated, in response to the DEA, that it would send the appeal to the email addresses provided by the EAP. After a second follow-up email from the CER to the EAP, the EAP replied on 4 April 2017, indicating that they would respond to the CER's request. The CER again confirmed the deadline of today (4 April 2017) for appeal submission and that the list of contact details was required on an urgent basis. However, the requested information had not been received by 15h30 on 4 April 2017, the deadline for the submission of the appeal. The CER therefore confirmed to the EAP, copying the DEA, that the appeal would be submitted, and that a copy of the appeal would be sent to those email addresses subsequently received from the EAP. This correspondence is attached, marked **A2**. As soon as the list of email contact details is received, the Appellants will ensure that a copy of the appeal is sent to those email addresses. The Appellants have endeavoured to obtain the contact details of some of the relevant organs of state, but given the already severely-curtailed time period for drafting and submitting an appeal, neither the Appellants nor their attorneys have had the time or resources to collect all of the email addresses. As pointed out above, this requirement places an unreasonable burden on an appellant who is not the applicant and does not readily have access to the necessary contact information nor necessarily the resources to comply with this requirement. This difficulty is highlighted here. The Appellants have made all reasonable attempts to ensure compliance with this provision.

112. CER has previously objected to the Appeal Regulations, as well as to the EIA Regulations, 2014.

113. The Appellants contend that the EIA Regulations, 2014 and the Appeal Regulations are unconstitutional as they unjustifiably limit the environmental right,¹⁴⁸ the public participation rights of I&APs, and the right to just administrative action.¹⁴⁹ The Appellants reserve their rights to approach a court for an order of Constitutional

¹⁴⁸ Section 24 the Constitution of RSA.

¹⁴⁹ Section 33(1) the Constitution of RSA states that "Everyone has the right to administrative action that is lawful, reasonable and procedurally fair."

invalidity. CER's comments on these Regulations, which confirm the views of the Appellants, are attached as Annexure **A3**.

GROUNDS OF APPEAL

114. It is the Appellants' submission that the decision to grant the Authorisation to Namane for the Project must be set aside by the Minister as the First Respondent failed to comply with section 24 of the Constitution,¹⁵⁰ and the provisions of NEMA.

115. Based on the above, the Grounds of Appeal are set out as follows:

115.1. The First Respondent failed to comply with section 24 of the Constitution and the provisions of NEMA dealing with, *inter alia*:

115.1.1. Environmental management and sustainable development (section 2 NEMA);

115.1.2. Integrated EAs (section 24L NEMA);

115.1.3. The requirement to coordinate and consult with other relevant organs of state (section 24O(1)(b)(vii) and (c) NEMA);

115.1.4. The obligation to consider feasible and reasonable alternatives (section 24O(1)(b)(iv)); and

115.1.5. The obligation to consider relevant policies and guidelines (section 24O(1)(b)(viii));

115.2. The First Respondent failed to take into account the air quality impacts of the Project and, in so doing, granted an Authorisation which contravenes NEMA and South Africa's air quality legislation;

115.3. Both Respondents failed to adequately take cumulative impacts into account, as required by the EIA Regulations, 2014;

115.4. Both Respondents failed to adequately assess the climate change impacts of the Project or to give adequate consideration to the obligation to reduce GHG emissions;

115.5. The First Respondent failed to adequately consider the need for and desirability of the undertaking of the proposed activities;

¹⁵⁰ The Constitution of the Republic of South Africa, 1996.

- 115.6. The conditions of the Authorisation are vague and unenforceable; and
- 115.7. The granting of the Authorisation constitutes administrative action, which does not comply with the provisions of PAJA, by virtue of:
- 115.7.1. its unlawfulness;
 - 115.7.2. the fact that irrelevant factors were taken into account and relevant factors not considered;
 - 115.7.3. the fact that the decision is not rationally connected to the information before the First Respondent in making the decision or to the reasons given for it by the First Respondent; and
 - 115.7.4. the fact that the decision is so unreasonable that no reasonable person could have granted the Authorisation.

First Ground of Appeal: The First Respondent Failed to Comply with Section 24 of the Constitution and the Provisions of NEMA

116. The First Respondent failed to comply with Section 24 of the Constitution – the environmental right - and the provisions of NEMA (which give effect to section 24 of the Constitution).
117. It is also worth noting that the Freedom Charter of the African National Congress recognises the need to protect the well-being of the people of South Africa from the harmful impacts of industrial activity, stating that "*(a)ll other industry and trade shall be controlled to assist the well-being of the people*". It is submitted that there was also non-compliance with this requirement, in the First Respondent's decision to grant the Authorisation

I. Environmental Management and Sustainable Development

118. Section 2 of NEMA sets out the environmental management principles that must "*serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of [NEMA] or any statutory provision concerning the protection of the environment*" and must "*guide the interpretation, administration and implementation of [NEMA], and any other law concerned with the protection or management of the environment.*"

119. The First Respondent was therefore under an obligation to have regard to the provisions of section 2 addressed herein in making the decision in respect of the authorisation.
120. Section 2(2) NEMA stipulates that “*environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably*”.
121. In this regard, reference is had to the wealth of evidence regarding the significant health impacts of coal-fired power stations.¹⁵¹ A recent report on the health impacts and social costs of coal-fired power stations concluded that atmospheric emissions from Eskom coal-fired power stations were “*causing an estimated 2,200 premature deaths per year, due to exposure to fine particulate matter (PM2.5). This includes approximately 200 deaths of young children. The economic cost to the society is estimated at 30 billion rand per year, including premature deaths from PM2.5 exposure and costs from the neurotoxic effects of mercury on children.*”¹⁵²
122. The aforementioned study evidences that, in addition to the detrimental health impacts which the project would give rise to – which constitute a violation of section 24 of the Constitution – additional expenses are incurred by people living in close

¹⁵¹ For example: Business Enterprises University of Pretoria. 29 September 2001, “The external cost of coal-fired power generation: The case of Kusile”, at:

<http://www.greenpeace.org/africa/Global/africa/publications/coal/FULL%20SCIENTIFIC%20PAPER%20139%20pages.pdf> ;

Swanson, H. 2008, "Literature review on atmospheric emissions and associated environmental effects from conventional thermal electricity generation", at:

http://www.hme.ca/reports/Coal-fired_electricity_emissions_literature_review.pdf

Cropper, M et al. 2012, "The Health Effects of Coal Electricity Generation in India" Resources for the Future June 2012, at:

<http://www.hks.harvard.edu/m-rcbg/rpp/RFF-DP-12-25.pdf>.

Penney, S et al. 200913

"Estimating the Health Impacts of Coal-Fired Power Plants Receiving International Financing" Environmental Defense Fund, at:

http://www.edf.org/sites/default/files/9553_coal-plants-health-impacts.pdf

Pacyna, J et al. 2010, “An assessment of costs and benefits associated with mercury emission reductions from major anthropogenic sources”. J Air Waste Manag Assoc 60 (3): 302-315.

¹⁵² 79 Bellanger, M et al. 2013, “Economic benefits of methylmercury exposure control in Europe: Monetary value of neurotoxicity prevention” Environ Health. 2013; 12:3. available at:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3599906>.

proximity to power stations. These are generally low-income settlements, and this will give rise to further impacts upon their physical, psychological, developmental, cultural and social interests. This is contrary to the following NEM Principle: *“Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons”*.¹⁵³

123. On an international scale, a 2014 report by the World Health Organisation (WHO) confirmed that *“in 2012 around 7 million people died - one in eight of total global deaths – as a result of air pollution exposure. This finding more than doubles previous estimates and confirms that air pollution is now the world’s largest single environmental health risk. Reducing air pollution could save millions of lives.”*¹⁵⁴ A recent report titled ‘Beyond coal: scaling up clean energy to fight poverty’ states that *“[c]oal’s environmental and climate impacts present a clear threat to people living in poverty. Air pollution from coal causes some 670,000 premature deaths a year in China and 100,000 in India. A one gigawatt plant in Indonesia could cause 26,000 premature deaths over its lifespan.”*¹⁵⁵ Similar devastating impacts are being felt in South Africa, as a result of our reliance on coal as an electricity source.
124. An assessment using epidemiological data - recently commissioned by groundWork - shows that Eskom’s existing coal fleet results in 2,239 attributable deaths per year, as well as a heavy burden of illness. A copy of this assessment is attached as **A4**. The monetised costs of death and disease add up to around R33 billion (US\$2.4 bn) per year. This does not include the impact of the coal mines that supply Eskom. The study emphasises that *“air pollution most affects those whose underlying health condition is worst, and hence that any improvement in air quality will most benefit those who are most disadvantaged”*. This is a prime example of the environmental injustice which is prevalent in many parts of South Africa.
125. The health impacts caused by some of the pollutants emitted by coal-fired power plants are listed above at paragraph 77. Furthermore, the storage of post-

¹⁵³ S2(4)(c).

¹⁵⁴ <http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>.

¹⁵⁵ P4, <https://www.odi.org/publications/10589-beyond-coal-scaling-clean-energy-fight-global-poverty>.

combustion waste from coal-fired power plants and its dispersion into the water and air also threatens human health and ecosystems. In South Africa, coal-fired power generation produces at least 36 million tonnes of solid waste residue annually. Called “fly ash” or “coal ash”, this residue is made of very fine particles that are corrosive and contain toxic metals and soluble salts which can leach into the environment, polluting surface and ground water. Coal ash typically contains heavy metals, including arsenic, lead, mercury, cadmium, chromium and selenium. If these leak into the environment, they pose significant health risks.¹⁵⁶ When stored in dry heaps, fly ash can be dispersed into the air, causing a variety of human health impacts when inhaled, including cancer, heart damage, lung disease, and respiratory distress.¹⁵⁷

126. Health impacts from coal-fired power stations cannot be considered in isolation; they must be considered cumulatively with air pollution from other sources. The health impacts of these cumulative emissions, including those from Medupi and Matimba, are severe. These impacts are even worse when emissions from the mines and other numerous polluting industries planned for the area are taken into account.
127. The WHO confirms that *“by reducing air pollution levels, countries can reduce the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma. The lower the levels of air pollution, the better the cardiovascular and respiratory health of the population will be, both long- and short-term.”*¹⁵⁸
128. Air emissions of PM10, PM2.5, SO₂, NO₂, and other pollutants are governed by NAAQS, which establish health-based limits on air pollutants.¹⁵⁹ It is also worth

¹⁵⁶ See Physicians for Social Responsibility, *Coal Ash: Hazardous to Human Health*, <http://www.psr.org/resources/coal-ash-hazardous-to-human-health.html>; Physicians for Social Responsibility and Earthjustice, *Coal Ash: The toxic threat to our health and environment* (September 2010), <http://www.psr.org/resources/coal-ash-the-toxic-threat-to-our-health-and-environment.html>; Physicians for Social Responsibility and Earthjustice, *Coal Ash: The toxic threat to our health and environment*, p.20.

