

Preliminary comments on the Draft IEP / IRP Updates 2016 Free State Consultation Workshop

Martin Kingston (Chair: BUSA Energy Sub-Committee)

3 February 2017

Bon Hotel, Bloemfontein

Overarching business view



- Although long overdue, release of the IEP and of base case and assumptions on IRP welcomed
- Finalisation of the IRP and IEP critical government documents for 2017
- BUSA committed to meaningful and constructive engagement with Government and other stakeholders
- Essential planning documents to ensure certainty on the long term sustainability of the energy sector

IRP and IEP: BUSA expectations



- Planning tools that enable decision makers in the private and public sectors to make energy related decisions positioning the energy sector to play its central role in ensuring that viable and sustainable inclusive growth, that everyone agrees is essential to South Africa's future success is achieved
- This requires the inclusion of details as to how the plan will be funded
- Understanding of the impact of a particular scenario on the future affordability of energy is critical

IRP and IEP: BUSA expectations (2)

- Long term price path, particularly for electricity
- Provision of sufficient information to undertake meaningful engagements and to assess the impact on
 - viability of companies
 - competitiveness of SA economy
 - structure of the energy sector
 - prospective investment in the sector
- Final IRP should be based on policy adjusted least cost case

Key information essential for analysis

- BUSA has begun a detailed analysis of the documentation and notes that the information provided is inadequate to undertake a meaningful analysis
- Key information that has not been made available has been identified and a formal request has been submitted to DOE
- The REIPP initiative has been used as a measure of the attractiveness of SA as a investment destination. However, public contradictions relating to national policy has raised concerns amongst prospective investors in general and particularly in the renewable energy sector

Key information essential for analysis (2)

- It is essential that the basis of procurement of the energy sources contemplated in the IRP and IEP is clearly articulated in the plan
- Explicit articulation of strategy and implementation is necessary to buttress Government's stated intention to encourage investment
- Relevant information must be included in the version of the plan on which comment is requested

Key concerns

- Lack of consistency between IEP and IRP
- Transmission and distribution is not covered in IRP despite recommendations in IEP
- Reports on costs not available for five of the nine technologies listed
- Complete explanation of all material assumptions for base case not provided
- Impact of ministerial determinations must be understood for licensing purposes. This is not clearly explained

Key concerns(2)

- Terms “base case” and “least cost case” appear to be used interchangeably
- Carbon constraint assumptions are clearly different from updated base case but not clearly articulated. It is therefore impossible to analyse and assess
- There is a risk to other emitting sectors if too much carbon space is allocated to electricity
- Assumption on penetration rate of embedded generation and policy assumptions need to be provided

Key concerns(3)

- Details not provided on most of the proposed scenarios - Therefore impossible to analyse and assess
- Constraint on renewable energy in updated base case needs to be motivated. The original motivation has now been superseded by experience
- All technologies should be treated equally in terms of grid access. There is no reason to discriminate against renewables

Conclusion

- In terms of the National Energy Act IEP must deal with all issues relating to energy supply which provides a guide to energy infrastructure investments and appropriate technology to meet energy demand. The current version does not fulfil this requirement
- IRP is a critical planning document for the economy as a whole, not only for the electricity sector
- Proper public consultation processes require that participants in the process have access to all relevant information to allow meaningful analysis and input/engagement
- This is not the case with the IRP documentation currently provided
- Confirmation required from DOE that the updated IRP report (November 2016) is the one on which comments are sought
- BUSA on behalf of business fully committed to comprehensive participation/engagement in consultation process to ensure viable, sustainable energy sector underpinning inclusive growth

Thank You

Supplementary slides

- Comments on the IRP are based on a preliminary review of the November 2016 document downloaded from the DoE website
- Our preliminary review reveals several areas where the information provided is insufficient to make an informed comment. We have requested additional information and documentation from DoE for a more comprehensive submission to be made. This is yet to be provided

2. Planning Assumptions and Input Parameters

- Provision of meaningful comment dependent on transparency on data used by DoE. However, transparent costs for base case only provided for some technologies
- In addition, some technologies have not been included in the base case, which were included in the MTRP published with the IRP 2010. Cogeneration is an example of this (ERA electricity generation regulations make specific provision for cogeneration)

