REPUBLIC OF KENYA

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28/11/23

THE NATIONAL ASSEMBLY

THIRTEENTH PARLIAMENT – SECOND SESSION – 2023

DIRECTORATE OF DEPARTMENTAL COMMITTEES

DEPARTMENTAL COMMITTEE ON ENERGY

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REPORT ON BENCHMARKING/ STUDY VISIT TO THE ENERGY ACTORS IN SOUTH AFRICA: 3RD - 8TH OCTOBER, 2023.

CLERK'S CHAMBERS

DIRECTORATE OF DEPARTMENTAL COMMITTEES

PARLIAMENT BUILDINGS

NAIROBI

OCTOBER 2023

CHAIRPERSON'S FOREWORD

Arising from the motion on Reduction of Cost of Electricity in the country by the Hon. Jane Kagiri, OGW, MP, the Hon. Speaker on Wednesday 19th April, 2023 directed that the Departmental Committee on Energy conducts an inquiry into the reduction of electricity costs in the country and report its findings and recommendations to the House within one hundred and twenty (120) days pursuant to Standing order 218(2).

The electricity sub-sector plays a critical role in the country's economy given its trickle- down effect on all the other economic sectors. At the core of electricity pricing in the country is the issue of management of Power Purchase Agreements (PPAs) and the whole spectrum of Independent Power Producers.

A review of existing literature on the best practices on the management of PPAs reveals that South Africa has had similar experiences as Kenya, but has managed to radically remodel the system especially through introducing competitive procurement in onboarding of IPPs to the advantage of consumers.

It is therefore arising from this that the Committee undertook a benchmarking visit to South Africa, in order to appraise itself with the measures the country took to address the rising cost of electricity among other issues, given that that the electricity supply industry of South Africa is the largest in Sub-Saharan Africa, accounting for over 40 percent of the total installed capacity in the region. The delegation comprised of the following;

1. Hon Vincent Musyoka**, MP- Chairperson/Leader of delegation**
2. Hon. Tom Odege, MP
3. Hon. Cecilia Asinyen, MP
4. Mr. Brian Njeru - **Fiscal Analyst/Delegation Secretary**

The Committee takes very seriously the responsibility that has been bestowed upon it by the Constitution and House Standing Orders and endeavors, at all times, to discharge this responsibility with utmost objectivity. The visit provided a learning environment for Members of the Committee on thematic topics and areas of engagement which will help improve on its operations and support it in strengthening its oversight role.

The Committee also acknowledges the support of the Office of the Speaker of the National Assembly, and that of the Clerk in facilitating the Committee to execute its mandates.

It is therefore my singular duty and privilege, pursuant to Standing Order 199(6) of the National Assembly Standing Orders and on behalf of the Departmental Committee on Energy, to present this Report to the House for consideration and adoption.

SIGNED: _____ **DATE:** 22/11/2023

HON. (ENG.) VINCENT MUSYOKA M.P.
CHAIRPERSON, THE DEPARTMENTAL COMMITTEE ON ENERGY

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PART I

1. PREFACE

1.1 Establishment and Mandate of the Committee

1. The Departmental Committee on Energy is established pursuant to the provisions of Standing Order No. 216. The Committee is mandated to;

   i) investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations and estimates of the assigned Ministries and departments;

   ii) study the program and policy objectives of Ministries and departments and the effectiveness of the implementation;

   iii) study and review all legislation referred to it;

   iv) study, assess and analyze the relative success of the Ministries and departments as measured by the results obtained as compared with their stated objectives;

   v) investigate and inquire into all matters relating to the assigned Ministries and departments as they may deem necessary, and as may be referred to them by the House;

   vi) to vet and report on all appointments where the Constitution or any law requires the National Assembly to approve, except those under Standing Order 204 (Committee on Appointments);

   vii) examine treaties, agreements and conventions;

   viii) make reports and recommendations to the House as often as possible, including recommendation of proposed legislation;

   ix) make reports and recommendations to the House as often as possible, including recommendation of proposed legislation;

   x) consider reports of Commissions and Independent Offices submitted to the House pursuant to the provisions of Article 254 of the Constitution; and

   xi) examine any questions raised by Members on a matter within its mandate.

2. In accordance with the Second Schedule of the Standing Orders, the Committee is mandated to consider matters relating to the Fossil Fuel Exploration, Development, Production, Maintenance and Regulation of Energy.