¹⁵⁷ Physicians for Social Responsibility, *Coal Ash: Hazardous to Human Health*, <http://www.psr.org/assets/pdfs/coal-ash-hazardous-to-human-health.pdf>.

¹⁵⁸ <http://www.who.int/mediacentre/factsheets/fs313/en/>.

¹⁵⁹ National Environmental Management: Air Quality Act 39 of 2004, Sec. 9.

mentioning that our NAAQS are significantly weaker than those recommended by the WHO, as well as the standards set in the United States and the European Union.

129. Section 2(3) of NEMA requires that development be socially, environmentally and economically sustainable and section 2(4) of NEMA provides that: “*sustainable development requires the consideration of all relevant factors including, but not limited to, the following:*

(a) that the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;...

(b) that a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and

(c) that negative impacts on the environment and on people’s environmental rights be anticipated and prevented, and where they cannot altogether be prevented, are minimised and remedied.”

130. It is submitted that the First Respondent has failed to apply the risk averse and cautious approach (the so-called ‘precautionary principle’) demanded by section 2 NEMA, in that the First Respondent granted the Authorisation without a comprehensive health assessment or climate impact assessment – both of which are clearly required to be assessed in an EIA. This means that the Authorisation was granted without, *inter alia*, adequate information about the full implications of the project for health and for its contribution to climate change and adaptation to a changed climate. The Appellants refer again to the Thabametsi judgement.

131. Furthermore, it is noted that the Project site area has limited water availability and is in a water-scarce area. Not only are water resource impacts predicted to worsen as a result of the impacts of climate change, but this will also impact negatively upon the health and well-being of communities located in the area as their access to already scarce water resources becomes further restricted. Moreover, in respect of the construction of the Project, and for its future operation, the Appellants point out

that the Project is not feasible given that its access to water, on which its operation depends, cannot be guaranteed.

132. Given the significant health impacts that the Project is likely to have, and the potential devastating impacts that the Project will have for climate change and South Africa's limited water resources, the risk-averse and cautious approach would mean that the Project cannot proceed.
133. It is submitted that the Authorisation also violates section 2(4)(b) of NEMA, which requires as follows: "*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*". The best practicable environmental option (BPEO) is that "*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*".¹⁶⁰
134. Coal-fired power stations are particularly polluting and fall far short of being the BPEO, especially when their health and climate change impacts, as well as South Africa's climate change commitments are considered.
135. Section 2(4)(p) of NEMA provides that "*the cost of remedying 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 by those responsible for harming the environment.*"
136. Coal-fired power stations impact 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.

¹⁶⁰ Section 1(1).

137. It is therefore inconsistent with the above - and other - principles to grant the Authorisation without adequate provision being made for or consideration being given to, *inter alia*, the significant water shortage in the area and inevitable health impacts on those living in the area of the authorised activity and the resultant expenses that they will incur as a result of the anticipated impacts upon their health and well-being.

138. The First Respondent should, at the very least, have required:

138.1. detailed health impact studies to be conducted in respect of the impacts on communities living within close proximity to the project site with regard to air quality and water resources; and

138.2. detailed climate impact studies to be conducted to assess the impacts of climate change for, in particular, water resources estimated to be available for this project, as well as the impacts of the project on GHG emissions and adaptation to a changed climate.

139. I&APs should have been granted an opportunity to make submissions in relation to such studies, and the First Respondent should have considered these studies and the comments received before making any decision in relation to the Authorisation. It is submitted that any claimed economic benefits deriving from the project would far be outweighed by the social and economic harm likely to be caused by it – harm that is likely to accumulate and increase over time as the impacts of climate change become increasingly evident in water-scarce areas like Limpopo.

140. Thus it is submitted that the proposed activity is not socially, environmentally or economically sustainable as it would:

140.1. negatively impact on the health of communities living in the vicinity, which would be directly attributable to the anticipated atmospheric emissions of pollutants such as PM, including dust, NOX, SO2 and mercury by the power station;

140.2. result in additional medical and other expenses being incurred by affected communities and the state;

- 140.3. irreparably impact upon the limited and scarce water resources in the area (impacts which are predicted to worsen as a result of the impacts of climate change);
- 140.4. irreparably impact upon heritage resources and biodiversity existing on the proposed site;
- 140.5. despite this, result in relatively few employment opportunities during the operational phase of the project for only a limited period of time, namely the limited life-time of the power station; and
- 140.6. negatively impact upon the economy in the medium to long-term, given the global trend towards divestment in coal and other fossil-fuels¹⁶¹ and towards investment in renewable energy sources.¹⁶²
141. Furthermore, the section 2 NEMA principles require that global and international responsibilities must be discharged in the national interest.¹⁶³ In this regard it is necessary to point out that South Africa is a signatory to the Paris Agreement on climate change and that it ratified this agreement in November 2016.
142. South Africa is a signatory to the United Nations Framework Convention on Climate Change and the Kyoto Protocol, international agreements which seek to address climate change and set internationally-binding emission reduction targets. South Africa has signed on to the Paris Agreement¹⁶⁴ and ratified this on 1 November 2016.¹⁶⁵
143. South Africa has made commitments for national contributions towards GHG emission reductions for the period 2020-2030, it has ratified the Paris Agreement, and it acknowledges that “*the science is clear that action to address the causes and impacts of climate change by a single country or small group of countries will not be successful. This is a global problem requiring a global solution through the*

¹⁶¹ <http://blueandgreentomorrow.com/2015/03/17/un-backing-fossil-fuel-divestment-campaign>.

¹⁶² See <http://blueandgreentomorrow.com/2015/03/17/un-backing-fossil-fuel-divestment-campaign>.

¹⁶³ S2(4)(n) NEMA.

¹⁶⁴ This is a universal agreement on climate change agreed to at the 21st annual conference of the parties (COP21) in Paris in December 2015.

¹⁶⁵ http://unfccc.int/paris_agreement/items/9444.php and

https://www.environment.gov.za/mediarelease/southafrica_ratifies_parisagreement.

concerted and cooperative efforts of all countries".¹⁶⁶ It is incumbent on the state to ensure that its actions, laws and decision-making coincide with its obligations to address climate change.

144. The Appellants also point out that South Africa is a member of the African Union, and is a signatory to the African Charter on Human and Peoples' Rights (ACHPR). Article 16(1) of the ACHPR recognises that "*every individual shall have the right to enjoy the best attainable state of physical and mental health*". This is relevant when considering the significant health impacts of coal-fired power stations as described above, and the negative, significant health impacts of climate change.
145. The African Commission on Human and Peoples' Rights ("African Commission") is the body tasked with promoting and protecting human and collective peoples' rights and interpreting the Charter. In 2009, the African Commission adopted Resolution 153: Resolution on Climate Change and Human rights and the Need to Study its Impact in Africa.¹⁶⁷ Thereafter, in 2014, Resolution 271 was adopted, the Resolution on Climate Change in Africa,¹⁶⁸ which reiterated the importance of understanding the impact of climate change in Africa. Most recently, in April 2016, the African Commission adopted Resolution 342: Resolution on Climate Change and Human Rights in Africa.¹⁶⁹ In this resolution, the African Commission reiterated that the United Nations Framework Convention on Climate Change obliges States Parties to "*...protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities*". This resolution also states that there must be a study done on climate change impacts on human rights in Africa. The Working Group on Extractives as well as the Working Group on Economic and Social Rights are tasked with undertaking and presenting the study within 2 years, the deadline for this then being April 2018.

¹⁶⁶ Pages 8 and 9, Introduction, National Climate Change Response White Paper.

¹⁶⁷ See <http://www.achpr.org/sessions/46th/resolutions/153>.

¹⁶⁸ See <http://www.achpr.org/sessions/55th/resolutions/271>.

¹⁶⁹ See <http://www.achpr.org/sessions/58th/resolutions/342>.

146. South Africa's ratification of the Paris Agreement signifies (or at least should signify) a commitment to a rapid transition away from fossil fuels. Moreover, in terms of section 231(2) of the Constitution, the Paris Agreement is now binding on the Republic, as such, the South African government is obliged to adhere to its provisions.

147. South Africa has committed to, *inter alia*:

147.1. pursue efforts to ensure temperature increase remains below 1.5°C;

147.2. emissions in a range between 398Mt and 614Mt CO₂-eq between 2025 to 2030;¹⁷⁰

147.3. decline emissions in absolute terms from the year 2035; and

147.4. prepare, communicate and maintain successive nationally determined contributions (NDCs) every 5 years,¹⁷¹ which must represent a progression beyond the current NDC and reflect South Africa's highest possible ambition.¹⁷²

148. South Africa's NDC¹⁷³ outlines South Africa's international commitments in the context of the Paris Agreement and states, *inter alia*, that:

148.1. "South Africa is firmly committed to working with others to ensure temperature increases are kept well below 2°C above pre-industrial levels, which could include a further revision of the temperature goal to below 1.5°C in light of emerging science, noting that global average temperature increase of 2°C translates to up to 4°C for South Africa by the end of the century";¹⁷⁴

¹⁷⁰ Page 6, NDC.

¹⁷¹ Article 4(9), the Paris Agreement.

¹⁷² Article 4(3).

¹⁷³ Available at

<http://www4.unfccc.int/submissions/INDC/Published%20Documents/South%20Africa/1/South%20Africa.pdf>.

¹⁷⁴ Page 1, NDC, available at

<http://www4.unfccc.int/ndcregistry/PublishedDocuments/South%20Africa%20First/South%20Africa.pdf>.

