



**The Honourable Mr Fikile Majola**  
**Chairperson**  
Portfolio Committee on Energy  
Per email: [fmajola@parliament.gov.za](mailto:fmajola@parliament.gov.za)

**Copied to:**

**Mr Arico Kotze**  
**Secretary**  
Portfolio Committee on Energy  
Per email: [akotze@parliament.gov.za](mailto:akotze@parliament.gov.za)

15 June 2018

Dear Honourable Majola

**RELEVANT INFORMATION CONCERNING THE COAL IPPS – A STUDY BY THE ENERGY RESEARCH CENTRE**

1. We address you as the Life After Coal/Impilo Ngaphandle Kwamalahle Campaign – made up of the Centre for Environmental Rights (CER), groundWork (gW) and Earthlife Africa (“Earthlife”).<sup>1</sup>
2. The Life After Coal Campaign aims to discourage investment in new coal-fired power stations and mines; accelerate the retirement of South Africa’s coal infrastructure; and enable a just transition to renewable energy systems for the people.
3. We refer to the CER’s correspondence of 29 November 2017 which highlighted our various concerns around the Integrated Resource Plan for Electricity: Update, Base-Case Results and Observations (“**draft IRP Update**”) and the draft Integrated Energy Plan (“**IEP**”).<sup>2</sup> A copy of this letter is attached.
4. The letter noted, amongst our other concerns, the significant Greenhouse Gas (GHG) emissions that the two preferred bidders under the Coal Baseload independent power producer (IPP) Procurement Programme i.e. the Thabametsi independent power producer (IPP) coal-fired power

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<sup>1</sup> Website available at <https://lifeaftercoal.org.za/>

<sup>2</sup> [https://cer.org.za/wp-content/uploads/2017/11/LAC-letter-to-PCE\\_29-Nov-2017.pdf](https://cer.org.za/wp-content/uploads/2017/11/LAC-letter-to-PCE_29-Nov-2017.pdf).

station (“**Thabametsi**”) and the Khanyisa IPP coal-fired power station (“**Khanyisa**”) will have, and requested that the Department of Energy take these findings into account when finalising the IRP Update and IEP.

5. In support of this claim and with further regard to necessary considerations to be taken into account, we wish to bring to your attention a recent study by the University of Cape Town’s Energy Research Centre (ERC), entitled “*An assessment of new coal plants in South Africa’s electricity future: the cost, emissions and supply security implications of the coal IPP programme*” (“**the ERC report**”). A copy of this report is attached.
6. The ERC report models several scenarios for an assessment of the effects of building Thabametsi (at 557MW) and Khanyisa (at 300MW) (“**the coal IPPs**”) – compared to a future electricity build plan that excludes them. The modelling investigates: supply security; the cost implications of the inclusion of the coal IPPs on the system relative to cheaper alternatives; the emission ‘lock-in’ from the plants; and the effects this has on South Africa meeting its long-term climate change commitments. According to the report, since a least-cost electricity build plan for South Africa **does not include new coal plants**, in each scenario, the coal IPPs had to be forced into the model in order to compare the effects on the system.
7. The findings of the ERC report are, *inter alia*, that:
  - 7.1. the proposed Thabametsi and Khanyisa coal-fired power stations will cost South Africa an additional **R19.68 billion** in comparison to a least-cost energy system;
  - 7.2. the coal IPPs are not needed to meet South Africa’s medium-term electricity demand, as alternate electricity sources i.e. wind, solar pv, and flexible gas generation are more economical; and
  - 7.3. the coal IPPs will increase greenhouse gas (GHG) emissions by **205,7Mt CO<sub>2</sub>eq** over the 30 year period of the power purchase agreements. This would negate the government’s GHG emission mitigation plans and efforts, including the expected savings of the entire Energy Efficiency Strategy to 2050. Even in a best-case scenario for the coal IPPs (with GHG emissions curtailed as far as possible), the two coal IPPs would still negate the emissions saved under the carbon tax and frustrate South Africa’s commitments under the Paris Agreement, through raising the costs of mitigation technology and requiring significant GHG emission reductions in the power and other sectors.
8. In short, the ERC report finds that the inclusion of the coal IPPs in South Africa’s electricity build plan raises the total system costs compared to a scenario without the coal IPPs. Similarly, in all scenarios, the coal IPPs increase GHG emissions. These increases, both in costs and in GHG emissions, are significant.
9. In relation to Eskom, the ERC report states that:
  - 9.1. “*Not only are the coal IPPs not required to meet demand, and not only do they raise costs, and increase emissions, but they also result in increasing pressure on Eskom. Building new coal plants in a situation of low demand means reducing the output of Eskom’s fleet, potentially accelerating the ‘utility death spiral’ in which Eskom already finds itself and*

