

FEEDBACK FROM PUBLIC CONSULTATION

Keith Gottschalk

kgottschalk @ uwc.ac.za

9 December 2016

1. PROCEDURAL OBJECTION

- All nuclear-related public consultations follow identical pattern – hundreds or thousands of pages of technical documentation released with derisory time to permit after-hours analysis, reflection, & comments
- This indicates planned strategy to thwart meaningful public consultations by providing form but not substance for legal minimum for public consultation – need to be redone from start

2. SUBSTANTIVE OBJECTIONS

- **Objection to the rigging of comparative prices of nuclear power with other options for generating electricity**
- Source Business Day 8 December 2016
- IRP alleges: LATEST cost / kWh:
- WIND 81 cents 62 c / kWh
- SOLAR 86 82
- COAL 93 R1-03

IRP POWER GENERATION, TECHNICAL PLAN Update August 2015

- Uses self-contradicting unit of measurement:
- “**Total** Plant Costs Overnight costs”
- overnight costs exclude compound interest & finance
- Nuclear power stations take twice as long to build as renewable or gas options, so have vastly higher interest charges & total plant costs
- Effect of unit chosen is to conceal cost gap between nuclear and other options

Also note:

- Gauteng power market is shorter distance from average renewable power site than long haul from coastal nuclear plants
- So less renewable power lost in transmission than from nuclear power stations
- This affects relative costs of renewable vs. nuclear power

IEP page 119

- “local energy resources are favoured because imported energy impacts not only on the national balance of trade but also on energy security due to geopolitical risks”
- Negative view of Southern African Power Pool – which Eskom founded!
- Balance of trade 9:1 in South Africa’s favour, so some room for energy imports
- Diversified sources of electricity, imported from diversified transmission routes, enhance security
- Boosts SA relations with SADC

IEP 2016 SECTION 3 KEY ASSUMPTIONS

TABLE 0-1 GDP GROWTH PROJECTIONS

- GDP growth stats for 2016
- low: 2.3 – 2.9%
- moderate: 3.2% - 3.5%
- high: 3.7% - 4%
- Reality check – actually 0.8%
- Consequence – lower future electricity demand - no need for nuclear options

The Lowest Cost scenario is ignored in favour of an artificial constraints scenario

- There is no Nuclear-Free scenario. This needs to be provided.

The DoE Website proudly provides a section on a 5 000 MW Solar Park at Upington

- 6 yrs later IEP page 53 barely mentions Govt “is considering” it
- Overdue for Govt to implement own policy
- Pp.54-55 barely mentions 1300 MW imported from Cahora Bassa; Inga 2 200 MW not mentioned

Inga 3 barely mentioned 2 500 MW by 2035

- Treaty on the Grand Inga Project signed in Kinshasa 29 October 2013
- Article 9(4) South Africa commits to purchase a minimum of between 20%-30% of all further developments, ie Inga 4-8 which is at least 10 000 MW
- Why is this omitted from IEP & IRP?
- Why no mention of Mphanda Nkuwa and other imported hydro projects?

RECOMMENDATIONS

- DoE IEP 232 November 2016 slide 16 mentions that two or three oil refineries will close in future
- Priority should be closing Cape Town & Durban refineries because adjacent suburbs have SA's highest rates of respiratory sicknesses

IEP section 8.3.5

- “Solar should play a much more significant role”
- page 165 “Large-scale CSP projects should be incentivised”
- But Eskom Executives refuse to sign contract with biggest CSP project

Incentivizing CSP projects

- It is responsibility of relevant minister to declare that such refusals constitute an irretrievable breakdown in the employment relationship, dismiss the executive, and appoint a new executive who will sign contracts with new CSP projects

IEP section 8.2

- “New electrical generation should be brought on line through a competitive bidding process” ... “Low cost is a key criterion”
- support a level playing field between gas, renewable, and nuclear generation options: only buy power for a contractually enforceable price. All cost overruns are for vendor to pay.

IEP section 8.2

- oppose the clause in the MOU with Rosatom which states that Rosatom will only sell its nuclear reactors *voetstoots* – repairing any cracks & other crises will be paid for by the purchaser

Eskom should study how the German and other grids are able to manage high proportions of renewable electricity

- priority to give our national grid significant augmentation and deepening
- priority to give the Southern African Power Pool backbone significant augmentation and deepening
- “Western power corridor” should be constructed to enhance energy security from both Inga 2 & 3