- 148.2. “near zero emissions of CO₂ and other long-lived GHGs are needed in the second half of the century to avoid even greater impacts that are beyond adaptation capability”;¹⁷⁵ and
- 148.3. “South Africa’s INDC was formulated in the context of, *inter alia*, the environmental right set out in section 24 of the Constitution ... and the 2011 National Climate Change Response Policy (NCCRP) ... The full implementation of these policies and plans will bend the curve of South Africa’s GHG emissions towards a peak, plateau and decline trajectory range... In order to ramp up implementation of these policies and plans over time, South Africa is investing heavily in transforming its energy sector. At the heart of this part of the transition to a low-carbon energy sector is a complete transformation of the future energy mix”.¹⁷⁶

149. In relation to the above commitments, it must be pointed out that:

- 149.1. although South Africa has, in its NDC, acknowledged its own vulnerability to a temperature increase of more than 2°C, the emission mitigation commitments made in the NDC would in fact result in a global temperature increase of 3 – 4 °C.¹⁷⁷ Not only will this have disastrous implications globally but it will be catastrophic for South Africa; coal-fired power stations are the single largest source of GHG emissions in South Africa, and these emissions cannot be substantially mitigated;
- 149.2. “near zero emissions” are envisaged in the second half of the century and a “complete transformation of the future energy mix” is required according to this NDC; yet authorising further coal-fired power stations contradicts these commitments. This Plant will have a lifespan of at least 30 years (Medupi has a design lifespan of 50 years¹⁷⁸) meaning that South Africa’s new coal plants will be emitting GHGs late into the second half of the century and beyond. This is simply not feasible or acceptable

¹⁷⁵ Page 1, NDC.

¹⁷⁶ Page 2, NDC.

¹⁷⁷ See <http://climateactiontracker.org/countries/southafrica.html>.

¹⁷⁸ See

<http://www.eskom.co.za/Whatweredoing/NewBuild/MedupiPowerStation/Documents/BROCHUREmedupipowerstationproject.pdf>.

for a country, which urgently needs to be transitioning away from fossil fuels, and which in fact, does not need to rely on fossil fuels as an electricity source;

149.3. The Intergovernmental Panel on Climate Change 5th Assessment Report implies that negative emissions would be required in the second half of the century in order to limit warming to 2°C. As this is hardly feasible or likely, reductions need to be much steeper in the first half of the century, which is now.¹⁷⁹

149.4. South Africa is, in fact, very far from a complete transformation of the future energy mix and authorising coal-fired power stations such as this Project will lock South Africa into further significant carbon emissions for the long-term future, not only destroying the prospects of South Africa ever reducing its GHG emissions in time to avoid the harmful impacts of climate change, but increasingly exposing its people to the harmful impacts of climate change.

150. Based on the above, it is apparent that the Authorisation contradicts the country's international commitments, particularly under the Paris Agreement and the urgent global obligation to reduce GHG emissions. The Appellants argue that authorising additional coal-fired generation would mean that the DEA is not discharging its global and international responsibilities in the national interest, as it would clearly not be in the national interest to allow coal-fired power generation to continue, particularly within the Waterberg, given the health impacts and this country's vulnerability to climate change.

II. Failing to give effect to the general objectives of integrated environmental management laid down in Chapter 5 of NEMA through failing to meet the requirements of NEMWA for a WML and consequently an integrated licence as required by NEMWA and NEMA

¹⁷⁹ https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_summary-for-policymakers.pdf.

151. It is noted that the Authorisation is an integrated authorisation in terms of both NEMA and its EIA regulations, 2014, and NEMWA and its list of waste management activities.¹⁸⁰

152. Section 24L NEMA provides that an integrated EA may only be issued if “*the relevant provisions of ... [NEMA] and the other law or specific environmental management Act have been complied with*”. This confirms that the authorisation must comply with the requirements of NEMWA.

153. Section 44(1) of NEMWA regulates co-operative governance in WML applications and provides for the issuing of an integrated licence in this regard.¹⁸¹

154. In terms of section 44(4) NEMWA, an integrated licence must:

“(a) specify the statutory provisions in terms of which it has been issued;

(b) identify the authority or authorities that have issued it;

(c) indicate to whom applications for any amendment or cancellation of the integrated licence must be made; and

(d) indicate the appeal procedure to be followed.”

155. Section 51(1) NEMWA specifies and stipulates what a WML must contain.¹⁸² The WML should specify:

“(a) the waste management activity in respect of which it is issued;

(b) premises or area of operation where the waste management activity may take place;

(c) the person to whom it is issued;

¹⁸⁰ Government Notice 921 of 2013.

¹⁸¹ Section 44(1) provides that “*for the purposes of issuing a licence for a waste management activity, the licensing authority must as far as practicable in the circumstances co-ordinate or consolidate the application and decision-making processes contemplated in this Chapter with the decision-making process in Chapter 5 of [NEMA] and other legislation administered by other organs of state, without whose authorisation or approval or consent the activity may not commence, or be undertaken or conducted.*”

¹⁸² Section 50 NEMWA deals with the issuing of WMLs subject to the condition requirements set out in section 51.

- (d) the period from which the waste management activity may commence;*
- (e) the period for which the licence is issued and period within which any renewal of the licence must be applied for;*
- (f) the name of the licensing authority;*
- (g) the periods at which the licence may be reviewed, if applicable;*
- (h) the amount and type of waste that may be generated, handled, processed, stored, reduced, reused, recycled, recovered or disposed of;*
- (i) if applicable, the conditions in terms of which salvaging of waste may be undertaken;*
- (j) any other operating requirements relating to the management of the waste; and*
- (k) monitoring, auditing and reporting requirements.”*

156. Section 17.1 of the Authorisation specifies permissible waste and the conditions regulating the ash dumps and pollution control dams are contained in section 17.2. Section 17.11 of the Authorisation deals specifically with general operation and impact management of waste management activities.

157. The Authorisation falls short of the requirements of section 24L of NEMA read with the above requirements of section 51 of NEMWA, in that a number of the section 51 requirements are not met. The Authorisation fails to stipulate in the Authorisation:

157.1. the period for which the licence is issued;

157.2. the periods at which the licence may be reviewed; and

157.3. the amount and type of waste that may be generated, handled, processed, stored, reduced, reused, recycled, recovered or disposed of, as the Authorisation fails to quantify the waste.

158. In addition, the monitoring, auditing and reporting requirements are too vague to constitute adequate compliance with section 51(1)(k) of NEMWA.

159. If this is to be a valid integrated Authorisation, its contents must be amended to ensure that it meets the requirements for a valid WML.

III. Failing to coordinate and consult with relevant organs of state

160. Section 24(4) of NEMA provides, in relevant part:

“Procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment ...

(a) must ensure, with respect to every application for an environmental authorisation:

(i) coordination and cooperation between organs of state in the consideration of assessments where an activity falls under the jurisdiction of more than one organ of state;

(ii) that the findings and recommendations flowing from an investigation, the general objectives of integrated environmental management laid down in this Act and the principles of environmental management set out in section 2 are taken into account in any decision made by an organ of state in relation to any proposed policy, program, process, plan or project...”

161. Section 24O(1)(b)(vii) of NEMA provides that when a decision-maker is considering an environmental authorisation application, he or she must take into account *“any comments received from organs of state that have jurisdiction over any aspect of the activity which is the subject of the application.”* Section 24O(1)(c) of NEMA also obliges a decision-maker to take into account the comments of any organ of state charged with the administration of any law which relates to the activity in question.

162. It appears from the Public Participation during the Impact Assessment Phase section of the Updated EIR that questions were raised concerning, *inter alia*, job

creation, rural and social development, provision of water, and atmospheric emissions were raised.¹⁸³

163. There is no indication, from the Comments and Response Report that the Limpopo Department of Water and Sanitation (LDWAS) participated at any stage of the EIA process, although it is noted that government was identified as one of the stakeholders, including national, provincial, district and local authorities.¹⁸⁴ This is a major concern for the Appellants, given that the shortage of water is one of the many reasons why the Authorisation should not have been granted.
164. It also appears that that Department of Health (DoH) has been left out of the EIA process for the Project, although the Limpopo DoH is listed as a stakeholder in the public participation report. A failure to ensure the involvement of the DoH in the EIA process would be a significant error, given the substantial health impacts that will arise from the Project if authorised. The DoH is recognised as one of the key stakeholders mandated to provide oversight on the impacts of human health. The DoH has an overall responsibility for healthcare in the country, with a specific responsibility for public-sector healthcare.¹⁸⁵ It has as its mission to, *“improve health status through the prevention of illnesses and the promotion of healthy lifestyles and to consistently improve the healthcare delivery system by focusing on access, equity, efficiency, quality and sustainability.”*¹⁸⁶
165. It is not known to what extent the LDWAS, DoH or other relevant state departments have been involved in the decision-making process of the First Respondent with regard to the Authorisation, as this is not reflected in the Public Participation Report. It is, however, noted that, given the anticipated impacts of the project on health and surrounding water resources, the First Respondent should have consulted with LDWAS and DoH and these departments should have participated in this decision-making process. Failure to do so amounts to a neglect of their constitutional and legislative obligations. It is submitted that, if

¹⁸³ EIR June 2016 page 174 – 298.

¹⁸⁴ Appendix R: Public Participation Report, June 2016.

¹⁸⁵ See <https://yourfuturenow.co.za/public-and-private-healthcare-in-sa/>.

¹⁸⁶ <http://www.health.gov.za/index.php/shortcodes/vision-mission>.

the Authorisation was granted without input from LDWAS, it will have been granted without having regard to relevant considerations. Furthermore since, as has been submitted above, the WUL application has not yet commenced, it is unlikely that the LDWAS, and/or DWS, and consequently the First Respondent, would have seen or been able to consider any recent and relevant water studies in respect of the Project.

166. It is noted that notification of Intent to Develop a Heritage Scoping Report was submitted to SAHRA and the Limpopo Heritage Resources Authority for comment. However, no further interaction with these bodies is indicated in the Heritage Impact Assessment (HIA) Report.¹⁸⁷

167. It is pointed out, *inter alia*, that the site of the Project includes a number of Stone Age sites, particularly given the proximity to the pans in the proposed Project area.¹⁸⁸

168. The Update EIR makes no mention of a palaeontological assessment - the HIA, dated June 2016, only contains an archaeological impact assessment, and the EIR currently notes, in respect of palaeontology for the project site that a protocol is in place in the instance of a 'chance finding'.¹⁸⁹ It is submitted that more palaeontological data should have been included in the HIA to place the First Respondent in a position to assess this information.

IV. Failure to take into account feasible and reasonable alternatives

169. Section 24O(1)(b)(iv) provides that a decision-maker must take into account "*where appropriate, any feasible and reasonable alternatives to the activity which is the subject of the application and any feasible and reasonable modifications or changes to the activity that may minimise harm to the environment*".

¹⁸⁷ Appendix Q: Heritage Impact Assessment, June 2016.

¹⁸⁸ Appendix Q: Heritage Impact Assessment, June 2016 page 26; EIR June 2016 page 153.

¹⁸⁹ EIR June 2016 page 489.

