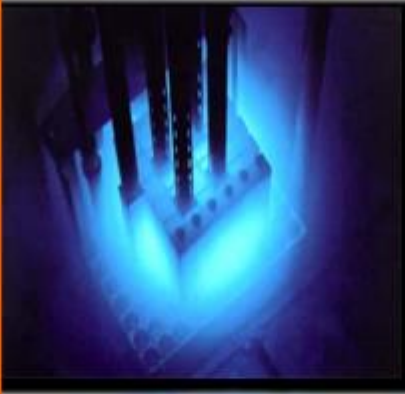


# DEPARTMENT OF ENERGY



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Establishing the  
Independent System & Market Operator  
(ISMO)  
1

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# Introduction

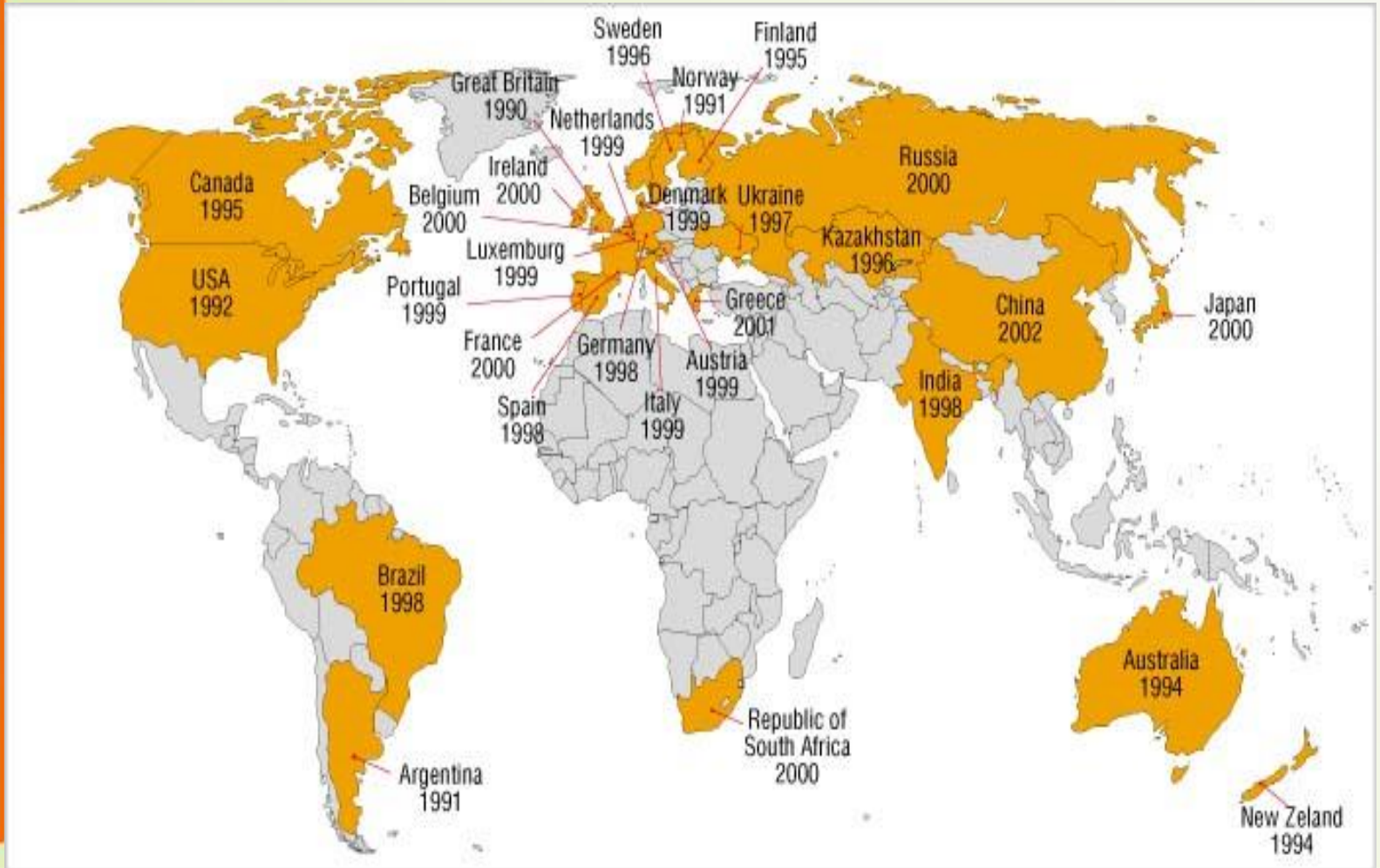
- Inputs received were very useful and will improve the quality of the Bill
- The presentation will focus on key issues whilst legal team will analyse the drafting proposal and incorporate it accordingly
- Submission were not advocating for the same position hence it is necessary to balance the conflicting interests
- Whilst incorporating the inputs, the interests of the ordinary South African need to be taken into account
- Majority of the submissions were concerned about the end-state which is not clearly defined in the Bill
- The presentation will give an overview of different models around the world which were the basis for the ISMO



