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11 September 2018

Dear Marissa Botha,

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**COMMENTS ON THE APPLICATION FOR POSTPONEMENT OF THE MINIMUM EMISSION STANDARDS (MES) FOR 14 OF ESKOM'S COAL AND LIQUID FUEL-FIRED POWER STATIONS, AUGUST 2018**

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Project 90 by 2030 is an environmental organisation that aims to inspire and mobilise a low carbon generation. We work with individuals, organisations, and decision makers to identify actions that can reduce their impact on the environment. Our specific focus in pushing for low-carbon actions in South Africa is centred on developing environmental leadership in youth, enhancing energy and water security in communities and advocating for a transition to an equitable, low-carbon energy system.

**Summary**

In short, it is unacceptable for Eskom to apply for this postponement and there should be government intervention to make sure that the health of our people and the environment takes priority. If Eskom are unable to meet the MES, then the decommissioning of those facilities must be brought forward and the required electricity capacity sourced from renewable sources. The suggestions made in the Background Information Document (BID) as to why Eskom cannot meet the minimum emissions standards (MES) should rather be viewed as reasons to move away from the use of coal for electricity generation. This reinforces the urgent need for national government to develop and implement a plan for a Just Energy Transition (JET) away from fossil fuels.

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Board of Governors: Lorna Fuller (Director), Glen Tyler (Chairperson),  
Clifford Nxomani, Mpumelelo Ncwadi, Mark New, Zunaid Moolla and Benita Moolman

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## **Main points**

### **1. Constitutional violation**

Section 24 of the Constitution of the Republic of South Africa, 1996:

“Everyone has the right to an environment that is not harmful to their 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 prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

The MES are a measure that functions to reduce the pollution and the impact on human health from Eskom power stations. In this regard, to attempt to avoid meeting the MES via this postponement application, Eskom are in opposition to a law that upholds our Constitution.

### **2. Geography and air quality**

The coal power stations listed in the BID are in the Vaal Triangle and the Mpumalanga Highveld. The Air Quality Act declared both these as air pollution priority areas by 2007, and this meant that urgent action was needed to improve the air quality in these areas. The Highveld Priority Area (HPA), where the majority of Eskom’s coal power stations are, does not meet the National Ambient Air Quality Standards (NAAQS). This application for further postponement of MES compliance is counter to the objectives of the Air Quality Act, and on this basis should not be considered.

### **3. Eskom have had ample time to prepare**

The MES formed part of the List of Activities under the National Environmental Management: Air Quality Act and came into force in April 2010<sup>1</sup>. Eskom have, therefore, had over 8 years to prepare, but have chosen rather to apply for postponements. Furthermore, the process of putting together the List of Activities commenced in about 2004. Over a 5 year period Eskom and other stakeholders were involved in determining the MES, so Eskom effectively had 14 years warning about the changes that would be required. The fact that Eskom have been granted a 5 year postponement already for existing plant standards (as noted in the BID) is more than what should have been given, so a further application for the new plant standards should be rejected.

### **4. The MES are weak by international standards**

Compared with international standards, the South African MES for coal fired power stations are significantly weaker than many other countries. In this context, weak MES means that higher amounts of pollutant per volume are allowed to be emitted from a power plant. Analysis of consolidated data from a report <sup>2</sup> released in July 2016 shows this trend. For example, even our new MES (applicable from April 2020) for NO<sub>x</sub> is 7.5 times higher than that allowed by China since 2011. Our existing MES (applicable from April 2015) is 11 times higher.

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<sup>1</sup>

[https://www.environment.gov.za/sites/default/files/gazetted\\_notices/nemaqa\\_listofactivities\\_g33064gon248\\_0.pdf](https://www.environment.gov.za/sites/default/files/gazetted_notices/nemaqa_listofactivities_g33064gon248_0.pdf)

<sup>2</sup>

<https://www.usea.org/sites/default/files/Emission%20standards%20and%20control%20of%20PM%202.5%20from%20coal%20fired%20power%20plant%20-ccc267.pdf>

Comparing the same values against China for SO<sub>2</sub> we get 5 and 17.5 times higher respectively. From Table 28 of the report, the overall new *and* existing emissions standards for NO<sub>x</sub> and SO<sub>x</sub> in South Africa are weaker than China, Germany, India, Japan, USA and European Union. While this report only looked at 10 countries or regions, South Africa ranked last for existing our existing NO<sub>x</sub> and SO<sub>x</sub> MES, second last for new NO<sub>x</sub> MES and third last for new SO<sub>x</sub>.

The take home message is that despite having some of the weakest coal power stations MES in the world, Eskom is still wanting to postpone compliance. If we had very strict MES, then the postponement could be somewhat understood, but in fact we have the opposite.