170. It is submitted that a suitable alternative in the circumstances would be to abandon implementation of the project entirely, otherwise known as the 'no-go option' and referred to in the Updated EIR as a 'No-Go Alternative'.¹⁹⁰ The EIR states that, if the Project were not to proceed, it would compromise the development of the Temo Coal Mine, and that the demand for Eskom's energy consumption will continue, and there would be a negative consequence in terms of economic activity, skills development and available jobs not created (locally, provincially, and nationally).¹⁹¹

171. However, this assumes:

171.1. that there would be benefit in the development of the Temo mine, when in fact, this mine would come with its own detrimental health; social; economic; environmental and climate change impacts. Although the Appellants have not been involved in the process for the mine and are unable to make detailed comment on this, the mine cannot be relied upon as a justification for the Project to proceed; and

171.2. that there is currently a demand for Eskom's energy and that such demand will continue. Eskom itself has indicated that this is not the case, and while South Africa was previously faced with a crisis of inadequate capacity to meet demand, it now faces electricity oversupply: Eskom now reports that it has a surplus of energy and has reportedly had surplus capacity since at least May 2016.¹⁹²

172. The Updated EIR states "*at this stage, however, the benefits of the proposed development, including the practical use of lower bench coal, that would otherwise be discarded, for electricity production into the national grid, and the*

¹⁹⁰ EIR June 2016 page 61.

¹⁹¹ EIR June 2016 page 489.

¹⁹² See <http://www.eskom.co.za/Documents/StateSystemMay2016.pdf>; <http://www.eskom.co.za/news/Pages/Jann24.aspx>; <http://www.iol.co.za/business-report/eskom-reports-operational-surplus-energy-capacity-7493144>; <http://citizen.co.za/news/news-national/1466247/eskom-signs-5-year-electricity-sales-agreement-with-nampower/>

potential economic development, outweigh the maintenance of the current status quo".¹⁹³

173. The Updated EIR, however, fails to indicate why renewable energy sources could not have been used as a suitable alternative, and it only considers coal as a source of power generation.
174. The Updated EIR indicates one reason for the Project going ahead is that it uses lower bench coal that would otherwise be discarded. In light of the negative impacts associated with coal-fired power stations and the dire shortage of water in the area - likely to worsen as a result of climate change within the timescale of this project - as highlighted above and in more detail below, it is submitted that this is an unacceptable justification to rule out feasible alternatives; especially when the EIR does not make any proper attempt to consider and evaluate these as is required by NEMA. What makes this even more unacceptable is the fact that lower-grade coal results in higher atmospheric emissions, with increased health impacts. In the circumstances, a proper weighing up of the impacts would surely confirm that this is not an adequate justification for the Project to go ahead.
175. The Updated FEIR does not consider solar or wind renewable energy as alternatives to the proposed Project. Mere lip service is paid to the requirement to consider feasible and reasonable alternatives, including the no-go option, but these have not been adequately considered.
176. Without the necessary technical data and research information, the Appellants are not in a position to make submissions on the suitability and generation capacity of the project site of for specific renewable energy generation through, for instance, solar or wind. However, it is submitted that the First Respondent should have considered this possibility and required that feasibility studies for renewable energy sources - as an alternative to coal - be conducted as part of the EIA.

¹⁹³ EIR June 2016 page 489.

177. Given the scarcity of water resources in the area and the substantial water requirements of the Project; the cumulative and other environmental impacts of the Project, the related detrimental health impacts and the potential for renewable power generation on the site, it is submitted that it would be appropriate to consider both the 'no-go alternative, and the possibility of renewable energy as a feasible alternative to the project in the circumstances.
178. Renewable energy from solar and wind is a very feasible alternative to the Project, which should have been considered.
179. In October 2016, a Stanford University study on renewable energy concluded, *inter alia*, that:
- 179.1. South Africa could provide 100% of its electricity needs from wind, water and sunlight, with electricity rates equal to business as usual rates of US\$0.096/kwh;¹⁹⁴
 - 179.2. optimal percentages for end-use load for renewables by 2050 included roughly 42% from onshore wind, 6% from offshore wind, 17% from residential rooftop solar, 9% from commercial or governmental rooftop solar, 10% from solar plants, and 12% from concentrated solar plants, and 3% from waves.¹⁹⁵ This would provide over 300,000 construction jobs and nearly 300,000 operational jobs lasting 40 years or more;¹⁹⁶
 - 179.3. only 0.15% of South Africa's land would be needed for all renewable infrastructure;
 - 179.4. South Africa would save US\$71.2 billion in health costs per year, roughly 5% of GDP;¹⁹⁷
 - 179.5. nearly 11,000 deaths from air pollution would be avoided each year;¹⁹⁸
and

¹⁹⁴ Mark Jacobson et al., *100% Clean and Renewable Wind, Water, and Sunlight (WWS) All Sector Energy Roadmaps for 139 Countries of the World* (October 24, 2016). <http://web.stanford.edu/group/efmh/jacobson/Articles/l/CountriesWWS.pdf>. A summary graphic for South Africa is available at <https://100.org/wp-addons/maps/embed-large.html#710>.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ *Id.*

- 179.6. every person in South Africa would save an estimated US\$206 per year from reduced energy costs by 2050, and over US\$12,000 per year in energy, health and climate costs combined.¹⁹⁹
180. The benefits of implementing renewable energy speak for themselves, and South Africa clearly has phenomenal potential for renewable energy.
181. There is increasing evidence of rapidly expanding and sustainable employment opportunities in the renewable energy sector.²⁰⁰ China appears to be leading in this regard, with already 3.5 million jobs in the renewable energy sector.²⁰¹
182. The latest DOE report, 'State of Renewable Energy in South Africa 2015' states that a total of 25 562 jobs were created over 3 years of policy-driven renewables development.²⁰²
183. The IPP Office's IPP Overview Report for 2016 notes that the REIPP Programme "*[c]reated 29 888 job years (the equivalent of a full time employment opportunity for one person for one year) for South African citizens, or 33 916 jobs (FTEs)*²⁰³ for South African citizens" by the end of 2016.²⁰⁴ This number could increase significantly if renewable capacity would be increased.²⁰⁵
184. Any arguments, therefore, to the effect that the Project is necessary for economic development and the provision of employment are not correct or credible. Particularly not when much better alternatives for economic development exist, which do not have the same environmental, health, or climate impacts.

¹⁹⁹ *Id.*

²⁰⁰ <http://climate-energy.blogs.panda.org/2015/05/25/with-9-2-million-employed-by-renewable-energy-is-the-jobs-myth-finally-bust/>; <http://earthlife.org.za/www/wp-content/uploads/2009/02/se-2-employment-potential-of-re.pdf>.

²⁰¹ See

http://www.irena.org/News/Description.aspx?NType=A&mnu=cat&PriMenuID=16&CatID=84&News_ID=1450.

²⁰² <http://www.energy.gov.za/files/media/Pub/State-of-Renewable-Energy-in-South-Africa.pdf> at page 135.

²⁰³ Full time equivalent, in this case "person months (reporting unit of IPP agreements) converted to FTEs".

²⁰⁴ Executive Summary, p2, Quarterly Report, Overview of the IPPPP, December 2016 available at <https://www.ipp-projects.co.za/Publications>.

²⁰⁵ <http://www.greenpeace.org/international/Global/international/publications/climate/2015/Energy-Revolution-2015-Full.pdf> at page 90.

185. In light of the above, it is submitted that the First Respondent has failed to comply with section 24O(1)(b)(iv) of NEMA. By doing so, it has also failed to take relevant considerations into account.

V. *Failure to consider applicable policies relevant to the application*

186. Section 24O(1)(b)(viii) NEMA provides that a decision maker must consider “*any guidelines, departmental policies, and environmental management instruments that have been adopted in the prescribed manner by the Minister or MEC, with the concurrence of the Minister, and any other information in the possession of the competent authority that are relevant to the application*”.

187. It is submitted that the First Respondent, in granting the Authorisation, evidently failed to take into account the National Climate Change Response White Paper (the “White Paper”)²⁰⁶ which acknowledges, *inter alia*, that: “*although there will be costs associated with South Africa’s adaptation and GHG emission reduction efforts, there will also be significant short and long-term social and economic benefits ... Furthermore various economic studies have shown that the costs of early action will be far less than the costs of delay and inaction*”. In its objectives, it records that it will “*effectively manage inevitable climate change impacts through interventions that build and sustain South Africa’s social, economic and environmental resilience and emergency response capacity [and] make a fair contribution to the global effort to stabilise GHG concentrations in the atmosphere.*”²⁰⁷

188. This White Paper confirms, among other things, that “*South Africa is a water scarce country with a highly variable climate and has one of the lowest run-offs in the world – a situation that is likely to be significantly exacerbated by the effects of climate change.*”²⁰⁸

²⁰⁶ Available at <http://www.sanbi.org/sites/default/files/documents/documents/national-climate-change-response-white-paper.pdf>

²⁰⁷ Page 11, National Climate Change Response Objective, National Climate Change Response White Paper.

²⁰⁸Page 17, Section 5.2: Water, National Climate Change Response White Paper.

189. The White Paper indicates clearly the intention of the government to take positive steps to address issues of air quality and climate change in South Africa. In granting the Authorisation, and given the significant GHG emissions of coal-fired power stations, the First Respondent has directly contradicted these intentions and consequently contravened section 24O(1)(b)(viii) NEMA.

190. The Appellants reiterate that the Thabametsi judgement makes clear that the failure to adequately consider the climate change impacts of the proposed coal-fired power station means that the Authorisation should be set aside on appeal.

Second Ground of Appeal: The First Respondent Failed to Take into Account the Air Quality Impacts of the Project and, in so doing, Granted an Authorisation which Contravenes South Africa's Air Quality Legislation

191. It is submitted, as has been mentioned above, that the Updated EIR and the First Respondent's decision to grant the Authorisation fail to consider:

191.1. the significant contribution that the project will make to the already poor air quality within the WBPA;

191.2. the severely detrimental, and often fatal, health impacts of coal-fired power station emissions on people residing in close proximity to them; and

191.3. the objectives and provisions of South Africa's national air quality legislation.

192. In the context of giving effect to the environmental right in section 24 of the Constitution, AQA was promulgated as the framework legislation to ensure that levels of air pollution are not harmful to human health or well-being. The AQA commenced on 11 September 2005 and aims to: protect and enhance of the quality of air in the Republic; prevent air pollution and ecological degradation; secure ecologically sustainable development while promoting justifiable economic and social development; and generally give effect to section 24(a) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people.²⁰⁹

²⁰⁹ Section 2 AQA.