***putting the electricity supply industry – and thus the South African economy – at risk***  
(emphasis added);<sup>3</sup> and

- 9.2. ***“When the coal IPPs are forced into the electricity build plan, this results in decreased use of existing coal plants (which are also cheaper than the coal IPPs), which puts raises (sic) costs overall and puts Eskom at risk”*** (emphasis added).<sup>4</sup>
10. ERC concludes that *“the implications of these findings are clear. South Africa is currently facing a large surplus in generation capacity, in particular inflexible base supply capacity. Eskom is facing a financial crisis and rising electricity prices will drive consumers away from the utility. Investments that unnecessarily increase costs in the electricity sector should be avoided.”*
11. The Life After Coal Campaign has always maintained that Thabametsi and Khanyisa are – financially, socially and environmentally – highly risky and harmful projects. To further elaborate:
- 11.1. both power stations will have significant and irreversible impacts for water, air and our climate. They will use large volumes of scarce water needed by communities and also put South Africa’s already vulnerable water resources at a high risk of pollution;
- 11.2. due to the technology proposed for both plants – these projects are incredibly GHG emission intensive, with an emission intensity almost 60% higher than Eskom’s Medupi and Kusile power stations;
- 11.3. these coal IPP projects do not provide a non-replaceable economic benefit. If and when additional electricity is needed, it would be preferable – and reasonable – to procure more renewable energy capacity, which would provide more jobs and clean and cheap electricity; and
- 11.4. South Africa does not need new coal-fired power capacity. These power stations will simply increase the costs of electricity for consumers.
12. Regulation 9 of the 2011 Electricity Regulations on New Generation Capacity GN R399 (GG 34262) requires that, before concluding power purchase agreement (PPA), the buyer (Eskom) or the procurer (the Department of Energy) must ensure that the PPA is **“value for money”**, namely that *“the new generation capacity project results in a net benefit to the prospective buyer (Eskom in this case) or to Government having regard to cost, price, quality, quantity, risk transfer or a combination thereof, but also where applicable to the Government’s policies in support of renewable energy”*.
13. The Request for Qualification and Proposals for New Generation Capacity under the Coal Baseload IPP Procurement Programme (RFP) states that the *“outcome of the consideration as to whether or not a project can deliver value for money, is required to produce an assessment that the **project is in the best interests of and delivers an acceptable outcome to the buyer (Eskom) and the Government acting on behalf of and in the best interests of the people of South Africa, including electricity users**”*.<sup>5</sup>
14. In relation to the requirement for the projects to be “value for money”, we dispute that this is the case. The ERC report shows that the coal IPPs will cost South Africa an additional R20 billion (not

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<sup>3</sup> P8, ERC report.

<sup>4</sup> P17, ERC report.

<sup>5</sup> P 59, 6.1.8.2, Part A RFP.

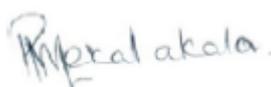
taking into account external costs and impacts) and will further destabilise Eskom's precarious financial position, We note further that should such instability intensify, it would have further knock-on effects for Treasury and electricity consumers.

15. In light of this, as well as the current excess electricity capacity, Eskom's dire financial position, and the high cost of electricity from the coal IPPs in comparison to the latest renewable IPPs,<sup>6</sup> we submit that the coal IPP projects would not be in Eskom's interest or in the interest of the people of South Africa.
16. We submit that decisions on our energy future must be taken with proper regard to what is in the best interests of all South Africans. In this regard, we have implored the Department of Energy to give the findings set out above serious consideration and use these to inform any decision taken in relation to national energy policy. We also urge the Portfolio Committee to use this information to scrutinise the Department's work on energy policy and to facilitate adequate public participation.
17. Should you wish to discuss these findings in further detail, please feel free to contact us.

Yours sincerely



**Robyn Hugo**  
Attorney and Programme Head:  
Pollution & Climate Change  
Centre for Environmental Rights  
[rhugo@cer.org.za](mailto:rhugo@cer.org.za)



**Makoma Lekalakala**  
Director  
Earthlife Africa Johannesburg  
[makoma@earthlife.org.za](mailto:makoma@earthlife.org.za)



**Bobby Peek**  
Director  
groundWork  
[bobby@groundwork.org.za](mailto:bobby@groundwork.org.za)

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<sup>6</sup> See [http://www.ee.co.za/wp-content/uploads/2016/10/New\\_Power\\_Generators\\_RSA-CSIR-14Oct2016.pdf](http://www.ee.co.za/wp-content/uploads/2016/10/New_Power_Generators_RSA-CSIR-14Oct2016.pdf) at p7.