

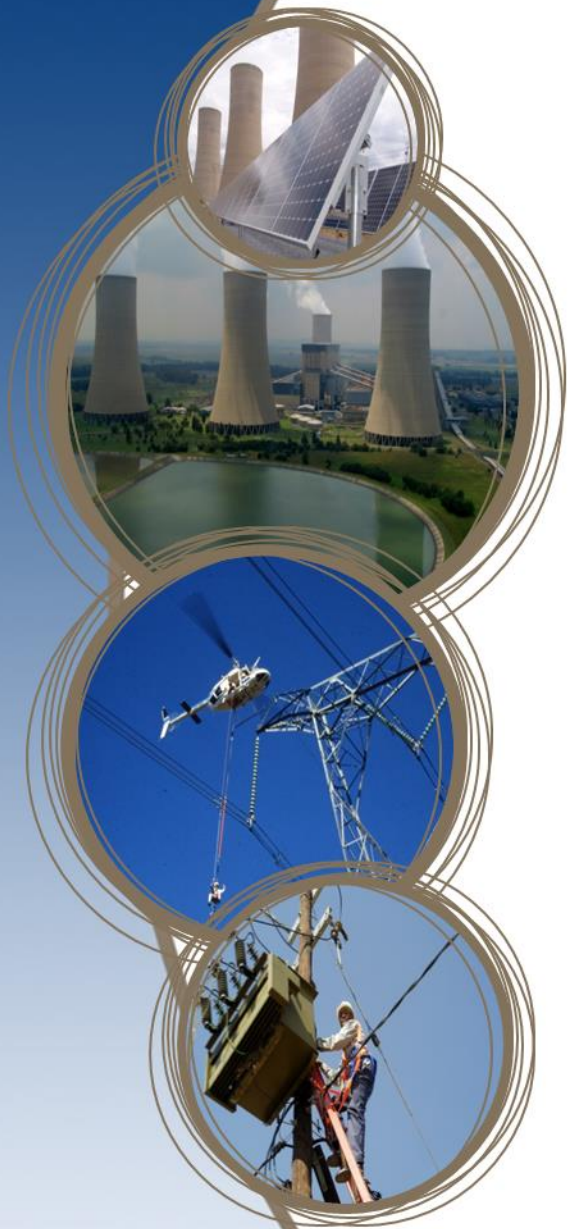
## NERSA Public Consultation

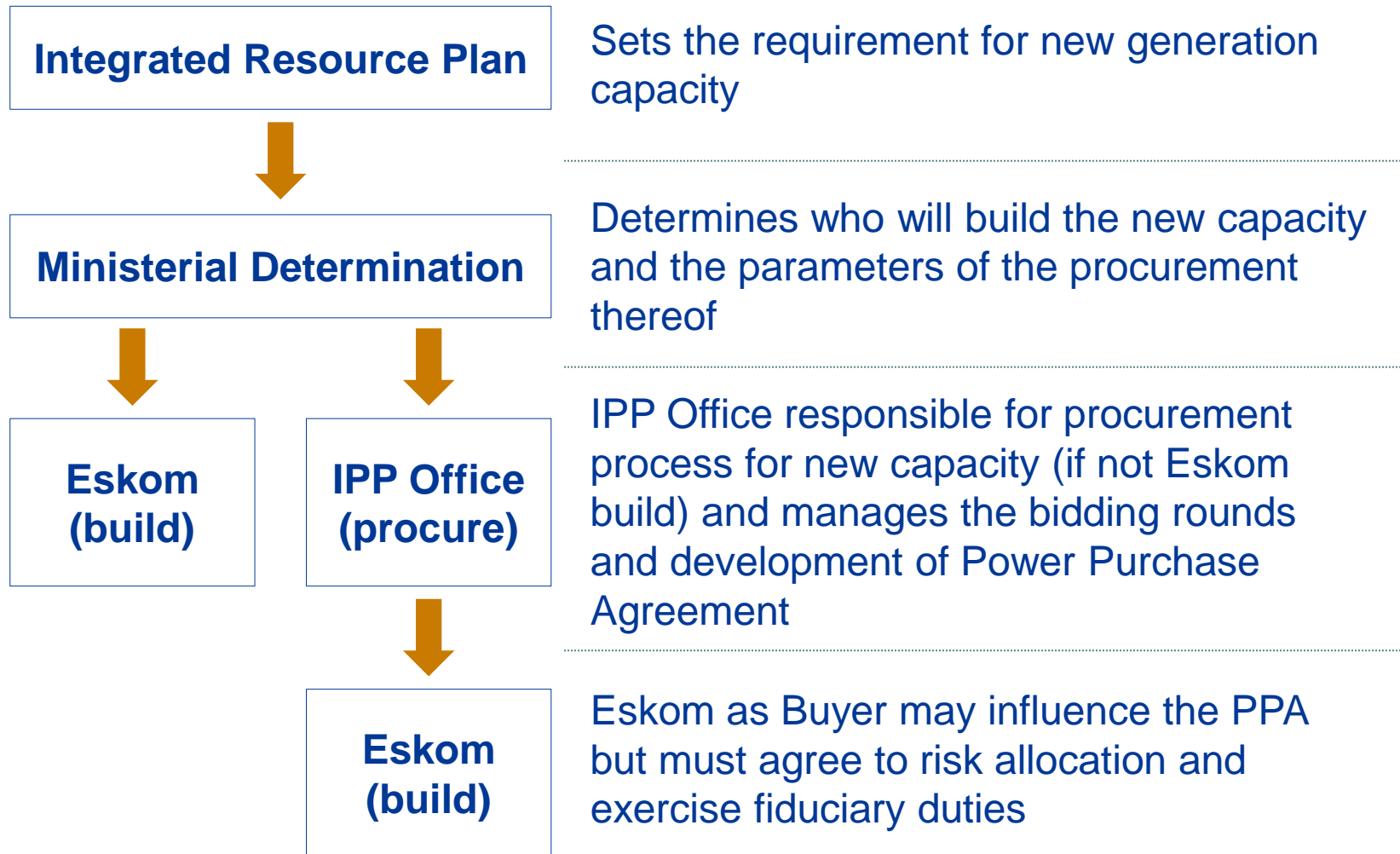
Licensing applications from coal IPPs

27 March 2018

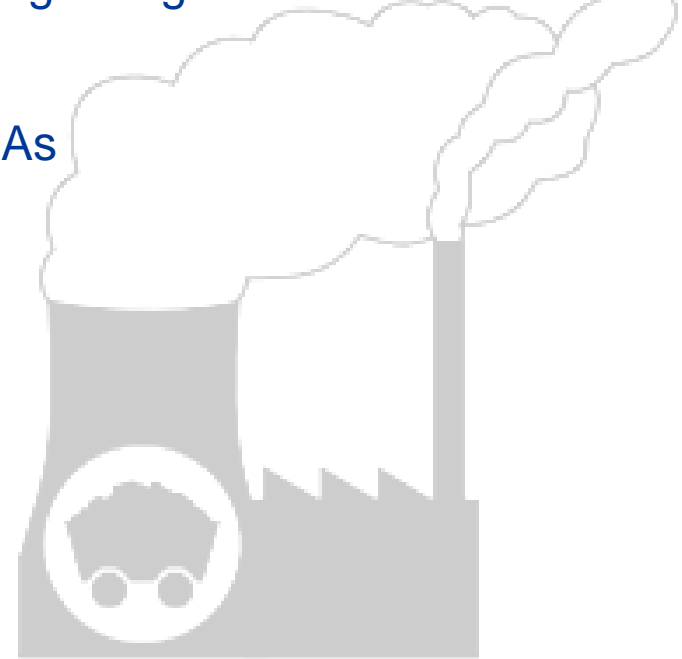
1. Power Purchase Agreement Issues
2. Climate Change Considerations
3. Environmental Licenses & Permits

## Power Purchase Agreement Issues





- Concerns with risk allocation on the coal programme raised in 2014
  - Eskom engagement with IPP Office raised issues at the time of development of PPAs and RFP documents
  - Eskom Board raised specific concerns regarding the risk allocation and the obligations imposed by the PPA
  - Eskom Board did not agree to these PPAs





- Minimum utilisation (85% of available capacity)
  - The PPA requires that the System Operator / Buyer must dispatch the generator in order to meet a minimum 85% of the available capacity over a rolling 12 month period. Assuming an availability of 90% this would be an effective load factor of 77%.
  - This is not dissimilar to the expected production of Medupi power station.



- Intra-hour dispatch (no intra-hour dispatch allowed)
  - Unless the generator is providing ancillary services the SO may not change the dispatch instruction for the generator within the hour.
  - All existing Eskom generators are able to respond to dispatch instructions within the hour, and these instructions are given on a regular basis (outside the Automated Generator Control system). The grid (with its dependence on large-scale coal-fired generation) could not sustain the load variability without a relatively high degree of flexibility.



- Maximum utilisation of Regulation and Instantaneous Reserve capability (3723 hours each)
  - The SO will not be able to utilise these ancillary services from the generator outside these hours. This will require that there is sufficient “cycling” of generators offering Regulation and Instantaneous Reserve capability in order to respond to events on the grid.