193. The 2012 National Framework for Air Quality Management in the Republic of South Africa²¹⁰ (“the 2012 National Framework”) records that the environmental impact assessment process is a participatory process, which provides government with the detailed information required for it to make an informed decision on whether a development may go ahead or not, and, in the case of a go-ahead, exactly what measures must be taken to ensure that safety, health and environmental impacts are kept to acceptable levels.²¹¹
194. The 2012 National Framework is binding on all organs of state in all spheres of government by virtue of section 7(3)(a) AQA and it recognises that “*activities that result in atmospheric emissions are to be determined with the objective of achieving health-based ambient air quality standards. Each new development proposal with potential impacts on air quality must be assessed not only in terms of its individual contribution, but in terms of its additive contribution to baseline ambient air quality i.e. cumulative effects must be considered.*”²¹²
195. NAAQS were published in terms of section 9 of AQA, on 24 December 2009 for various substances, including for PM₁₀ (particles with aerodynamic diameter less than 10 micro metres), and on 29 June 2012, for PM_{2.5} (particles with aerodynamic diameter less than 2.5 micro metres). The NAAQS establish national standards for ambient air quality, including the permissible amount or concentration of each such substance or mixture of substances in ambient air. The NAAQS are health-based standards, intended to provide safe daily exposure levels for the majority of the population - including the very young and elderly. As indicated below, despite South African NAAQS being weak, these are continuously exceeded, particularly in the three priority areas.
196. It is submitted that the air quality impacts of the project were not considered in accordance with the 2012 National Framework or with NAAQS.

²¹⁰ Government Notice 919, of Government Gazette no 37078 of 29 November 2013.

²¹¹ Paragraph 4.2.6, page 35, 2012 National Framework for Air Quality Management in South Africa.

²¹² Paragraph 5.5.3.2, page 79, 2012 National Framework for Air Quality Management in South Africa.

197. As stated above, the towns of Marapong, Onverwacht and Lephalale are all located within less than 25kms from the project site.

198. It has already been noted above that coal-fired power stations contribute to the poor health and high mortality rates of people living in close proximity to them. Even in 2006, reports which Eskom commissioned itself,²¹³ prepared at a time when it operated only 10 coal-fired power stations, the deadly impacts of power station emissions were considered. In relation to Mpumalanga, the report²¹⁴ found, *inter alia*, that:

198.1. future baseline Eskom power station emissions are associated with significant non-compliance with relevant ambient SO₂ limits even in the absence of contributions by “other sources”. The magnitude, frequency and spatial extent of such non-compliance are predicted to increase significantly when compared to current baseline emissions;

198.2. current Eskom power stations were cumulatively calculated to be responsible for 17 non-accidental mortalities per year and 661 respiratory hospital admissions, representing 3.0% and 0.6% of the total non-accidental mortalities and respiratory hospital admissions projected across all sources;

198.3. future Eskom power stations (without SO₂ abatement in place) and other sources quantified during the study, were predicted to result in 1209 deaths per year and about 155 623 respiratory hospital admissions per year;

198.4. Eskom power stations are predicted to become the most significant source group in terms of contributions to estimated total non-accidental mortality due to inhalation exposures (51% of predicted). The large increase in the contribution of Eskom power stations to the total estimated risk is due to (i) the larger mortality risk assigned to SO₂ relative to PM₁₀ and nitrogen dioxide (NO₂) and (ii) the marked increase in the frequency of the exceedance of the threshold above which health risks are calculated (ie 25µg/m³);

²¹³ The Eskom health studies and reports can be accessed at: <http://cer.org.za/virtual-library/letters/eskoms-health-studies>.

²¹⁴ Eskom Mpumalanga Highveld Cumulative Scenario Planning Study: Air Pollution Compliance Assessment and Health Risk Analysis of Cumulative Operations of Current, RTS and Proposed Eskom Power Station Located within the Mpumalanga and Gauteng Provinces, October 2006.

198.5. health risks do not increase in the same order as increases in emissions, but rather tend to increase more sharply with such changes. Even marginal increases in emissions could significantly increase health risks by resulting in more people being exposed to concentrations in excess of the threshold. It is for these reasons that, whereas future Eskom power station emissions will increase by a factor of 2.2 (i.e. 54% from 1434 ktpa to 3126 ktpa), mortalities and hospital admissions due to Eskom power station emissions are projected to increase by factors of 36 and 27, respectively.²¹⁵

199. It is submitted that even in relation to Limpopo,²¹⁶ at a time when Matimba was the only coal-fired power station in the area and using 2001 census data, Eskom's own report (which was redacted by Eskom prior to its release in response to a Promotion of Access to Information Act, 2000 request) stated:²¹⁷

Exposures to SO₂ were estimated to be responsible for 82% of the total non-accidental mortality and 38% of the respiratory hospital admissions estimated due to current, quantified sources. PM10 was predicted to be responsible for 17% of the total non-accidental mortality and 57% of the respiratory hospital admissions. Nitrogen dioxide was found to be the least significant of the three pollutants considered in terms of total morbidity and mortality, accounting for only ~1% of the total non-accidental mortality estimated and 5% of the respiratory hospital admissions.

Project Alpha and [redacted] would result in health risks being doubled from 1.5 to 3 premature deaths and from 144 to 300 respiratory hospital admissions per year. The implementation of SO₂ controls with a 90% control efficiency for Project Alpha is predicted to result in an avoidance of ~1 mortality and ~50 respiratory hospital admissions per year, with the remaining increment being primarily due to the [redacted].

Inhalation-related health risks due to Matimba Power Station operations and other sources are predicted to be relatively low due primarily to the limited exposure potential. Only about 22 000 people were estimated to live within ~25 km of the power station based on the 2001 Census data, with the majority of these people residing upwind of the power station. Given such exposure, health risks due to SO₂, PM10 and NO₂ concentrations from Matimba Power Station, [redacted], household fuel burning and brickmaking emissions are estimated to result be in the order of ~1.5 premature mortalities and ~140 respiratory hospital admissions per year. The highest health risks due to all sources are predicted to coincide with the areas of denser residential settlement (Marapong, Onverwacht) as is to be expected.

Emissions from existing Matimba Power Station operations are estimated to be responsible for ~80% of the premature mortality and ~50% of the respiratory hospital admissions predicted to occur.

²¹⁵ Xiv-xvii.

²¹⁶ Air Pollution Health Risk Analysis of Operations of Current and Proposed Eskom Power Stations Located in the Limpopo Province.

²¹⁷ Iii.

200. In relation to Medupi power station, the World Bank's Inspection Panel, following an investigation, produced an Investigation Report in November 2011.²¹⁸ This report found significant and serious health impacts associated with Medupi's operation.
201. As stated above, the location of the project falls within the WBPA, declared as such in terms of section 18(1) AQA.²¹⁹ The WBPA AQMP reports clearly that development in the region will increase ambient concentrations of pollutants on a regional scale, and the areas of greatest concern are where the NAAQS for SO₂ and PM₁₀ are predicted to be exceeded, concentrated in the Lephalale area and extending towards Botswana.²²⁰
202. In addition to all of the identified factors that will lead to poorer air quality, the WBPA AQMP notes that the current resources in all tiers of government responsible for AQM in the WBPA are not adequate to cope effectively with the imminent changes.²²¹ The decision to grant the Authorisation goes against the clear air quality management intentions for the WBPA.
203. The Waterberg-Bojanala was declared a priority area because the NAAQS were being or might be exceeded in the area.²²² However, it is now clear that NAAQS are being exceeded.²²³
204. The Updated EIR envisages a high risk for cumulative air quality impacts, yet fails to adequately assess air quality impacts.²²⁴
205. Despite the allegation in the Updated EIR that the air quality impacts were considered in the EIA process, the Appellants dispute that there was anything near

²¹⁸ South Africa: Eskom Investment Support Project (IBRD Loan No. 78620-ZA), 21 November 2011, Report No. 64977-ZA. Available at http://siteresources.worldbank.org/EXTINSPECTIONPANEL/Resources/Eskom_IPN_Investigation_Report_11.21.11.pdf.

²¹⁹ Government Notice 495, Government Gazette no 35435 of 15 June 2012.

²²⁰ Page 186 WBPA AQMP.

²²¹ Page 186 WBPA AQMP.

²²² Section 18(1) AQA.

²²³ Annexure A1 - Waterberg Bojanala Priority Area AQMP Baseline assessment_24-04-2015.pdf, available at: <http://www.saaqis.org.za/Downloads.aspx?type=AQ>.

²²⁴ EIR June 2016 page 400, Table 12-1.

to an appropriate assessment of air quality considerations in this regard. The EIR, instead of addressing the air quality impacts of the project, simply suggests that there will be an impact, but fails to substantively consider this impact. This is not what is prescribed by NEMA and the EIA process, which requires that all potential environmental impacts be considered, investigated, assessed and reported on.²²⁵

206. If the constitutional environmental rights, AQA, NEMA, the NAAQS, the WBPA declaration and AQMP, the 2012 National Framework, as well as the health assessments and reports referred to above, had been taken into consideration as required, it is submitted that the First Respondent would not have granted the Authorisation.

Third Ground of Appeal: the First Respondent Failed to take into Account the Cumulative Impacts of the Project

207. The EIA Regulations, 2014 define cumulative impacts as “*in relation to an activity ... the impact of an activity considered together with the impact of activities associated with that activity that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities*”.²²⁶

208. Paragraph 3(j)(i) of Appendix 3 of the EIA Regulations, 2014, require an EIA to contain an assessment of each identified potentially significant impact and risk including, *inter alia*, cumulative impacts. The First Respondent should have rejected the Updated EIR as it does not substantially comply with the requirements of NEMA and the EIA Regulations, 2014.²²⁷

209. The Updated EIR, in relation to cumulative impacts, states as follows:

209.1. With regard to air quality “*The proposed Project is located within the footprint demarcated as the Waterberg Air Quality Apriority Area. Industrial sources*

²²⁵ Section 24(1) NEMA.

²²⁶ Regulation 1(1) NEMA EIA Regulations, 2014.