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# Liberalization, a World Trend which started in 1990



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# Different countries reviewed

- Countries considered

- Developed countries include – USA, Norway and UK
- Developing countries included- China, Turkey, Thailand and Brazil
- Note in relation to developed countries: Norway is regarded as having the best electricity market model

- Study tours conducted

- The Department visited Norway and the UK to study their electricity models
- Among developing countries the department visited Turkey, China and Thailand
- During the visits the Department met with government departments, regulators, universities, IPPs, system operator and the market operator



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# Electricity Market Models



TSMO

- Colombia
- NGC

TSO  
MO

- Netherland –Tennet, APX
- UK - NETA
- Norway – Stattnet, Nordpool

TO  
SMO

- Australia – NENMCO
- Argentina – CAMMESA
- USA – PJM

TO  
SO  
MO

California – TO, CAISO, PX  
Brazil – ONS-MAE



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# Overview of the Norwegian model

- Generation
  - There is competition among the different generators
  - Bilateral agreements are permitted
  - Generators do not own the grid
- Transmission and System Operation
  - The transmission is independent from generation and distribution
  - There is open access to the transmission lines
  - There is separation between the network cost and the energy cost
  - There is only one owner of the transmission line
- Distribution
  - Distribution network is privately owned
  - Distributors are not allowed to sell electricity
  - There are retailers purchasing electricity from the market and selling it to end users but they do not own the distribution network



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# Overview of the Norwegian model

- Electricity Market Operator
  - Generators may sell electricity to the market
  - Retailer purchase selectricity from the market at spot price and sells to the end users
  - End user may sign a contract with any retailer and change such contract from time to time
  - The market determines the prices not the regulator and the market prices are the basis for new investment
- The regulator
  - Regulates distribution and transmission wheeling tariffs
  - Distribution and transmission must apply for increases
- Unregulated part of the sector
  - Retailers are not regulated but compete among each other
  - Energy tariffs are driven by the electricity demand
  - Normally, tariffs are high in winter due to the demand



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# Issues about competitive markets

- Avoidance of Market Dominance
  - There must be sufficient reserve margin to avoid price setting by certain generators
  - Need a diverse portfolio of generation technologies (baseload, load following, peaking)
- Interconnection
  - A well developed inter-connection infrastructure improves security of supply and trading
- Investment
  - It is difficult to attract and introduce new long term investment (except for gas) into electricity generation
  - Some countries are already reconsidering their models e.g. No fresh baseload investment into the UK, Norway markets
  - Market has not been facilitative for RE investment and instruments like FIT (subsidies) have had to be introduced



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## Issues about competitive market... continued

- Cross subsidies
  - There are limited cross subsidies
  - REFIT in certain countries is a form of subsidising RE because it cannot compete in the electricity market
- Carbon emissions
  - Most of the countries have sufficient hydro power potential (and other clean primary sources) to generate electricity – thus allowing the wheeling and trading of power without high GHG emissions



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# Background information on the ISMO Bill



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# Where did we start?

