



# *Independent System and Market Operator Bill*

*Comments to Parliamentary Committee on Energy  
15 May 2012*

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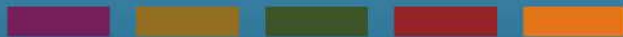
*Management Program in Infrastructure Reform and Regulation  
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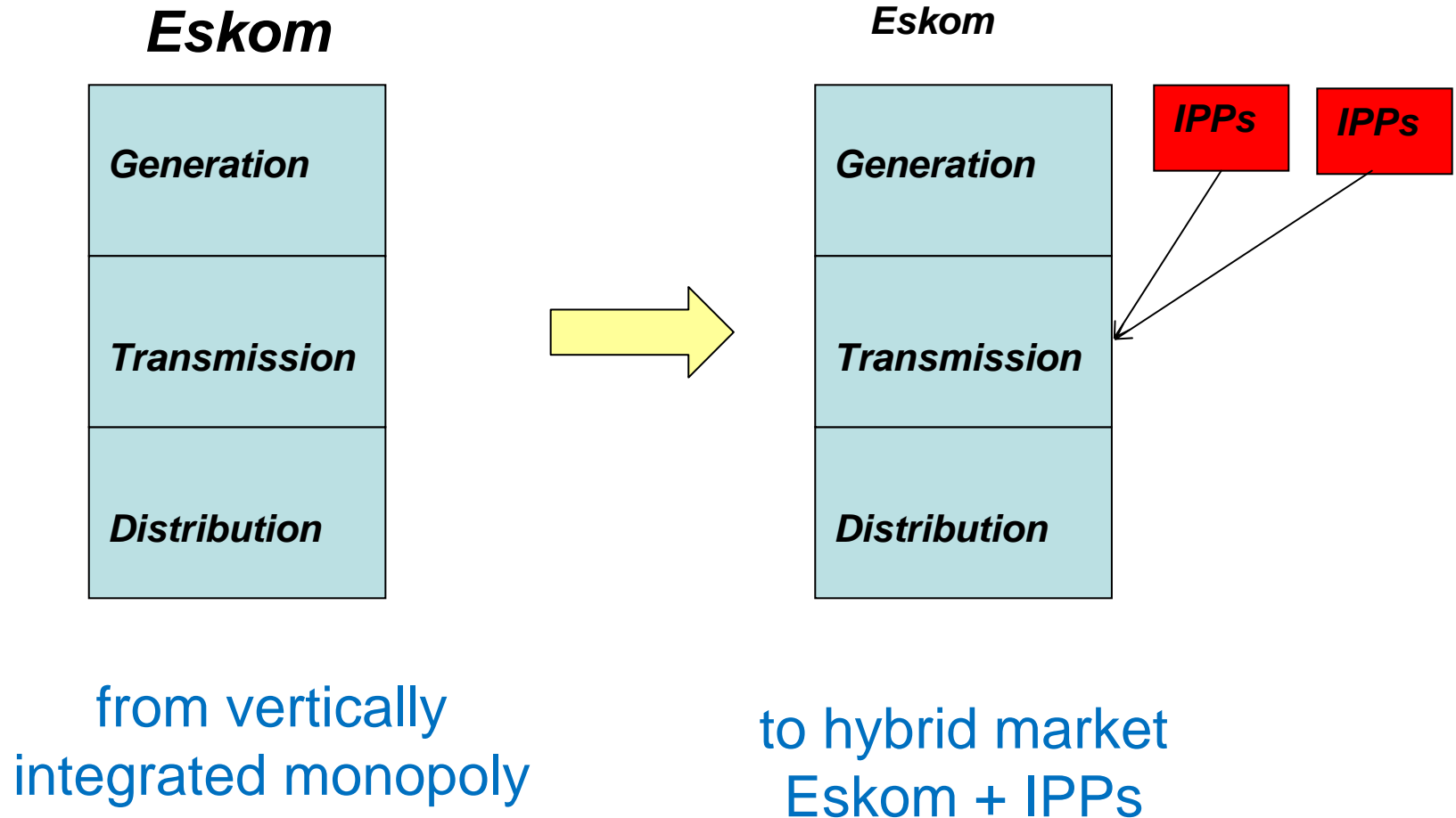
# Overall comments

