



## mineral resources & energy

Department:  
Mineral Resources and Energy  
REPUBLIC OF SOUTH AFRICA

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Ms Nicole Loser  
Centre for Environmental Rights  
Springtime Studios  
1 Scott Road, Observatory  
**CAPE TOWN**  
7925

Dear Ms Loser,

### RESPONSE TO REQUEST FOR ACCESS TO INFORMATION IN TERMS OF THE PROMOTION TO ACCESS TO INFORMATION ACT 2 OF 2000

Your letter dated 13 December 2019 refers. Find below responses to your request.

1. Request for the Plexos modelling input and output data used for the Integrated Resource Plan for Electricity of 17 October 2019 ("IRP 2019"), to be made available and executable in formulas intact in Excel form, including, but not limited to:

*Response:* Assumptions that are used as assumptions are contained in the published IRP 2019 and draft IRP 2018.

- i. records of the explicit technology costs relied on for each technology in the IRP 2019 and the sources for these costs;  
*Response:* See attached Annexure A for technology costs. Source of Costs are referenced in the publicly available IRP2019
- ii. records of the modelling outputs of the annual greenhouse gas emissions under each scenario;  
*Response:* See attached Annexure B
- iii. records of the emissions abatement technology costs considered and incorporated into the IRP 2019 and the sources for these cost values;  
*Response:* Externality costs we obtained from the Department Integrated Energy Plan (IEP) process <http://www.energy.gov.za/files/IEP/2016/Integrated-Energy-Plan-Report.pdf>
- iv. records of the water use and greenhouse gas emissions data relied on for each scenario;

Response: See attached Annexure B

- v. the modelling outputs for the scenario with the annual constraint on renewable capacity;

Response: See attached Annexure C

- vi. the modelling outputs for the scenario without the annual constraint on renewable capacity;

Response: See attached Annexure C

2. The data and records that informed the emissions externality costs referred to in Table 2 (page 32) of the IRP 2019;

Response: Externality costs we obtained from the Department Integrated Energy Plan (IEP) process <http://www.energy.gov.za/files/IEP/2016/Integrated-Energy-Plan-Report.pdf>

3. Records reflecting the total cost output, and the resulting average tariff, of the least-cost scenario (the baseline for the IRP);

Response: Refer price path analysis in the publicly available IRP 2019

4. Records reflecting the incremental cost output and tariff increase of all scenarios of the IRP 2019, including, but not limited to, the recommended plan in the IRP 2019;

Response: Refer to the publicly available IRP 2019

5. Records of the costs and technology options that were considered in making the assumption in the IRP 2019 (at page 52) that “all new coal to power capacity beyond the already procured 900 MW will be in the form of clean coal technology”;

Response: See attached Annexure A

6. Records of the decisions to review the determinations made under the 2010 IRP - in particular the 2012 Ministerial Determination in terms of section 34 of the Electricity Regulation Act, 2006 (GN 1075) for 2500MW of new coal capacity - in reference to the statement on page 62 of the IRP 2019 that “Ministerial Determinations issued under the IRP2010 will be reviewed in consultation with NERSA, once the updated IRP is approved.”

Response: No review outside of IRP update process has taken place as the Determinations not implemented/procured have been overtaken by events and Determinations in line with IRP 2019 have being issued by the Minister for concurrence by NERSA.

7. Records of studies and considerations, including financial considerations, on the “supply and demand balance and the impact of load shedding on the economy” that were taken into account in making the recommendation against “shutting down of MES non-compliant power plants and Koeberg power station in 2024 (at the end of its design life)” (page 44);

Response: Refer to chapter 5 of IRP 2019 (starting from page 40). Also see attached Annexure D.

8. Records of considerations that were taken into account in reaching the decision (on page 46) that “the application of renewable build limits “smooths out” the capacity allocations for wind and solar PV which provides a constant pipeline of projects for investment; this addresses investor confidence”; and

Response: Refer to publicly available Draft IRP 2018 and see attached Annexure C.

9. The supporting documentation for the annual build limits of 1000 MW for PV and 1600 MW for wind and how they were calculated.

Response: Refer to publicly available Draft IRP 2018 and annexures of IRP 2019.

Yours Sincerely.



**Jacob Mbele**

**DDG – Programmes & Projects**

Date: 25/06/2020