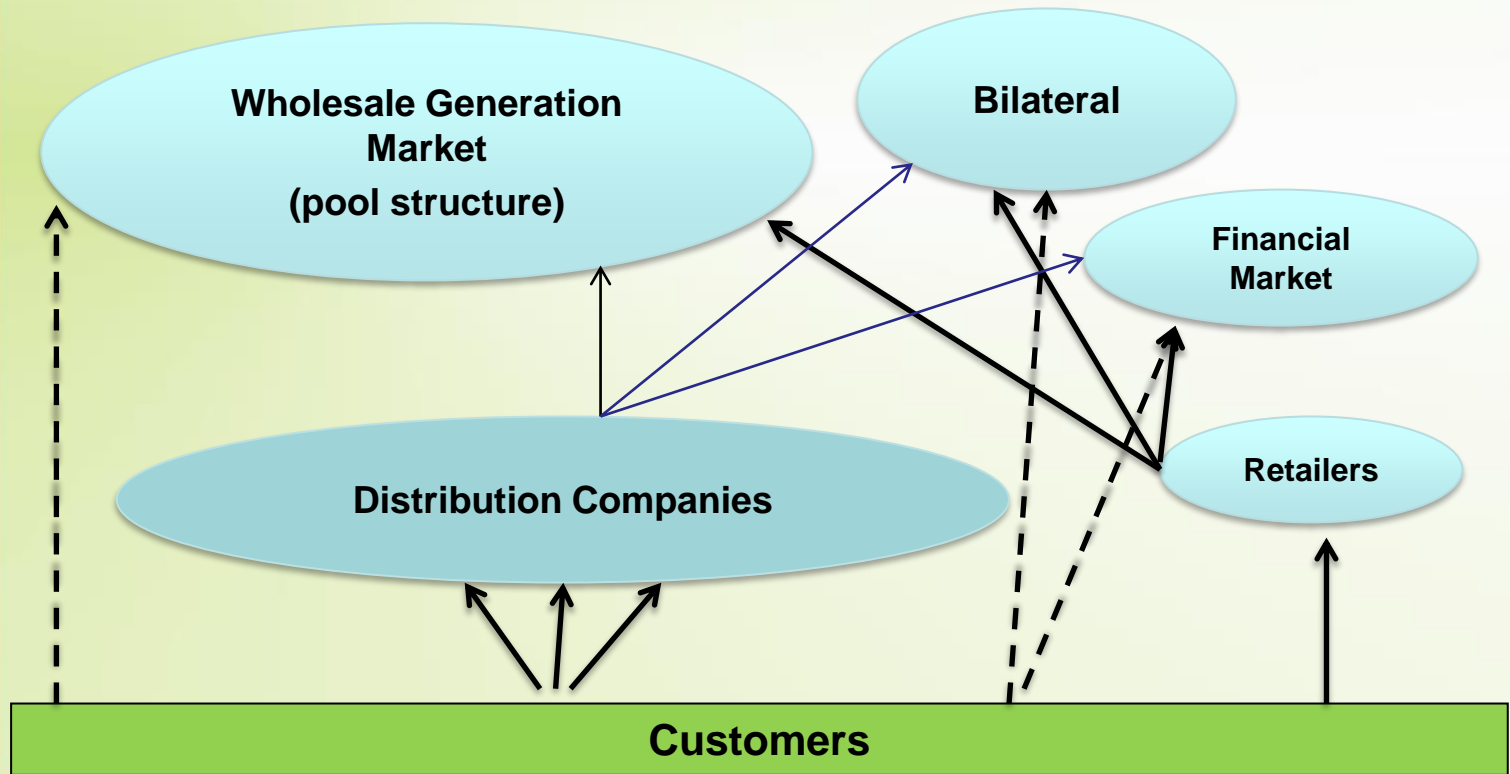
- Publication of the 1998 Energy White Paper
  - Outlining the restructuring framework of the Energy Sector
  - Need for competition in the electricity sector
- Approval of the Blueprint Report by Cabinet
  - Restructuring of the electricity distribution
  - Establishment of RED 1
- Repeal of the Electricity Act
  - In 2003, Multi-market model was proposed to allow for competition in electricity generation
  - Need for alignment of the the Act with the Energy White Paper
  - Restructuring of Eskom generation to allow for competition in electricity generation
  - There was resistance for such proposal
  - The Multi market model was removed from the Bill because it was dependent on the restructuring of Eskom generation