### **5. Indefinite non-compliance rather than postponement.**

While this application is couched as a postponement, if you look at Table 4 in the BID, by the year 2030 Eskom does not plan to have *any* of its completed coal power stations<sup>3</sup> compliant with new SO<sub>2</sub> MES and only Matimba will be complaint with new NO<sub>x</sub>. When viewed in conjunction with Point 4 of this submission (about the new MES being weak by international standards), and Point 3 (that these standards were published in 2010) we see that over a 20 year period Eskom does not plan to have 92% of its existing fleet compliant with NO<sub>x</sub> and SO<sub>2</sub> emissions standards, that are among the weakest in the world. A number of power stations are never planned to be compliant before decommissioning starts.

Considering these factors, it appears that Eskom is, in many cases, trying to be exempt from meeting MES for various pollutants at its power stations.

It is unacceptable that this situation of exemption be allowed to occur.

### **6. Lack of information**

The BID is meant to contain information that allows the public to have proper input into the process. However, there are key items missing and just a few are listed here:

- The BID makes no mention of the Highveld Priority Area (HPA), where the majority of Eskom's coal power stations are. This is critical information as the air quality in the HPA fails to meet the National Ambient Air Quality Standards (NAAQS). The fact that the HPA is not in compliance with NAAQS is reason enough in itself for the entire postponement application to be rejected, and yet none of this is in the BID.
- The BID does not provide proper explanation as to why Eskom is unable to comply with the MES. On page 1 of the BID it just says "but *due to various existing constraints*, it is not possible for most of the power stations, to comply on time or, in some cases, indefinitely, with the more stringent limits that come into effect from 2020."
- We feel the BID should include what programs have been initiated, what money has been spent, what obstacles were encountered, what was done to overcome such obstacles, in relation to MES compliance.
- The BID should include details of what finance plans (including amounts) were put in place for the programmes to meet the MES and what funds were set aside. If this were never done, then this also important information for the public.

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<sup>3</sup> Medupi and Kusile are still under construction

- The BID should give details on any applicable penalties for non-compliance, and if these are absent then explain why.

## 7. Compliance costs indicate decommissioning should be brought forward

In the BID there is indication that Eskom view the financial costs of compliance as too high. Other than the moral argument that human and environmental health is more important than money, if Eskom cannot afford to meet the legal MES, then decommissioning of the coal fired power stations should be brought forward as soon possible.

Wind and solar are now the cheapest form of new build electricity in South Africa and form the basis of a least-cost energy system for our country<sup>4</sup>. With further support and investment the levelised cost of energy (LCOE) from these renewables should drop below the marginal cost of Eskom's coal based electricity (in line with international trends<sup>5</sup>). In this case the country will save money and reduce electricity prices by moving away from coal.

All decommissioning must be done in conjunction with a Just Energy Transition (JET) Plan, backed by National Government, to look after workers in the coal sector. The JET plan must address the critical issues of potential job losses in the fossil fuel sector and the mitigation measures of re-skilling, re-training and job placement so that these workers can get suitable alternative employment.

The advantages for South Africa of decommissioning coal fired power stations earlier include:

- Improved air and water quality, particularly in Mpumalanga.
- Contribution to our international climate change commitments
- Earlier removal of potential stranded assets from Eskom's balance sheet
- Stimulation of the renewable energy industry
- Faster transition to a low carbon economy

## Conclusion

The BID does not contain enough information for a meaningful first round of public participation. Furthermore, having the first round of public consultation without the results of properly conducted AIR seems to indicate that the current air quality in the affected areas is not a priority, which it must be, especially for those living in the areas where a number of the consultations are taking place.

The HPA does not currently meet the NAAQS and that is reason enough to reject this application. Even if the air quality in the HPA was acceptable in terms of NO<sub>x</sub>, SO<sub>2</sub> and PM, Eskom would then need to prove that their non-compliance with the MES would still result in air quality that was acceptable in terms of the NAAQS, if a postponement application is to be entertained. This has not been done.

<sup>4</sup> [https://www.csir.co.za/sites/default/files/Documents/20170331CSIR\\_EC\\_DOE.pdf](https://www.csir.co.za/sites/default/files/Documents/20170331CSIR_EC_DOE.pdf)

<sup>5</sup> <https://www.lazard.com/perspective/levelized-cost-of-energy-2017/> "As LCOE values for alternative energy technologies continue to decline, in some scenarios the full-lifecycle costs of building and operating renewables-based projects have dropped below the operating costs alone of conventional generation technologies such as coal or nuclear. This is expected to lead to ongoing and significant deployment of alternative energy capacity"

The overall message that comes out of the BID is that, as far as possible, Eskom will try to avoid taking measures to meet the various MES. The Government must ensure that as a state owned entity, Eskom is held to account and that activities that directly affect our people and the environment are prioritized.

Our MES are weak by international standards, and since Eskom has had plenty of time to prepare, there is no reason to entertain a postponement application. If Eskom is unable to meet the MES in the timeframes stipulated, then Government must intervene. The decommissioning dates should be revised forward and the electricity generation capacity replaced by renewable sources. This is technically possible, but it must be done in the context of a JET plan.

Yours sincerely,



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