3. In executing this mandate, the Committee oversees the following State Departments:

   i) The State Department for Energy

   ii) The State Department for Petroleum

1.2 Membership

4. The Departmental Committee on Energy was constituted by the House on 27th October, 2022 and comprises the following Members:

Chairperson
Hon. (Eng.) Vincent Musyoka Musau, MP
Mwala Constituency
United Democracy Alliance Party

Vice Chairperson
Hon. Lemanken Aramat, MP
Narok East Constituency
United Democracy Alliance Party

Members

The Hon. Charles Gimose, MP.
Hamisi Constituency
Amani National Congress Party

The Hon. Richard Chonga, MP.
Kilifi South Constituency
Orange Democratic Movement (ODM)

The Hon. Musili Mawathe, MP.
Embakasi Constituency
Orange Democratic Movement (ODM)

The Hon. Tom Mboya Odege, MP.
Nyatike Constituency
Orange Democratic Movement (ODM)

The Hon. Cecilia Ngitit, MP
Turkana County Women Representative
United Democracy Alliance Party

The Hon. Geoffrey Mulanya, MP
Nambale Constituency
Independent Party

The Hon. George Aladwa, MP
Makadara Constituency
Orange Democratic Movement (ODM)

The Hon. Elisha Odhiambo, MP.
Gem Constituency
Orange Democratic Movement (ODM)

The Hon. Walter Owino, MP.
Awendo Constituency
Orange Democratic Movement (ODM)

The Hon. Simon King'ara, MP
Ruiru Constitituency
United Democracy Alliance Party

The Hon. Augustine Kamande, MP
Roysambu Constituency
United Democracy Alliance Party

The Hon. Victor Koech, MP
Chepalungu Constituency
Chama Cha Mashinani(CCM)

The Hon. Nolfason Obadiah, MP
Borabu Bomachoge Constituency
Orange Democratic Movement (ODM)

1.3 Secretariat

5. The following technical staff facilitate the Committee;

Mr. Adan Gindicha
Principal Clerk Assistant (Team Leader)

Ms. Mary Lemerelle
Clerk Assistant II

Mr. Salim Athman
Clerk Assistant III

Ms. Brigitta Mati
Legal Counsel I

Mr. Brian Njeru
Fiscal Analyst III

Mr. Robert Langat
Research Officer III

Ms. Loraine Onyiego
Research Officer III

Ms. Carolyne Musyoka
Hansard Officer

Ms. Rehema Chepkurui
Audio-Recording Officer

Mr. Josphat Bundotich
Principal Sergeant at Arms

PART II

2. BACKGROUND OF SOUTH AFRICA

2.1 Overview of South Africa

6. South Africa is a diverse and vibrant nation with a population of around 60 million, located at the southernmost tip of the African continent. The capital is Pretoria, Cape Town is the legislative capital, and Johannesburg is its largest city.

7. The Nation is known for having a wide variety of scenery, including rugged mountains, vast savannahs, and arid deserts. Its geographical diversity is a mirror of its multicultural culture, which is made up of a variety of ethnic groupings, with the majority being Black South Africans, followed by those of European descent, Asians, and a small but considerable number of individuals of mixed racial origin.

8. South Africa's history is intricate, influenced by indigenous African cultures, Dutch and British colonialism, and the apartheid struggle, which led to its democratic transformation in 1994.

9. South Africa's constitution recognizes 12 official languages, the fourth highest in the world. Zulu and Xhosa are the most spoken first languages, followed by Afrikaans (13.5%), developed from Dutch, and English (9.6%), a legacy of British colonialism, used in public and commercial life.

10. South Africa's economy is a mix of industrialized and technologically advanced, making it the second largest in Africa and 39th largest globally. South Africa faces high poverty and unemployment rates, ranking among the top ten countries globally for income inequality.

11. South Africa, a key member of international organizations like the United Nations and the African Union, significantly contributes to regional diplomacy and peacekeeping efforts in Africa.

12. The country's diverse cultural heritage is showcased through various art forms, music, dance, and literature, fostering creativity and artistic expression.

13. South Africa offers a diverse range of tourist attractions, including natural landscapes, game reserves, cultural heritage, and renowned wines. Popular destinations include Kruger National Park, KwaZulu-Natal and Western Cape provinces, and major cities like Cape Town, Johannesburg, and Durban. These destinations cater to both domestic and international tourists.

2.2 Energy

14. South Africa generates 42,000MW of its electricity (85%) from coal-fired power stations. Renewable energy technologies like wind, solar PV, and CSP contributed 7.3% to the mix in

2022, but solar generation output decreased for the first time in 2022. Energy consumption was predicted to recover after a significant decline in 2020 due to the coronavirus (Covid-19) pandemic, with an average annual rate of growth of 0.3 percent throughout the projected period (2021-30), according to the Economists report in 2021.

2.2.1 State Owned Utility

15. Electricity infrastructure consists of three sub-sectors: generation, transmission, and distribution. Eskom dominates generation, generating, transmitting, and distributing electricity to various South African customers and municipalities. The utility also purchases electricity from Independent Power Producers (IPPs) through various agreement schemes and generating facilities beyond the country's borders. South Africa's electricity sector is a crucial part of the country's energy mix, with most power stations being owned and operated by the state-owned Eskom.