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# Multi Market Model Proposed for SA 2003



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# Background on ISMO Bill - IMC approval

- Prior to the IMC
  - The Department conducted detailed investigation on different models for the electricity sector
  - The models considered included developing and developed countries with advanced models
- In 2010, an IMC was established to consider:
  - the impact of the increasing electricity tariffs
  - different funding models for funding the required new generation capacity
  - Energy efficiency mechanisms to minimise the electricity demand
- The IMC approved the following
  - A concept paper on the establishment of ISMO
  - Submission to Cabinet of a draft Bill on ISMO without the transmission assets



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# Consultation on ISMO

- **Intergovernmental consultation**
  - Working group was established comprised of NT, DPE, DEA, DTI, EDD and the Presidency
  - The working group obtained external legal advice on the drafting of the Bill
- **Public consultation**
  - The Bill was published for public comments in the government gazette in May 2011
  - All comments received were considered and incorporated into the Bill
- **NEDLAC consultation**
  - The Bill was presented to NEDLAC in August 2011
  - NEDLAC report was presented to government in January 2012
  - The report was incorporated into the Bill in consultation with the State Law Advisers and the Bill was redrafted accordingly
  - After the publication of the final draft by Parliament, the department met with NEDLAC to discuss areas that were not incorporated and a supplementary report was produced



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# Analysis of comments received from the public

- Comments received during the public consultation process included:
  - The need for **independent transmission lines** to minimise connection risks. This matter was debated at intergovernmental level and it was agreed that more work needs to be done before taking a decision
  - The concept of **willing buyer-willing seller** which we believe needs to be addressed
  - The need for a **stakeholders' representative on the ISMO board**, of which we believe government should have the prerogative to appoint members of the board given the government exposure in this regard
  - **Generation licence and allocation** of MW in terms of the IRP, of which we believe this issue needs to be addressed under the Electricity Regulation Act
  - **Bulk electricity supply and network tariffs**, the Bill does not address this issue because the regulator is required to approve the tariffs in this regard. Any tariff issues will have to be addressed under the Electricity Regulation Act
  - **ISMO customers** not clearly defined in the Act and there is a need to clarify this.



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# Response to comments submitted during the PPC public hearings



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# General comments

- **Number of submissions indicated that planning for new generation capacity must be done by ISMO. Motivation for submission:**
  - Government does not have capacity to develop the plan
  - Government will take very long to develop the plan
- **There are also submissions that were advocating for the planning function to remain with government. Motivation for this submission:**
  - Planning for new generation capacity is highly dependent on policy consideration
  - Policy is not static but evolving with time
- **Response**
  - The current version of the Bill allows the ISMO to model different scenarios for consideration by the Minister
  - A plan is made of the different scenarios to be developed by ISMO and the Minister will only make policy inputs into the Plan which would have been developed by ISMO



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# General comments

- **Procurement for new generation capacity to be with ISMO. This comment is motivated by:**
  - Lack of capacity within government to run the procurement programme
  - Procurement for new generation capacity is very complex
- **Response**
  - ISMO will conduct the procurement of new generation capacity
- **IRP must be flexible enough to allow for building of power outside the plan. This submission is motivated by:**
  - Any person with cheaper option should be allowed to build outside of the IRP
  - Innovation needs to be encouraged
- **Response:**
  - This point needs to be addressed under the ERA amendment. However, the building of new generation capacity needs to be controlled to avoid excess capacity. The proposed amendment under ERA requires the Minister to issue a determination for such power



