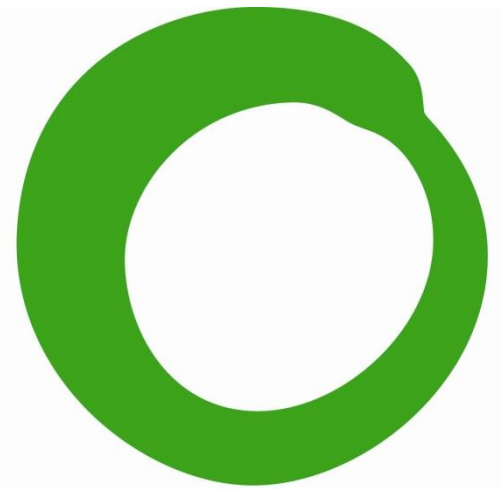




groundWork comments
Draft IEP report
October 2013



**Friends of
the Earth
South Africa**

Who groundWork works with

- People living in pollution hotspots in KZN, the Vaal Triangle and the Highveld.
- People Working on waste dumpsites as a means of livelihoods throughout SA.
- Most of us live next to the petrochemical plants, mines, metal industries and power stations that are responsible for South Africa's very high carbon emissions.
- We live with the more immediate impacts of the cocktail of pollutants that hang in the air we breathe, with poisoned rivers and ruined land.

Participation

- This venue, this process
- High level timeline dates
- Who is IEP policy planning working group?
- Whose 'expert' judgement?
- DoE should address perception that its primary constituency is MEC

Model broken

- The development model based on growth is failing – if the objective is to address poverty and ‘development challenges’ we had better have another plan.
- MEC is crumbling – cheap & abundant base-load for energy intensive users no longer feasible
- Accumulated environmental impacts from this model are destroying the physical basis for its future

Alternative

If SA wants to

- supply the energy needs of its people,
- respond to unemployment,
- avoid catastrophic climate change,
- clean up air pollution to let people breath,
- conserve water and prevent the further destruction of whole watersheds, and
- avoid bankrupting itself,

it should focus national resources on developing renewables under democratic control while shutting down coal plants.

Presentation and data

- Referencing is thin & uneven.
- Dated data – notably on GHG emissions and costs of renewable energy technologies. Conceals that REIPP new wind is now cheaper than new coal
- Charts are illegible in government printer's version; keys hidden in DoE version (figs.7-1 to 7-4);
- Charts are made to carry key findings but are not easy to read precisely – particularly for stacked curves.
- Accompanying description is thin.
- Numerical values to supplement charts are not given.
- We are not told how model was constructed