²²⁷ Regulation 18 EIA Regulations, 2014.

in the area are the highest contributors of SO₂, NO₂ and CO, with mining as the highest contributor of particulate matter – [total suspended particulates] and PM₁₀. The real and future threats to the ambient air quality are attributed to the planned expansion of energy-based projects and coal mining in the Waterberg District Municipality. This future rise in emissions will add on to the current background of pollutants with potential increase in exposure and impacts on human and surrounding environment.”²²⁸

209.2. With regard to the cumulative impact on aquatic biodiversity, the Updated EIR states: *“Coal mining and power production industrial activities within the catchment area of this SQR are planned to increase. The negligible impact of the proposed project will however likely contribute toward a limited overall cumulative impact on local aquatic biota within the [Sub-Quaternary-Reach],”²²⁹* and with regard to wetlands, it states further that *“the environmental issues in this area will be related to the power stations and coal mines, as well as the anticipated urban and industrial expansion and include atmospheric pollution, acid mine drainage, water quality degradation, unsustainable water use, soil compaction, loss of agricultural potential and biodiversity.”²³⁰*

209.3. This fails to address the strong possibility that the water supply from MCWAP may be insufficient and/or that MCWAP 2 may not obtain the necessary approval to proceed at all. There is a very likely possibility that the cumulative impacts on the water sources in the area, in the long-term will be severe, and will result in dire consequences for the communities and existing projects in the area. A decision regarding a project that has a high demand for water in a water-scarce region cannot disregard or even downplay the cumulative, long-term future impacts. In this regard it is worth pointing out that Thabametsi IPP’s (also to be based in Lephalale) draft climate change impact assessment report²³¹ notes increased water scarcity as a result of climate change, as a high risk to the power station project, and also flags the possibility of demand exceeding the availability of water

²²⁸ EIR June 2016 page 400.

²²⁹ EIR June 2016 page 400.

²³⁰ EIR June 2016 page 400.

²³¹ Available at <http://www.savannahsa.com/projects/project.php?project=438>.

supplies from the Mokolo River.²³² If Thabametsi (a preferred bidder under the CBIPPPP first bid window), is already likely to place strain on water resources in the area, it can simply not be feasible for another power station to be established in the area;

- 209.4. The Project also fails to take into account potential cumulative impacts caused by seepage from the ash dump or coal stockpiles, and it fails to address any potential groundwater impacts resulting from the boreholes on the site.
- 209.5. The Updated EIR recognises that, due to the numerous power stations in the area, there will be compounding of effects and hence cumulative impacts during operation of the power station. It acknowledges that there is a risk to health and a high risk of direct and cumulative air quality impacts from dust, PM₁₀, SO₂ and NO_x emitted during normal operation of the power station.²³³ It is noted that the modelling for the assessment only assessed the cumulative impacts of certain sources of air pollutants at the Project, such as the stacks, coal storage and ash dumps, but failed to assess cumulative impacts of other current and future sources of air pollutants in the area, such as other power stations, industries and /or mines. This amounts to a failure to comply with NEMA's section 24 provisions, as the potential consequences for or impacts on the environment of listed activities or specified activities were not adequately considered, investigated, assessed and reported on to the competent authority. In these circumstances, authorisation should not have been granted.
- 209.6. With regard to cumulative impacts on heritage sites, the EIR simply notes change in a general sense and fails to adequately assess this specific project's impact on the cumulative impacts.²³⁴
- 209.7. Similarly, the cumulative visual and social impacts are listed in a general sense and adequate detail is not given.

²³² Page 29, Thabametsi Climate Resilience Assessment, available at <http://www.savannahsa.com/projects/project.php?project=438>.

²³³ EIR June 2016 page 400.

²³⁴ EIR June 2016 page 402.

210. In light of the above, it is submitted that the Updated EIR fails to adequately assess cumulative impacts of the project and therefore does not comply with EIA Regulations, 2014, as cited above. The First Respondent should have refused the EIR as does not substantially comply with the requirements of NEMA and the EIA Regulations, 2014.²³⁵
211. In instances where the risks of cumulative impacts are recognisably high, such as in the case of the air quality and water impacts, it is submitted that the First Respondent failed to attach sufficient weight to the severity of the impacts and should have refused the Authorisation on this basis alone, or, at the very least (also in application of the precautionary principle), should have required that further, more detailed, investigation into the impacts be conducted.

Fourth Ground of Appeal: Both Respondents Failed to take into Account the Project's Climate Change Impacts

212. It is proven that climate change impacts upon, and will continue to impact on, *inter alia*:
- 212.1. water resources, due to changes in rainfall and evaporation rates, which will consequently impact upon agriculture, forestry and industry - due to an increased irrigation and water supply demand;²³⁶
 - 212.2. air quality, through the impacts upon weather patterns, which will negatively influence criteria pollutants such as PM, SO₂, NO₂, ozone, carbon monoxide, benzene, lead;²³⁷
 - 212.3. human health, through bringing about an increase in, for instance, vector-borne diseases, heat stress, increased natural disasters;²³⁸
 - 212.4. biodiversity due to, for instance, loss of habitat resulting from increased temperatures and desertification;²³⁹ and

²³⁵ Regulation 18 EIA Regulations, 2014.

²³⁶ Pages 6 – 9, Long Term Adaptation Scenarios: Summary for Policy Makers available at <http://www.sanbi.org/sites/default/files/documents/documents/ltassummary-policy-makers2013high-res.pdf>.

²³⁷ Page 11, Long Term Adaptation Scenarios: Summary for Policy Makers.

²³⁸ Page 11, Long Term Adaptation Scenarios: Summary for Policy Makers.

²³⁹ Page 15, Long Term Adaptation Scenarios: Summary for Policy Makers.

- 212.5. marine fisheries, due to changes in water flows and ocean temperatures.²⁴⁰
213. As set out above, the NEMA section 2 Principles also require the DOE to consider government's global and international responsibilities relating to the environment, in particular climate change.
214. South Africa has acknowledged that a temperature increase of 2 °C globally would equate to 4 °C in South Africa; yet our current commitments would see a rise in temperature exceeding 3–4°C globally (meaning that this would be much higher in South Africa).²⁴¹ This will be disastrous for South Africa.
215. South Africa is already one of the world's largest contributors to global climate change, having produced around 547Mt of carbon dioxide equivalent (CO₂-eq) in 2010 (around 231.9 Mt is produced by the electricity sector alone). The South African government has recognised the need for climate action and has committed to an emission range of 398 and 614 Mt CO₂-eq between 2025 and 2030. However, the Medupi and Kusile power stations, alone, will likely add a further 70Mt of CO₂-eq per year. This, in addition to other high emitting sectors such as transport, mean that there is little room for further GHG emissions to be generated in South Africa. Yet, the Project, which is merely one of many further coal-fired power plants envisaged to be commissioned in future, is likely (depending on how much coal it intends to burn, which is not clear in the Updated EIR) to produce between 5.6 Mt CO₂ eq and 8.46 Mt CO₂ eq per year. ²⁴²
216. National legislation recognises the need to curb GHG emissions and address climate change in that AQA requires that an AEL must specify GHG emission measurements and reporting requirements,²⁴³ and the 2012 Framework for Air Quality Management acknowledges that "*in view of this, specialist air quality impact*

²⁴⁰ Page 13, Long Term Adaptation Scenarios: Summary for Policy Makers.

²⁴¹ See <http://climateactiontracker.org/countries/southafrica.html>.

²⁴² If the Project consumes consume between 3 and 3.7 Mt/year as stated in the EIR, multiply by 1.88 for CO₂ emissions = 5.6 to 7 Mt. However, the Update EIR also states that 12,500 t coal will be transported a day x 365 = 4.5 Mt/y of coal. This would make the total emissions 8.46 Mt CO₂ eq/y.

²⁴³ Section 43(1)(l) AQA.

*assessments must consider greenhouse gas emissions as well.*²⁴⁴ While the assessment of climate change impacts is not yet specifically regulated, the Thabametsi judgment makes clear that NEMA requires a full assessment of climate change impacts as part of an EIA.

217. The Thabametsi case is pivotal in this regard as it confirms that NEMA requires an assessment of climate change impacts as part of an EIA. As specified above, a climate change impact assessment require more than a mere quantification of GHG emissions. It requires an assessment of *inter alia*:

217.1. The GHGs to be emitted by the Project, including indirect and full life-cycle emissions; cumulative GHG emissions;

217.2. the environmental and social cost of the GHG emissions;

217.3. how these GHG emissions and the proposed activity will contribute to South Africa's vulnerability to climate change. In other words, how predicted climate change effects on the environment and society – at both national level and at the scale of the Project area - will be aggravated by the Project's impacts; and

217.4. the ways in which the effects of climate change will impact on the project, including the effect on the water resources necessary for the project and the likelihood of the project being unable to operate for its full expected lifespan.

218. The Updated EIR, makes no mention of climate change, other than:

218.1. to record that the First Appellant had commented that a climate impact study was required (although the First Appellant referenced Thabametsi, the intention was to confirm that a climate change impact is required for Namane as well – this should have been evident to the environmental assessment practitioner); and

218.2. listing climate change as a potential social impact under the potential cumulative impacts of the power station;²⁴⁵

²⁴⁴ Paragraph 5.5.3.7, page 80, 2012 National Framework for Air Quality Management.

²⁴⁵ Page 402, the Updated EIR.

219. Section 12 of the Updated EIR is wholly inadequate in this regard, and simply states, in respect of air quality, that “*the proposed Project is located within the footprint demarcated as the Waterberg Air Quality Priority Area. Industrial sources in the area are the highest contributors of SO₂, NO₂ and CO, with mining as the highest contributor of particulate matter – TSP and PM₁₀. The real and future threats to the ambient air quality of the area are attributed to the planned expansion of energy-based projects and coal mining in the Waterberg District Municipality. This future rise in emissions will add on to current background pollutants with potential increase in exposure and impacts on human and surrounding environments*”.²⁴⁶
220. The Air Quality Report (appendix F to the Updated EIR) states that “*other major pollutants listed as applicable to power stations include carbon monoxide (CO), carbon dioxide (CO₂) but **these were not modelled***” (own emphasis).²⁴⁷ Evidently, no attempt has been made to even quantify the amount of CO₂ that will be emitted by the Project. This is unacceptable, particularly given the significant contribution to GHG emissions made by coal-fired power stations and South Africa’s vulnerability to the impacts of climate change.
221. In relation to the social impacts, there is one sentence regarding climate change; it states “*potential impact on climate change*”.²⁴⁸
222. It cannot be denied that coal-fired power stations contribute significantly to climate change. This is confirmed in the Thabametsi judgment, which states that “*coal-fired power stations ... **not only contribute to climate change but are also at risk from the consequences of climate change. As water scarcity increases due to climate change, this will place electricity generation at risk, as it is a highly water intensive industry***”.²⁴⁹

²⁴⁶ EIR June 2016 page 400, Table 12–1.

²⁴⁷ Page 69, Air Quality Report, Appendix F to the Updated EIR.

²⁴⁸ EIR June 2016 page 402, Table 12–1.

²⁴⁹ Para 25.