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# General comments

- Transparency with regards to the allocation of MW between Eskom and IPP
- Response:
  - The allocation of MW is a policy issue and requires Cabinet approval. The decision as to whether Eskom or IPP is outlined in the regulations
- The role of the regulator in new generation capacity needs to be clarified. Submission is motivated by:
  - The role of the regulator in the procurement programme not being clearly defined. The regulator must play an oversight role in the development of the IRP
  - Licensing of IPP under the IPP procurement programme
- Response:
  - This is an Electricity Regulation Act issue, the Act is currently under amendment, the department will respond accordingly in due course.



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# General comments

- Independence of the transmission lines. This submission is motivated by:
  - Eskom may not grant the necessary access to the transmission line
  - The building of the transmission lines must accommodate all future potential generators including IPPs
- Response:
  - This is a valid concern but the financial impact associated with the transfer of lines needs to be addressed accordingly
  - The matter is still under discussion at the intergovernmental level for recommendation to Cabinet
- The Bill is silent about ISMO customers, the definition of these customers may:
  - have an impact on the market structure
  - Affect the revenue for electricity distribution
- Response:
  - Access to electricity wholesale will be phased in over time
  - Detailed phased in approach will form part of the regulations which will be done with consultation the affected stakeholders
  - More details with regards to qualifying customers will be addressed through regulations



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# General comments

- Who will regulate the transmission network to ensure fair access by IPP? Submission motivated by:
  - Eskom is conflicted because owns both generation and the transmission network
  - Eskom may be tempted to give preference to its own generators in terms of access to the transmission network
- Response
  - The regulator will remain responsible for the regulation of the transmission network in terms of the ERA, to be amended accordingly
  - Difficulty associated with such regulation is noted and may possibly be resolved in the future through the removal of the transmission network from Eskom
- ISMO must be a non profitable entity to minimise the cost to the consumer. Submission motivated by:
  - ISMO will increase the cost of electricity to the consumer
- Response:
  - The ISMO functions are currently performed by Eskom and is part of the tariff already
  - Thus it is important to ensure that the existing staff within Eskom is transferred with the functions



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# General comments

- Why ISMO reporting to DoE whilst Eskom is reporting to DPE? Submission motivated by:
  - SOE's are managed by the DPE
- Response:
  - ISMO needs to be independent from Eskom, reporting to DPE may compromise such independence
  - ISMO will serve as adviser to the department on matters pertaining:
    - The required new generation capacity
    - The split in MW between Eskom and the IPP
- Clarity on the ESI end state. Submission motivated by:
  - The industry cannot be restructured in a vacuum
  - Vision for the industry before commencing any restructuring
- Response:
  - The Multi Market Model was proposed in 2003 and it was later reversed because there was no appetite to sell part of Eskom
  - The Energy White Paper is clear about the need to restructure the electricity sector
  - The Energy White Paper envisaged competition in electricity generation, ISMO is part of the restructuring process which will eventually result in competition in electricity generation



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# General comments

- Phased in approach, motivated by:
  - Ensuring security of supply
- Response:
  - The department supports the phased-in approach. The transfer of functions to ISMO will be addressed through regulations
  - It is agreed that procurement and planning must be transferred first to ISMO but not to Eskom subsidiary. These two functions have little impact on security of supply
  - Government is currently performing these functions
  - Government agrees with conducting due diligence studies before transferring the wholesale market and the system operation
- Financial sustainability of ISMO
  - ISMO will require government support before signing long term contracts
  - Government will have to support ISMO
- Response:
  - The department engaged National Treasury on this matter and they are comfortable with providing support to ISMO
  - Financial due diligence will be conducted to minimise the impact on Eskom