16. Eskom was established in 1923, and is South Africa's largest electricity producer and state-owned enterprise, operating notable power stations like Matimba, Medupi, Kusile, Kendal, and Koeberg Nuclear Power Station. Eskom's Generation Division comprises 15 coal-fired power stations with an installed capacity of 44,013 MW. Koeberg, Africa's first nuclear power station, is a base load station with a capacity of 1,934 MW of power. Eskom generates 95% of South Africa's electricity, with a high electrification rate of 66% in rural areas and 93% in urban areas. It sells to Zimbabwe, eSwatini, Botswana, Lesotho, Mozambique, and Namibia. Eskom utilizes various technologies for electricity generation, known as the 'plant mix', and is continuously exploring renewable energy sources to expand its current energy mix. Eskom's plant mix predominantly comprises coal-fired base load power stations. These stations utilize coal as their primary energy source and operate round-the-clock to meet the daily electricity demand.

17. ESKOM currently plays the 3 roles of generation, transmission and distribution however in February 2022, the Government of South Africa introduced a Bill amending the Electricity Regulation Act (2006) to support the transition of the country's vertically integrated electricity industry, dominated by the state-owned company Eskom, to a multilateral and competitive one overseen by a transmission system operator (TSO).

2.2.2 Independent Power Producers (IPPs)

18. Through programs like the Independent Power Producer Procurement (IPPP) program, the South African government introduced independent power producers. The Department of Mineral Resources and Energy's IPP Programme has led to an increase in electricity production from renewable sources, primarily wind and solar projects in the Eastern, Western, and Northern Cape regions.

PART III

3. BENCHMARKING VISIT TO SOUTH AFRICA PRESENTATIONS

19. The benchmark and study visit was organized into various sessions with different thematic areas under discussion. The sessions were plenary sessions; involving the National Energy Regulator Of South Africa (NERSA), Independent Power Producer Office (IPP Office) and ESKOM. The Delegations attended the various sessions of the visit which relate to the objectives/areas of interest as participants and contributed to various discussions during plenary.

3.1 Day 1: Wednesday 4th October 2023

3.1.1 Presentation by NERSA

20. The delegation attended a session by NERSA at Tinkuni boardroom, where they were briefed on the structure and functionality of the National Energy Regulator of South Africa (NERSA.)

The delegation following proceedings of the presentations by the NERSA Team at NERSA HQs

21. NERSA was formed to regulate the Electricity Industry, Piped-gas Industry and Petroleum Pipelines Industry as outlined in the Electricity Regulation Act, 2006, Gas Act, 2001 and the Petroleum Pipelines Act, 2003 respectively. The NERSA's mandate is anchored in 4 Primary Acts, 3 Levies Acts and 3 facilitating Acts. The Minister of Energy appoints 9 Regulatory Members into NERSA; 4 of which are full-time regulator members (FTRM) and hold office for a period of 5 years, while 5 are part-time regulator members (PTRM) who hold office for a period of 4 years. The FTRM are the Chief Executive Officer and 3 Members each primarily responsible for Electricity, Piped Gas and Petroleum Pipelines industry regulation. The chairperson and the vice-chairperson are both PTRM.

22. There are 3 regulatory subcommittees under NERSA, namely Electricity Subcommittee (ELS), Piped-gas Subcommittee (PGS) and the Petroleum Pipelines Subcommittee (PPS). All 3 committees meet monthly and have a membership of 6; that consist of 4 FTRM and 2 PTRM, chaired by the regulatory member responsible for that docket. These regulatory committees are open to the public, except where confidential matters are considered. The Regulator Executive Committee (REC) is a cross-cutting sub-committee which holds meetings twice a month and considers regulatory activities as delegated by the Energy Regulator in the Delegation Matrix, and operational matters. All FTRM of NERSA and are members of REC and is chaired by the CEO.

23. NERSA has 3 governance committees namely; Human Resource & Remuneration committee, Audit and Risk committee and the Finance committee which are not open to the public. The 3 governance committees are all chaired by a PTRM and have quarterly meetings. The Human Resource & Remuneration committee has 3 members, 2 of which are PTRM and 1 FTRM. The Audit and Risk committee has 3 members and is chaired by a PTRM (the deputy chairperson) of NERSA. The Chairperson of ER and CEO are invitees of this committee. The Finance Committee has 5 Members – 2 Part-Time, 2 Full-Time and 1 external member.