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- This Bill is most welcome. It should be enacted as soon as possible and ISMO should be established forthwith
- However, there are **two** fundamental areas where the Bill should be strengthened.
  1. ISMO should be given full responsibility for Integrated Resource Planning (IRP)
  2. ISMO should be responsible for procurement (as well as buying) of new power generation capacity



# Background context



Electricity industry market structure has changed

# South Africa's hybrid power market

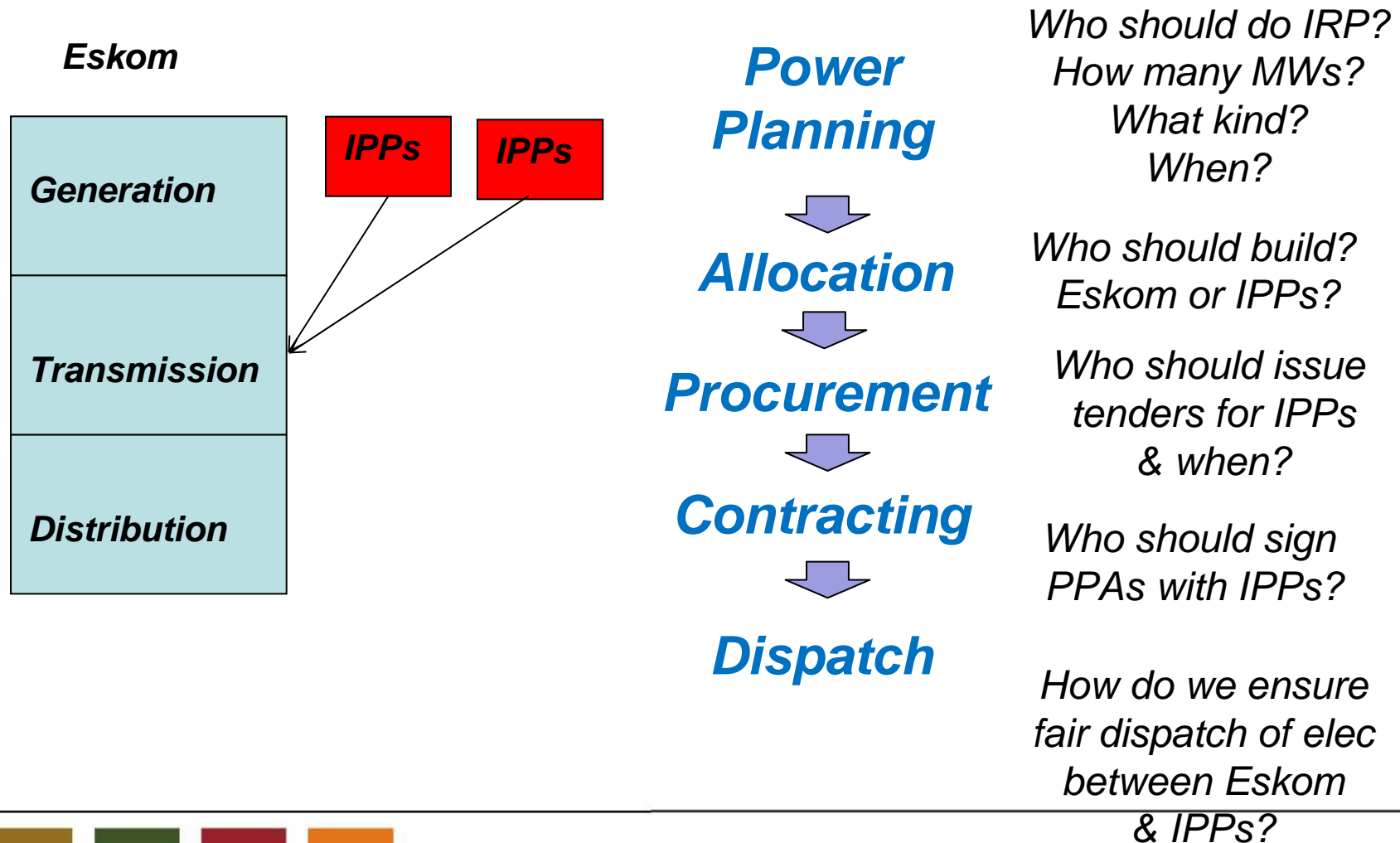
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- Eskom is unable to undertake all required investments for new power generation: also need IPPs
- But Eskom is in dominant position
  - Owns 96% of power generation capacity
- IPPs mostly have to sell to Eskom
  - Eskom supplies all municipalities and its own customers
  - Eskom power prices can be lower because it can blend in the lower costs of old power stations (that have already been paid for) with the higher costs of new power