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# General comments

- Mechanism to manage cross-subsidies required, this submission is motivated by:
  - Large customers are currently subsidising certain customers within the value chain
  - Eskom is currently managing these subsidies
- Response:
  - Cross subsidies are better managed by ISMO than a generator
  - All customers must be given similar treatment despite their location on the electricity network
- Assets transfer, this submission is motivated by:
  - The bill must guide the Minister in the event that the Eskom board and ISMO do not agree
  - Market value may be used as a guide to the Minister in making a ruling in this regard
- Response:
  - It will be dangerous to stipulate the evaluation method in the Bill, it is important for the state to consider all the different options for compensating Eskom for the transfer of assets



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# General comments

- Clarity regarding large customers with long term contract with Eskom, submission motivated by the:
  - Lack of definition for ISMO customers
  - Fact that Eskom might be selling electricity to certain customers at low cost
  - Complications related to the transfer of the long term contracts to ISMO
- Response:
  - It is important to conduct due diligence studies before defining ISMO customers
  - To allow all large customers into the electricity wholesale, all distributors must be in a position to separate energy cost from network cost
  - It might be necessary to keep on adjusting the definition over time depending on the readiness of the sector to allow more customers access to the electricity wholesale
  - Therefore, it is appropriate to address such ISMO customers through regulations



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# General comments

- Transfer of employees. Submission motivated by:
  - The Labour Relations Act provides for transfer of employees also provided for in this Act
- Response:
  - Section to be revised accordingly. Section 40 will refer to the Labour Relations Act in terms of the transfer of employees
- ISMO governance. Submission motivated by:
  - The Memorandum of Incorporation is over prescriptive
  - Some of the provisions must be in the MOI not in the legislation
  - Section 26(1) constrains the delegation function by the board
  - Why is appointment of staff the responsibility of the CEO only?
- Response:
  - Section to be revised accordingly.



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# General comments

- Concerns about the grid monopoly, this submission is motivated by:
  - Challenges related to connection in both transmission and distribution network
  - Challenges related to wheeling charges
- Response:
  - Transmission and distribution will remain a monopoly and need to be regulated properly but a transmitter must not necessarily be involved in generation
  - The National Energy Regulator Act is being amended to ensure effectiveness of the regulator in regulating the energy sector including wheeling
- Open access to the transmission and the distribution network, submission motivated by:
  - The need for wheeling for own use
  - Lack of clarity about wheeling buyer wheeling seller
- Response:
  - This is an Electricity Regulation Act issue
  - The ERA is currently being amended to allow for effective regulation including the above



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# General comments

- The amendment to the ERA and the NERA and the reference to the ISMO Bill is unconstitutional
  - ERA is currently under amendment. Some of the definitions in ISMO assume that ERA amendments will be adopted by Parliament
  - There is a need to deal with ISMO Bill and the related amendment bills simultaneously
- Response:
  - The definitions will be reviewed
  - ISMO definitions must not refer to proposed definitions under ERA
- The Bill does not refer to the consultation paper published by the regulator on wheeling charges, this submission is motivated by:
  - The need for third party access rules and guidelines that will allow for wheeling arrangements
- Response:
  - Wheeling is a regulatory issue and it is not the function of ISMO
  - The regulator developed the consultation paper under the ERA



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# General comments

- There is a need for an Electricity Council to play an advisory role to the department. Submission motivated by:
  - Involve stakeholders in the development of electricity policies and legislations.
- Response:
  - Proposal noted and it will be communicated accordingly



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# Definitions

- Definitions – general:
  - There is a need to align the definitions with the new Companies Act, the ERA and the grid codes
- Response:
  - Definitions will be aligned accordingly
- Definition of Ancillary Services
  - There is no need to list ancillary services as these may be changed with time
- Response:
  - Definition to be revised accordingly
- Definition of grid code
  - There is no need to refer to “grid code”, the ERA refers to “code”
- Response:
  - Definition to be changed accordingly