  - With increased flexibility requirement and the decommissioning of existing Eskom generators the total capacity required by the SO in these reserve categories is likely to rise so the limitation is a concern.



- Allowed Transmission Grid Unavailability Period (17.52 hours) and Distribution Grid Unavailability Period (43.8 hours)
  - There is little logic in applying these limitations in the coal PPA as the generator receives availability payments regardless of the state of the network. If the generator is available they receive the payment independent on whether the grid can evacuate the power.

- Setting precedent
  - In a potential future of restructured Eskom generation the Eskom coal-fired generators would need PPAs and these under discussion today would set the precedent
- Need for flexibility
  - Assuming continued increase in renewable energy penetration – the system will require more flexibility not less



## Environmental licenses, permits and regulations

- The coal IPP will be required to comply with all relevant legislation and obtain relevant licenses timeously

## Carbon taxes

- The long term impact of procuring additional coal-based electricity is that the proposed carbon tax on electricity tariffs will be negative. The tax will escalate (initially at CPI+2% and at CPI thereafter).
- It has been further proposed to phase out the tax-free thresholds completely - the current draft commits to undertaking a review of the impact of the tax before making changes.

## Carbon budgets

- Furthermore, government is still considering options to align the carbon budget and carbon tax – given the minimum utilisation levels in the PPA, we require clarity on whether this will oblige government to award the coal IPP with a carbon budget to cover all its contractual obligations and whether this will be applied equally to existing Eskom coal-fired generation