Hybrid power markets (Eskom + IPPs) create special challenges  
Have to level the playing field between Eskom and IPPs

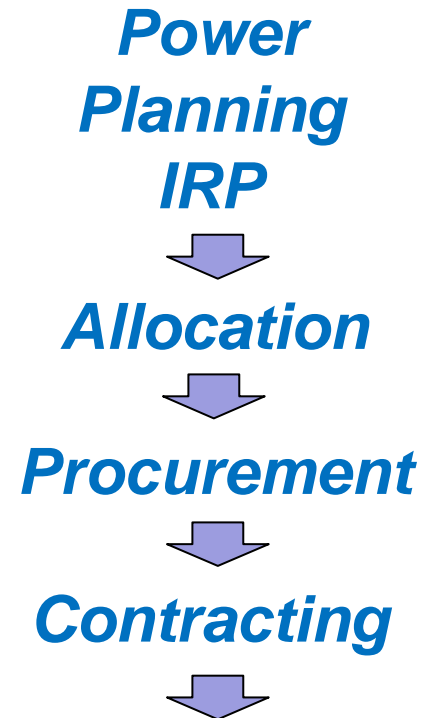


# Challenges with new hybrid power market



# Challenges with new hybrid power market

- In the past Eskom used to do all of this:  
(planning /procurement / contracting)
- When hybrid market started (after 1998 White Paper) there was confusion as to who had responsibility for planning, procurement of IPPs and contracting
- At one stage there were 3 plans!  
(Eskom, NERSA and DME)
- **Result was power failure!**
  - Plans were not up-to-date
  - New power generation was not ordered in time
  - No contracting system for IPPs



To avoid failures, responsibilities for planning, procurement and contracting should be clearly allocated

# Generation expansion planning

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- Electricity Regulation Act currently assigns responsibility for IRP to Energy Minister
- ISMO Bill says ISMO merely provides inputs for IRP
- But Energy Ministries seldom have sufficient capacity to undertake detailed generation expansion planning and “Master Plans” are either too general or soon become out of date
- IRP is expensive: sophisticated models and experienced modelers needed!
- In past, this task has been delegated to Eskom
- Plans should be updated frequently

***Best to allocate this task to ISMO  
which has excellent models and experienced staff  
Can then also link planning to procurement of new Gx***

# Allocation of new build opportunities

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- National utilities often continue to frustrate the entry of IPPs, arguing that they can do the job more cheaply
- However, Eskom not able to undertake ALL investment for required new generation capacity
- Also not inevitable that they can necessarily deliver more cheaply (cf. Medupi and Kusile)
- And track record speaks for itself: sufficient new capacity has not been added to adequately meet new demand

ISMO, under guidance of Energy Minister, should develop transparent and clear criteria whereby new build opportunities are allocated to either Eskom or IPPs



# Procurement of new power

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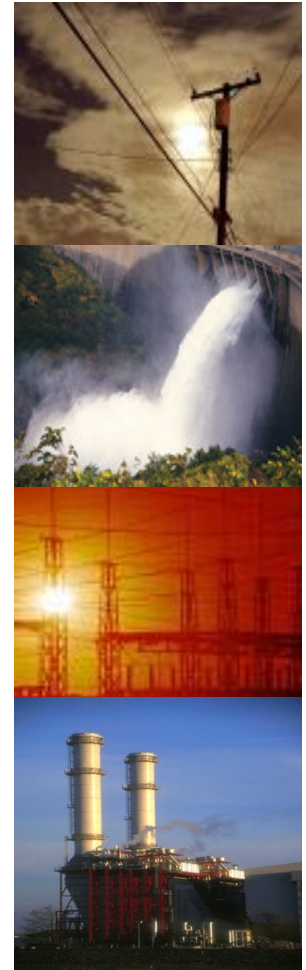
- **Planning** needs to be linked to **timely** initiation of **international competitive bidding (ICB)** processes
  - ICBs offer more transparency & competition & lower prices
  - Bid process, financial closure, construction & commissioning take time – need to start years ahead
  - ICBs require experienced transaction advisors
- Electricity Regulation Act currently gives responsibility for procurement of new generation capacity to Ministry BUT
  - Ministry does not have sufficient experienced transaction advisors
  - Ministry hires new transaction advisors each time – no continuity and no local capacity is built
- ISMO Bill mentions procurement – but this seems to refer to buying of power rather than issuing tenders for new power