223. Even Thabametsi’s own draft climate change impact assessment report (“the Thabametsi report”) states that:

223.1. the magnitude of the power station’s emissions (8.2 million tons of CO₂ equivalent per year) is “very large”, based on a GHG magnitude scale drawing from various international lender organisation standards;

223.2. the impacts of climate change - particularly on water availability, water quality and temperature increases - are likely to pose a high risk to the Thabametsi power station in the short to long-term future; and

223.3. drought conditions have historically negatively impacted local communities, including farmers and other rural residents directly dependent on water supplies for cattle farming and other agriculture in the Lephalale region. Additional water stress may bring about increased community concerns and tension, and the increased dry spells/drought events will affect communities and may threaten Thabametsi’s “social licence to operate”.²⁵⁰

224. Given that Namane will be located in the same area as Thabametsi and as it is also a coal-fired power station under the CBIPPPP, it would not be irrational to presume that Namane will have similar impacts, and be similarly impacted, from a climate change perspective.

225. In this regard it is important to note that the Thabametsi report highlights the numerous design and technology inefficiencies of the DOE CBIPPPP requirements, stating that *“improved thermal efficiencies and lower emissions intensities for coal fired power plants can be achieved through the use of supercritical steam technologies. However, such technologies are not feasible for the plant, which is designed to meet the DoE’s Coal Baseload IPP key requirements in relation to capacity (individual projects are restricted to 600 MW), redundancy (which should be maximised, reflected in the selected configuration of four 150 MW boilers and two 300 MW steam units per 600 MW phase for Thabametsi), and low cost of*

²⁵⁰ Thabametsi’s draft climate change impact assessment can be accessed here <http://www.savannahsa.com/projects/project.php?project=438>.

*generation (CFB plants are able to use lower quality, cheaper coal).*²⁵¹ This demonstrates that the IPP coal plants are not as efficient as they could be, and these plants will be emitting more GHGs than they would, had more carbon-efficient requirements been prescribed by the DOE. Instead, the new CBIPPPP plants will be as carbon-intensive and dirty as the current Eskom plants, as Thabametsi only represents an improvement in emissions intensity compared to Eskom's three oldest plants, Camden, Hendrina and Komati, which are soon due for decommissioning.²⁵²

226. It is submitted that water availability, amongst other things, is a severe climate change concern for South Africa. The White Paper confirms that *“based on current projections South Africa will exceed the limits of economically viable land-based water resources by 2050. The adequate supply of water for many areas can be sustained only if immediate actions are taken to stave off imminent shortages.”*²⁵³

227. The Long Term Adaptation Scenarios (LTAS)²⁵⁴ aims to respond to the White Paper by developing national and sub-national adaptation scenarios for South Africa under plausible future climate conditions and development pathways. The LTAS reports acknowledge that impacts on South Africa are likely to be felt primarily via effects on water resources.²⁵⁵ The LTAS report on implications for the water sector states that *“At present, specific provisions for climate change adaptation have been made in very few of the water resources planning tools. There are some early attempts that have simulated simple scenarios of changed surface water supply in reconciliation studies”*²⁵⁶

²⁵¹ Thabametsi GHG Impact Report, p2 available at <http://www.savannahsa.com/projects/project.php?project=438>. See also p30-31.

²⁵² P51, Thabametsi GHG Impact Assessment, ERM, January 2017. Available at <http://www.savannahsa.com/projects/project.php?project=438>.

²⁵³ Page 17, section 5.2: Water, National Climate Change Response White Paper.

²⁵⁴ See

https://www.environment.gov.za/sites/default/files/docs/ltasphase2report7_longterm_adaptationscenarios.pdf and https://www.environment.gov.za/sites/default/files/docs/implications_waterbookV4.pdf.

²⁵⁵ Page 6, Long Term Adaptation Strategies: Summary for Policy-Makers. Available at <http://www.sanbi.org/sites/default/files/documents/documents/ltassummary-policy-makers2013high-res.pdf>

²⁵⁶ Page 6, Long Term Adaptation Strategies: Summary for Policy-Makers. Available at <http://www.sanbi.org/sites/default/files/documents/documents/ltassummary-policy-makers2013high-res.pdf>

228. As already stated above, the MCWAP is a project initiated by the LDWAS to supply industry and residents in the Waterberg district with water. Future water quantities were ascertained by the Reconciliation Strategy for the Crocodile West River System, which did not incorporate climate change considerations as a variable when reconciling available water resources with the needs of water users.
229. The LTAS records that *“development aspirations in South Africa will likely be influenced by opportunities and constraints that arise from climate change impacts on the water sector. Key decisions would benefit from considering the implications of a range of possible climate-water futures facing South Africa.”*²⁵⁷
230. The region of the Crocodile West and the Mokolo catchment, which is in the north of South Africa, is deemed to be at high risk from climate change by the LTAS, particularly in terms of reduced runoff.²⁵⁸ The LTAS acknowledges that *“under a drier future scenario, significant trade-offs are likely to occur between developmental aspirations, particularly in terms of the allocation between agricultural and urban industrial water use, linked to the marginal costs of enhancing water supply. These constraints are most likely to be experienced in central, northern and south-western parts of South Africa, with significant social, economic and ecological consequences through restricting the range of viable national development pathways.”*²⁵⁹
231. The Updated EIR indicates that water will be obtained from boreholes and the pans in the area. It is unclear how feasible this would be. The Project will need a WU, and, as indicated, the Project is in a water-scarce area within the MCWAP.
232. Reports have shown that access to water in the area can be anticipated to be a problem in the future. The Updated EIR fails to indicate how this problem will be addressed, particularly in the event that the allocated water for this project and mine

²⁵⁷ Page 6, Long Term Adaptation Scenarios: Summary for Policy Makers. Available at

<http://www.sanbi.org/sites/default/files/documents/documents/ltassummary-policy-makers2013high-res.pdf>

²⁵⁸ Page 31, Climate Change Implications for the Water Sector in South Africa, LTAS Phase 1, Technical Report 2 of 6, October 2013. Available at

https://www.environment.gov.za/sites/default/files/docs/implications_waterbookV4.pdf.

²⁵⁹ Page 6, Long Terms Adaptation Scenarios: Summary for Policy Makers, October 2013.

is insufficient to support both projects. In the circumstances, it is premature for the authorisation to have been granted.

233. The South African Government acknowledged the risks of climate change by adopting the White Paper. It confirms that “*the policy outlined in this White Paper embodies South Africa’s commitment to a fair contribution to stabilising global GHG concentrations in the atmosphere and to protecting the country and its people from the impacts of inevitable climate change.*”²⁶⁰ The White Paper includes a National Climate Change Response Strategy (“the climate change response strategy”), which has listed, as one of its strategic priorities, the need to “*prioritise the mainstreaming of climate change considerations and responses into all relevant sector, national, provincial and local planning regimes such as, but not limited to, the Industrial Policy Action Plan, Integrated Resource Plan for Electricity Generation, Provincial Growth and Development Plans, and Integrated Development Plans.*”²⁶¹ This White Paper, as a national policy document, speaks to and should direct decision-making in respect of authorisations for any developments.

234. The failure to consider climate change impacts is a fatal flaw and shortcoming of the Updated EIR and the decision of the First Respondent. This failure shows a lack of policy coherence with the national climate change response policy and a disregard for the provisions of AQA and NEMA which require consideration of all relevant considerations and potentially significant environmental impacts, which would include climate change, as confirmed in the Thabametsi judgment, as well as international obligations and GHG emissions as set out above. In this particular instance, insofar as climate change impacts are concerned, diminishing of water resources will, no doubt, have a significant impact on this Project, as well as other projects and people living within the area and the surrounding environment – this should have been considered in the Updated EIR and by the First Respondent. Yet the climate change impacts of this Project have not been considered at all.

²⁶⁰ Page 10, Introduction, National Climate Change Response White Paper.

²⁶¹ Page 15, National Climate Change Response Strategy, National Climate Change Response White Paper.

235. In light of the Thabmetse judgment, it is submitted that this appeal should succeed on the basis that no climate change study was done, and simply acknowledging that there is a potential impact may result, is wholly insufficient.

Fifth Ground of Appeal: The Need for and Desirability of the Project

236. Regulation 18 of the EIA Regulations, 2014 requires that the competent authority has regard for sections 24O and 24(4) of NEMA as well as “*the need for and desirability of the undertaking of the proposed activity*”. This requirement is supported by the DEA’s Guideline on Need and Desirability,²⁶² which, *inter alia*, illustrates the relationship amongst the financial viability, sustainability and need and desirability of a proposed activity:

“Financial viability must be considered within the context of justifiable economic development, measured against the broader societal short-term and long-term needs. While the financial viability considerations of the private developer might indicate if a development is “do-able”, the “need and desirability” will be determined by considering the broader community’s needs and interests as reflected in an IDP [Integrated Development Plan], SDF [Spatial Development Framework] and EMF [Environmental Management Framework] for the area, and as determined by the EIA. While the importance of job creation and economic growth for South Africa cannot be denied, the Constitution calls for justifiable economic development. The specific needs of the broader community must therefore be considered together with the opportunity costs and distributional consequences in order to determine whether or not the development will result in the securing of ecological sustainable development and the promotion of justifiable social and economic development - in other words to ensure that the development will be socially, economically and environmentally sustainable.”²⁶³

²⁶² GN 891 of 20 October 2014.

²⁶³ 2014 Need and Desirability Guideline at page 11.

237. The Updated EIR, under the heading ‘Project Motivation and Needs and Desirability’ relies on the Ministerial Determination of 2012 to attempt to establish the ‘need’ for the Project.²⁶⁴
238. It states further that the desirability of the project, according to the Updated EIR, includes leveraging the “*IPP investment to deal with South Africa’s current and anticipated electricity supply/demand imbalances*” and that “*on a broader scale, the socio-economic benefits from the construction and operational phases of the Project will contribute to the local economy on a micro- and macro-economic level through support of informal and formal traders*” and that the “*local and regional communities may benefit directly from the approval of the project*” (own emphasis).²⁶⁵
239. It must be pointed out, however, that the requirements of the Ministerial Determination (and the IRP 2010) are not tantamount to and cannot be equated with the need and desirability of the authorised activities for the Project.
240. The determination of need under a nationwide electricity planning process that does not necessarily take the environment and social impacts into consideration, cannot be interchanged with the determination of need and desirability required in terms of the EIA process. The need and desirability of this Project must be independently considered for the environmental assessment. The assessment cannot simply adopt the need as articulated in the IRP.
241. In any event, the Thabametsi judgment confirms that “*policy instruments developed by the Department of Energy cannot alter the requirements of environmental legislation for relevant climate change factors to be considered.*”²⁶⁶
242. Furthermore, many of the anticipated, stipulated ‘positive effects’ rarely materialise. In any event, the establishment of another coal-fired power station is not a feasible solution to South Africa’s current and even immediate energy needs, which would

²⁶⁴ Pages 56 – 57, Updated EIR.