Planning Assumptions and Input Parameters (2)

Technology	Source of Cost	Availability of report
PV	REIPP bid window 4	Not available
Wind	REIPP bid window 4	Not available
Landfill gas	Source not clear	
DR	EPRI	Available
Nuclear	DoE report based on Asian costs which are generally less than Western costs	Not available
OCGT	EPRI	Available
CCGT	EPRI	Available
Coal PF FGD	EPRI	Available
Inga	Source not clear	Report not provided

2.2. Economic Parameters

- Discount rate of 8.2% different to 8.4% referred to in IEP. **Clarification required for inconsistency**
- Reference to NERSA report detailing base year for unserved energy. **Report not available**
- For cost of nuclear, EPRI report referenced. However, Sections 2.1. and 3 refer to DoE report on nuclear costs. **Clarity needed on which report is to be used and access to DoE report needed**

2.5. Non-Eskom Plant

- It is not clear how the stated capacities in table 4 were used in the base case, as it is understood that not all of the installed capacity is available to the grid. In addition, the list does not appear to be exhaustive
- **Clarification on the actual assumptions and the limitations of the list are required**

2.6. Ministerial Determinations

- Reference to the ministerial determinations in section 5 only includes the pace and scale, implying that all such determinations will be incorporated into the planning. This section states that only projects for which there is a determination that are committed will be included
- **Clarification on the intention is required**

2.8. Eskom Plant Life and Air Quality

Retrofit

- Section refers to application by Eskom for postponement of air emission compliance deadline. **However, no reference to status of the application or the approval of the air quality retrofits reflected in table 6**
- Also concerning that, in some cases, the significant expenditure required to fund retrofits are being contemplated for execution either simultaneously or within a year of the intended decommissioning. Not a rational approach and a scenario should be included which demonstrates the financial impact of such an approach

5. Results and Observations from the IRPA

Update Base Case

- Text relating to table 12 conflates the base case and least cost case as same scenario. This is not correct
- **Clarification required:** Results in table 12 are for updated base case using IRP 2010 as starting point. Do not reflect least cost case stated on page 26
- **Confirmation needed** that final IRP will be based on a policy adjusted case built on least cost case

6. IRP Update Scenarios

- **Clarification required** on whether policy adjustment will be based on least cost case or base case (terms incorrectly used interchangeably in document)
- **Assumptions need to be made public**

6. IRP Update Scenarios (2): Carbon

Budget

- Gazetted IRP update applies moderate decline annual constraints as an instrument to reduce GHG emissions. However, application of a carbon budget at sectoral level have not been part of discussions with DEA on the matter
- **Required:** Updated national emissions trajectory (to serve as benchmark) & Amount of carbon budget allocated to electricity sector
- **A risk exists** that if too much carbon space is allocated to electricity sector, growth of other sectors may be constrained

6. IRP Update Scenarios (3)

- Primary fuel price tipping point: Coal, gas and nuclear.
Details to be provided
- Low demand trajectory. **Confirmation required that low demand trajectory is as reflected in Section 2**
- Embedded generation (rooftop PV). **Assumption on extent of embedded generation and policy assumptions to be provided**

6. IRP Update Scenarios (4)

- Enhanced energy efficiency. Comment on sustainability of 11.8 TWF DSM programmes **requires more information**
- Low Eskom Plant Performance: We assume moderate plant performance was used in the base case scenario. **Confirmation required**
- Regional options (Hydro, Gas). **Details to be provided**

6. IRP Update Scenarios (5)

- Indigenous gas. **Details Required**
- New technology (storage). **Details of assumptions required**
- Electricity Network Implications. **Details of assumptions to be provided**
- Additional Sensitivity Analysis. **Details to be provided**

6. IRP Update Scenarios (6): Unconstrained Renewable Energy

- Base case includes the constraint on RE that was included in IRP 2010. At the time, constraint was included due to uncertainty on accessibility to grid of successful bidders
- Concerns about recent engagements between Eskom and successful bidders. **Status of Eskom as sole buyer of electricity responsible for constraints**
- Policy assumptions determine the outcome of the modelling. **IRP is a planning document and must treat all technologies equally in terms of grid access.** Assumed policy constraints should be well understood before constraints on certain technologies are created