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# Definitions

- Definition of “ISMO customer”
  - Definition should separate energy suppliers to ISMO from those purchasing electricity from ISMO
- Response:
  - The impact on the definition is not clearly outlined in the submission
  - Therefore definition was not changed
- Definition of “national control centre”
  - should be changed to mean “the control centre operated and maintained to ensure continuous and reliable operation of the (n)IPS”
- Response:
  - Definition amended accordingly
- “Transmitter” and “expansions plan” is not defined
  - this definition might have been defined in the IRP but not in the Bill
- Response:
  - Transmitter will be replaced with Transmission Operator whilst expansion plan will be defined



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# Definitions

- **Definition of “IPP” refers to the private sector not co-operatives> Submission is motivated by:**
  - There is a need to allow community projects to participation in the renewable energy space
  - The Bill does not refer to IPP but the memorandum refers to IPP in a manner that excludes community projects
  - The current IPP programme does not provide for community driven projects
- **Response:**
  - IPP is defined in the new generation capacity regulation not in the ISMO Bill
  - In terms of the regulations, government cannot hold majority share in an IPP whilst the private sector is not defined
- **There is a need for a socially owned renewable programme. Submission is motivated by:**
  - Need for Municipal and co-operatives participation in the renewable energy
  - The current RE procurement programme excludes municipalities and communities
- **Response:**
  - Municipalities cannot hold a controlling share in the current procurement programme because they are government
  - Government may not compete with the private sector, municipalities are expected to act as a buyer for this power especially with small projects
  - However, the community may participate



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# Object of the Act and ISMO function

- **Object of the Act**
- **In section 2(f)**
  - Delete “maintenance and”
  - Dispatch in section 2(h) is not necessary
- **Response:**
  - Section will be amended accordingly
- **Functions of ISMO**
  - In reference to the grid code to avoid details in each section
  - In section 4(1)(b) “transmitter should be changed to “Transmission Operator”
  - Minor alterations were made relating to drafting
- **Response:**
  - The Bill to be amended accordingly



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# Specific comments per section

- **Section 32 – ISMO fees, tariffs and charges. Submission motivated by:**
  - ISMO should also have the powers to instruct network operators to disconnect supply to defaulting customers
  - Network operator should also be allowed to terminate supply for defaulting network changes
- **Response:**
  - Proposal to be included accordingly
- **Section 33(2) – this section might be conflicting with the functions of the regulator with regards to approval of tariffs. Submission motivated by:**
  - there is a concern that the section allows the court to determine tariffs
- **Response:**
  - The reference to the court will be removed



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# Specific comments per section



- **Section 38 – offences and penalties. Submission motivated by:**
  - Failing to provide information as requested by the Minister should not be regarded as an offence
  - This section implicates the employees of ISMO
- **Response:**
  - The department requested further opinion on this section and they are of the view that it is standard practice to criminalise such behaviour during investigation proceedings
  - This section applies only when there is an investigation on the affairs of ISMO and it is important for the employees to provide correct information



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# Specific comments per section

- **Section 40 – transfer of assets, right, liabilities and obligations**
  - Clarity required with regards to the transfer of assets and the impact on Eskom balance sheet and loan covenants
  - The Bill must be clear that Eskom will be paid for these assets
  - There is no need to regulate the transfer of employees in the ISMO Bill, The LRA has sufficient provisions to deal with the transfer
- **Response:**
  - Clarity will be provided for in regulations, following the outcome of the due diligence
  - There might be other options for compensating Eskom for the loss of assets to ISMO, therefore there is no need to mention payment at this point
  - On transfer of employees the Bill will refer to the LRA as recommended



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# Closing Remarks

- Majority of the submissions support the Bill, inputs made intended to improve the content of the Bill
- Drafting proposals were not incorporated into the presentation but were considered by the legal team and incorporated into the Bill.
- Most of the critical issues raised in the submission relate to the Electricity Regulation Act and it will be helpful in the finalisation of the proposed amendment
- It was expected that transmission and wheeling will form bigger part of the submission but it is unfortunate that it falls outside the scope of this Bills



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