Best to allocate procurement / tendering task to ISMO  
so that long term capacity can be built  
to manage international competitive tenders  
Can more easily be linked to planning (also in ISMO)

# Contracting (buying) of new power

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- ISMO rightly allocated this task and will sign long-term power purchase agreements (PPAs) with IPPs
- But should **not be exclusive single-buyer** function
- IPPs should also be able to contract directly with eligible customers such as large municipalities and mines / industries
- Non-exclusive cross-border trading should also be allowed
- If the ISMO is a **non-exclusive** central purchaser then some competition in generation is possible with the possibility of lower prices



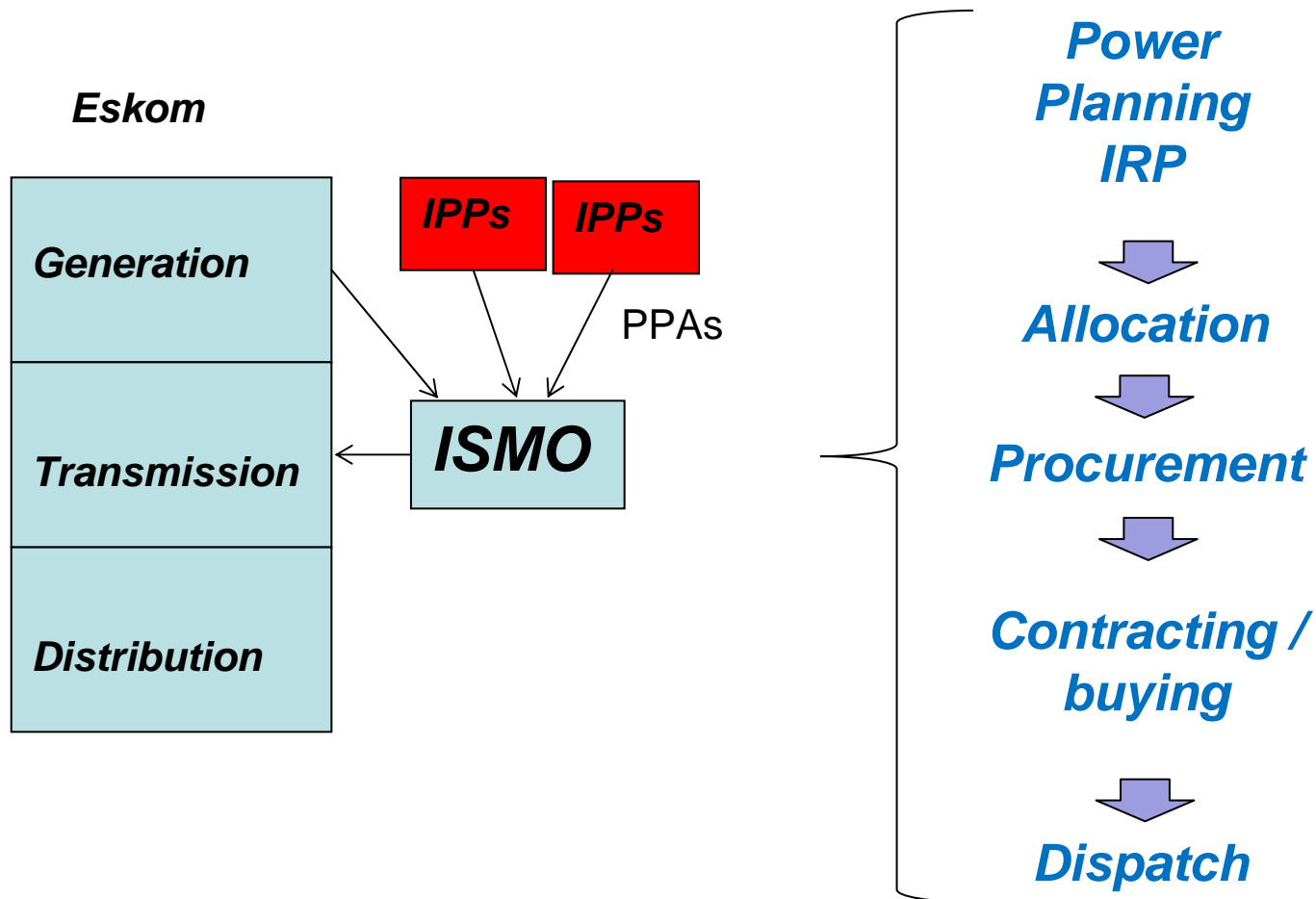
## ***Proposed amendments are modest but essential***