²⁶⁵ EIR June 2016 pages 56 and 57.

²⁶⁶ Paras 95 and 96.

be much better addressed through securing renewable energy as a healthier and long-term, more cost-effective source of energy that can come online much more quickly (and with far fewer impacts on the environment - including soil, air, water, climate) and human health than a coal-fired power station.

Sixth Ground of Appeal: The Conditions of the Authorisation are Vague and Unenforceable

243. The conditions of the Authorisation are contained in section 17 of the Authorisation. It is submitted that these are either vague and/or unenforceable in that:

- 243.1. The general conditions pertaining to the Authorisation are vague and lacking in detail. Furthermore they make reference to conditions in the environmental management programme (EMPr). Since the authorisation provides that the EMPr is an extension of its conditions and non-compliance with the EMPr constitutes non-compliance with the authorisation, it is submitted that any amendments to the EMPr must comply with the relevant provisions of NEMA and the EIA Regulations;
- 243.2. Condition 17.2.2 of the Authorisation requires that “*the design drawing [of the ash disposal facility] must be approved by the Director before construction and disposal may commence*”.²⁶⁷ This leaves uncertainty in respect of the Authorisation, and it is arguable that the Authorisation has been granted without a prior opportunity to consider the ash dump design, a vital aspect of the project, particularly with regard to the positioning of the ash dump;
- 243.3. Condition 17.2.1 states that “[t]he site or any portion thereof may only be used for the disposal of permissible waste (Ash in Class C) if the site or any such portion has been constructed or developed according to the conditions listed in 17.2 of this authorisation”. Given that this sentence is part of condition 17.2, it is not clear what the subclause is referring to. The wording of this condition does not make sense and the result is that it is unenforceable;

²⁶⁷ Integrated Environmental Authorisation, 28 February 2017.

- 243.4. Condition 17.2.4 states “*all construction material must comply with relevant South African National specification, or any prescribed management practice or standards which ensure relevant performance*”.²⁶⁸ This condition fails to describe what constitutes ‘relevant performance’ and without listing the prescribed management practice or standards it refers to, it is vague and unenforceable;
- 243.5. Condition 17.2.13 provides that “*the holder of environmental authorisation must ensure that construction of the Ash Disposal Facility (ADF) at recommended Alternative Site 1 stays out of the 100m buffer zone. Furthermore, all watercourses at this site must be identified within six months of assurance of this authorisation*”. This condition is vague. Furthermore, if this condition provides that watercourses must be identified within six months of issuance of the Authorisation, it is arguable that the Authorisation has been granted without the vital information on water courses at the site. This leaves uncertainty in respect of the Authorisation;
- 243.6. Condition 17.2.15 provides that “[t]he ADF pollution control dams or any effluent storage facility must not be constructed on geological features such as lineaments, dykes, fault lines, shallow water table or on areas with the potential for increased infiltration to groundwater and must be constructed using carbonaceous (carbon-containing rock) materials.” This condition requires more detail and further specific requirements, as at Plan 9, appendix A to the EIR June 2016 indicates that at least one fault line has been observed on the site. The Proposed Plant Infrastructure Plan (Plan 5) attached in Appendix 5, fails to indicate the location of potential pollution control dams. This detail is necessary and should be included in the layout plan for the proposed plant. Given the fact that there is a specific requirement related to the location of the pollution control dam, the First Respondent, as decision-maker would necessarily have had to have that information before him when making the decision. A new layout plan should be prepared and evidence provided that this condition will be complied with. This required amendment to the proposed project is considered substantive, for several reasons, including; visual impact, operation design, access and

²⁶⁸ Integrated Environmental Authorisation 28 February 2017.

infrastructure and other biological factors pertaining to the Project, which are not listed;

243.7. Condition 17.3.1 stipulates a requirement that “a *groundwater management plan in terms of quality and quantity must be implemented*” and that “*monitoring boreholes up-gradient of the Ash Disposal Facility (ADF), coal stockpile facility, pollution control dams or any effluent storage facilities during operation and decommissioning*”. In addition, condition 17.3.3 provides that “*additional groundwater monitoring borehole which must be incorporated into existing monitoring programme must be sited and drilled to a depth that penetrates the whole aquifer system for both shallow and deep groundwater*”. Condition 17.3.8 stipulates “*groundwater monitoring programmes defining the frequency of measurements, parameters to be monitored, database and reporting must be developed and implemented*”. The conditions outlined in 17.3, including the specific clauses quoted above, are too vague, in that these fail to specify what should be included in the management plans and monitoring programmes, as well as when this is required to be done, the positioning of the boreholes and other details such as their depth. Furthermore, once again, this condition does not coincide with plan diagram 5 referred to above, and attached as appendix 5 to the Updated EIR, although it could have an impact on the layout of the facility; and

243.8. Condition 17.4 on surface water monitoring is vague and unenforceable. It simply defers all monitoring activities and conditions in respect of surface water to “*the competent authority*”. Given that the proposed location of the Project is in a water-scarce area, and that there are numerous pans in and around the proposed location, omitting details about surface water monitoring leaves uncertainty with respect to this Authorisation. This requires further clarity, including who would be responsible for monitoring surface water, within what time period the monitoring should commence, and how it will be enforced.

244. Without clear and targeted conditions, there is no chance of compliance, monitoring and enforcement in regard to the Authorisation, which renders the specific conditions

unenforceable. This is another reason that the Authorisation should not have been granted.

Seventh Ground of Appeal: The First Respondent's Granting of the Authorisation is in Contravention of PAJA

245. Section 33 of the Constitution recognises that everyone has the right to administrative action that is lawful, reasonable and procedurally fair. PAJA seeks to give effect to this right.

246. The First Respondent's decision to issue the Authorisation for the Project constitutes administrative action.

247. Section 6(2) of PAJA provides that a court or tribunal has the power to judicially review administrative action if, *inter alia*:

247.1. irrelevant considerations were taken into account or relevant considerations were not considered;

247.2. the action itself contravenes a law or is not authorised by an empowering provision;

247.3. the action itself is not rationally connected to the information before the administrator; and

247.4. the exercise of the power or the performance of the function authorised by the empowering provision, in pursuance of which administrative action was purportedly taken, is so unreasonable that no reasonable person could have so exercised the power or performed the function.

*I. Irrelevant considerations were taken into account or relevant considerations were not considered*²⁶⁹

248. As already mentioned, it is submitted that the First Respondent failed to taken into account relevant considerations such as:

²⁶⁹ Section 6(2)(e)(iii) PAJA.

- 248.1. the cumulative impacts of the Project and other developments in the region;
- 248.2. the air quality impacts of the Project;
- 248.3. the impacts of the Project on the water resources in the area;
- 248.4. the health impacts of the Project;
- 248.5. the climate change impacts of the Project; and
- 248.6. feasible and reasonable alternatives; including the “no-go option”.

249. In addition, the Updated EIR claims that the Project will be beneficial for job creation and will benefit the economy; yet it fails to take into consideration the health impacts, climate change impacts, and ultimate external costs that will have to be borne by the affected communities and the state as a result of the project operations.

*II. The action itself contravenes a law or is not authorised by an empowering provision*²⁷⁰

250. It is submitted that, for the reasons outlined above, this decision constitutes a direct contravention of the constitutional right to an environment not harmful to one’s health or well-being and to “*have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –*

(i) prevent pollution and ecological degradation;

(ii) promote conservation; and

*(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”*²⁷¹

251. As submitted above, it is recorded that this decision contravenes section 24O(1) of NEMA (as the framework legislation to give effect to the constitutional environmental right), which requires that the Minister or MEC responsible must, in considering an application, comply with the provisions of NEMA and take into account all relevant

²⁷⁰ Section 6(2)(f)(i) PAJA.

²⁷¹ Section 24(a) and (b), the Constitution of the Republic of South Africa, 108 of 1996.

factors including any pollution or environmental degradation – the Thabametsi judgment makes clear that this would also include climate change. It is submitted that the First Respondent has failed to take into account the relevant factors listed in section 24O(1)(b) NEMA in considering the application.

252. The Authorisation also contravenes the requirements of section 51 NEMWA for a WML.

III. The action itself is not rationally connected to the information before the administrator²⁷²

253. The information in the Updated EIR indicates, *inter alia*, that:

253.1. there is a high risk that air quality will be impacted by the Project; and

253.2. water availability is likely to be a concern in the future.

254. In granting the Authorisation, the First Respondent demonstrates that he failed to give adequate consideration to the above points, as well as other relevant considerations, in the Updated EIR. As a result, this decision is not rationally connected to the information that was before the First Respondent.

IV. The exercise of the power or the performance of the function authorised by the empowering provision, in pursuance of which administrative action was purportedly taken, is so unreasonable that no reasonable person could have so exercised the power or performed the function²⁷³

255. In the circumstances, it is submitted that the decision is unreasonable in that it:

255.1. fails to give recognition to the long-term and cumulative impacts on the resources, particularly water, in the vicinity of the Project and to attach

²⁷² Section 6(2)(f)(ii)(bb) PAJA.

²⁷³ Section 6(2)(h) PAJA.

- sufficient weight to the severity of these impacts (impacts likely to increase in severity as a result of climate change);
- 255.2. fails to attach sufficient weight to the significant health impacts likely to be brought about as a result of the project;
- 255.3. fails to take into account climate change; and
- 255.4. fails to apply the principles and provisions of NEMA and to give recognition to the duty to uphold the constitutional right to an environment not harmful to health or well-being.²⁷⁴

CONCLUSION

256. The First Respondent's decision to authorise the Project is unlawful, in that it failed to comply with the Constitution; NEMA; AQA; NEMWA; and PAJA.
257. For all of these reasons, the Appellants submit that the appeal should succeed and that the Authorisation granted to the Second Respondent by the First Respondent should be set aside.
258. The Appellants further submit the Chief Director's decision constitutes unlawful conduct as set out above and there are grounds for review under PAJA.
259. The Appellants further reserve their rights to approach a court to contest the constitutional validity of the Appeal Regulations and the NEMA EIA Regulations, 2014.

²⁷⁴ Section 24 of the Constitution of the Republic of South Africa 108 of 1996.

DATED at CAPE TOWN on this the 4th day of APRIL 2017.



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