

# **IPR feedback presentation**

3Energy Renewables (Pty) Ltd  
Florian Kroeber

09 December 2016

3Energy is a renewable energy asset manager for wind, PV and hydro power plants with over 400MW under management in South Africa.

- Energy Forecast:  
The high (less energy intense) forecast of 2.17% pa growth seems over cautious
- Advanced Emission decline should be preferred, since we start from a high base per capita already
- Using the Moderate Plant Performance option for the Eskom Fleet Plant Performance is optimistic, considering the fleet consists of either all new and all old power plants.  
A poor assessment of this aspect has failed twice before.
- Eskom Plant Life: reasonable assumptions
- Committed Build Dates for Eskom units (Medupi, Kusile and Ingula): We recommend a more cautious approach on the timelines considering past delays

# Feedback on the IRP Assumptions and Base Case

- Demand side management: reasonable assumption
- The LCOE calculations are using historic prices rather than current prices.  
This makes coal and nuclear appear cheaper and renewables appear more expensive.  
PV and wind is 40% cheaper than coal at the moment.  
Historic tariffs are a poor indicator for future tariffs on a fast changing environment like energy generation.
- Technology Learning Rate:
  - A competitive IPP process will see tariffs decline (inflation adjusted) for all technologies.
  - Decentralized technologies with a lower 'per project' investment are more useful for job creation and good governance

- Base Case results:
  - Build constrains for PV and wind are not helping LCOE and economic development
  - CSP dismissal is premature
  - Gap in wind installations before 2023 is dismissing the efforts to localize component manufacturing
  - Cogeneration must have an allocation, especially to give the KZN wood and sugar industry a space. Those projects have the highest potential for job creation.
  - Nuclear capacity can be replaced by PV, wind, storage and gas

- The 'Energy Contribution Mix' can be shifted towards cheaper and cleaner renewables without build restrictions in place.  
This will reduce the LCOE and create more local jobs
- Eskom to be split into generation and distribution units in order to allow for fair market access, job creation and reduced LCOE