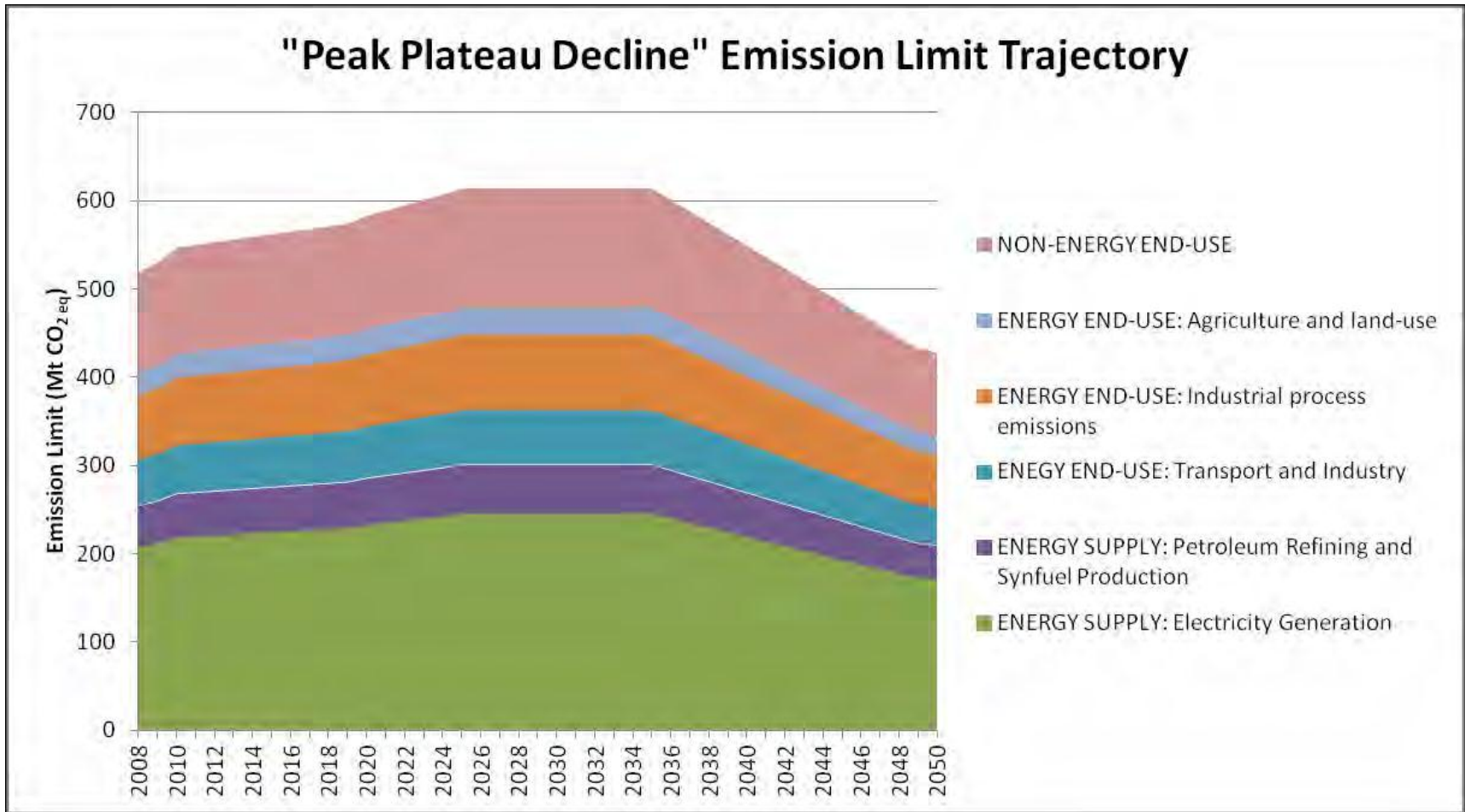
Macro assumptions

- High discount rate creates bias against investing now to avoid future CC costs or to save on future fuel costs – as with RE.
- Externalities are not accounted for in model outputs
- GDP growth: Low growth already optimistic – moderate growth unlikely.
- Volatility smoothed away (fig.4-1).
- High & low oil price modelled but nothing said about coal price trends despite Eskom's concerns

Detachment from reality

- Historical trends taken from boom period that is now over
- Demand projections are improbable
- Demand made impervious to price (unless fuel switching is available)
- Takes no account of climate change and health impacts of air pollution
- Water use modelled but AMD, radiation and water quality ignored

GHGs



GHGs

- NCCRP gives target PPD reductions as a range. IEP takes the top only
- IEP fig 6-1 is not credible: shows power sector emissions rising from 210 MtCO₂e in 2010 to 225 in 2018 (when Kusile is completed).
- Eskom emissions in 2010 were 224 and new build will take it over 300
- Fig 6-1 emission path can only be met if old plant emitting 78 MtCO₂e is closed.

GHGs

- Fig 7-16 shows CO₂ (only) emissions from 5 test cases – 3 cases are identical which is odd.
- 2010 base year is supposed to be ‘based on actuals’. All cases should therefore start from same point but don’t.
- Actual 2010 emissions were 542 MtCO₂e.
- CO₂ emissions are 79% of CO₂e.
- Hence, Fig 7-16 implies 2010 Base Case emissions at 494 MtCO₂e & Emissions Limit Case at 443, respectively 46 and 97 Mt below actual.
- Emissions Limit Case projections for 2020 & 2036 are within NCCRP upper limit – but subsequent decline does not match PPD.

IEP v NCCRP

	2010	2020	2036	2050
Actual	542			
IEP Base Case	494	620	835	873
IEP Emissions Limit Case	443	506	588	519
NCCRP upper limit	-	583	614	428

Thank you

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The logo for GroundWork features the word "ground" in a black, lowercase, serif font, followed by "Work" in a green, uppercase, serif font. A thick, horizontal green brushstroke underline is positioned beneath the "Work" portion of the text.

groundWork