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- Planning / procurement / contracting / system operation need to be integrated in one institution
- ISMO bill currently says ISMO will **help** with planning, and will be responsible mainly for contracting (buying) and system operation: not good enough, should have **full** responsibility
- Energy Ministry should not have **operational** responsibility for planning and procurement, rather they should have overall **policy** responsibility (e.g. on energy mix) as well as the right to intervene if things go wrong
- Need to amend Electricity Regulation Act and ISMO Bill to clearly allocate these responsibilities to ISMO

**Failure** to integrate and allocate full responsibility for planning / procurement / contracting / buying / system operation all in ISMO will be suboptimal and **could lead to power failures!**

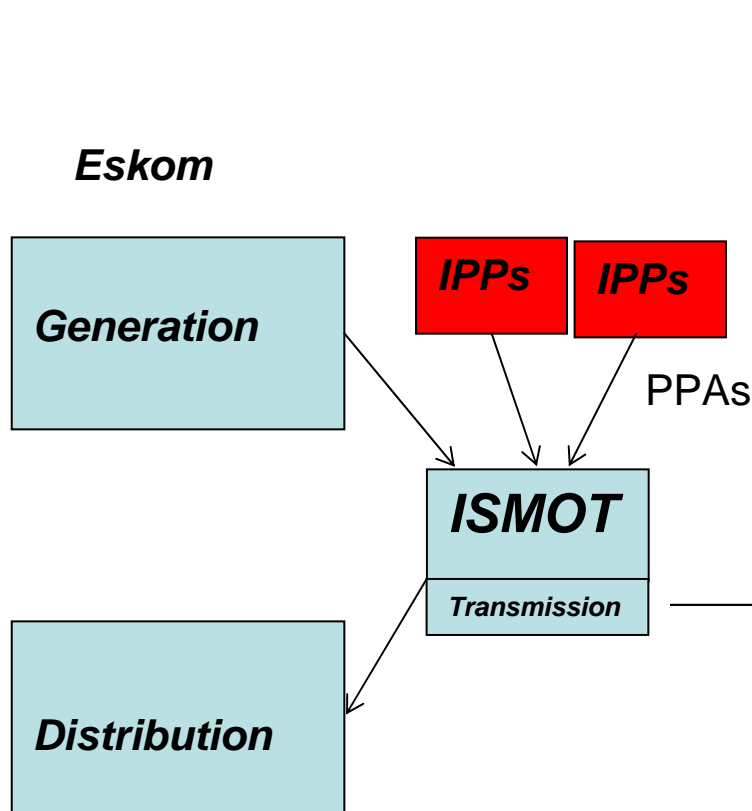
# Integrate planning / procurement / contracting in ISMO



**Operational functions in ISMO**

**Policy / oversight / emergency intervention functions in Ministry**

# Final thoughts



- Biggest constraint currently faced by IPPs is transmission access
- Transferring transmission assets to ISMO would create level playing field between Eskom & IPPs
- Argument that this will ruin Eskom's credit rating is fallacious: value of Eskom transmission assets is tiny compared to rest
- Generation planning can be linked to transmission planning

Transmission should also be transferred to ISMO



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## **Prof Anton Eberhard**

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