24. The NERSA structure is made up of 6 divisions, (with a number of departments), all headed by Executive members and 5 Specialized Support Units that are all headed by Senior Managers. The 6 divisions are: Electricity Regulation, Piped-Gas Regulation, Petroleum Pipelines Regulation, Corporate Services, Human Resources, Finance and Administration. The 5 specialized units are: Strategic Planning and Monitoring, Regulator Support, Internal Audit, Regulatory Analysis & Research and CEO's Office Operation. The total approved staff complement is 253 (current strength= 228)

25. The National Energy Regulator Act (NERA) Section 9 (1) (c) provides that the Regulator must act independently of any undue influence or instructions. The Energy Regulator does its regulatory functions in line with its regulatory principles & governing legislation. In order to achieve regulatory independence, the ER has developed regulatory mechanisms such as policies, procedures, rules, guidelines, systems which makes its decision-making process to be open, transparent, credible, consistent, predictable.

26. NERSA ensures that public participation takes place in all its processes to achieve a culture of accountability, openness and transparency as required by the Constitution of South Africa and the Promotion of Administrative Justice Act. Energy Regulator meetings are open to the public, except when confidential matters are discussed. Applications for tariffs (i.e., Eskom MYPD applications) and licenses are also advertised for public comments. Consultation papers, methodologies and guidelines are advertised for public comments. Public hearings

take place during which stakeholders may provide comments and the final decisions by the Energy Regulator take comments into account.

The Kenyan delegation at NERSA HQs in a photo session with the NERSA team led by Mr. Thembani Bukula – Chairperson /Head of the NERSA Delegation

27. Section 10 of the National Energy Regulator Act (NERA) provides that every decision of the Energy Regulator must be:
    - In writing, consistent with the Constitution and all applicable laws
    - In the public interest
    - within the powers of the Energy Regulator as set out in the National Energy Regulator Act (NERA) and the industry Acts
    - taken within a procedurally fair process in which affected persons have the opportunity to submit their views and present facts and evidence
    - based on reasons, facts and evidence (summarized and recorded)
    - explained clearly as to its factual and legal basis and reasons therefore

28. Decisions and reasons of the Energy Regulator must be available to the public (in terms of the PAIA) and any persons affected by a decision of the Energy Regulator may take it for judicial review to the High Court (in terms of PAJA). Any persons affected by a decision of the Energy Regulator sitting as a Tribunal may appeal to the High Court.

Table 1:Regulatory environment governed by NERSA

Electricity Regulation	**Petroleum Pipelines Regulation**	**Piped Gas Regulation**
Licensing: Generation, Transmission, Distribution, Import & Export, and Trading	**Licensing**: Petroleum pipelines Operation, Construction, Storage and Loading	**Licensing:** Piped gas Construction, Conversion, Operation and Trading
Tariffs and Price: Setting or approval	**Tariffs and Price**: Setting or approval	**Tariffs and Price**: Approve maximum prices, Monitor/Approve and if necessary, regulate tariffs

Electricity Regulation	Petroleum Pipelines Regulation	Piped Gas Regulation
Setting of License conditions and Standards	Setting of License conditions and Standards	Setting of License conditions and Standards
Monitoring, Compliance and Dispute Resolution	Monitoring, Compliance and Dispute Resolution	Monitoring, Compliance and Dispute Resolution
Issuing Rules	Issuing Rules	Issuing Rules

Source: NERSA

3.1.2 Briefing by the Electricity Subcommittee (ELS) of NERSA

29. The delegation was briefed on the IPPs from the ELS's perspective. The public auction, IPPO are managed by the DMRE and Bid rounds have de-risked investments and prices have fallen.

30. Price and escalation for competitive bids are set by the bid and approved by the Regulator. The long term PPAs have a sovereign guarantee, with Eskom being the single buyer. Curtailment has no capacity charges for renewable, non-dispatchable generation, but there's deemed energy, where not all energy generated is paid for. (Cap on payments).

31. The key learnings from the committee presentation were that; there is need for diversity of supply, dispatchable energy is critical to managing peak and unplanned outages, unbundled tariffs to ensure capacity changes are transparent and early involvement of Regulator to verify PPAs are cost reflective.

3.2 DAY 2: Thursday 5th October 2023

3.2.1 Overview of the IPP Office Presentation

32. The delegates were taken through the formation and functionality of IPP Office and the Procurement Programme as well as the Key Economic Development Features.

33. The IPP Office was established in 2010 to provide rapid solutions to South Africa's severe electricity supply constraints, by procuring new energy generation capacity from Independent Power Producers (IPP). The IPPO is a project office hosted by the Development Bank of Southern Africa (DBSA) under a Memorandum of Agreement (MOA) between the Department of Mineral Resources and Energy, National Treasury and DBSA. The notable observation is that the IPP Office is not a judicial entity.

34. The IPPO is mandated to enhance private sector participation in electrical power general capacity in the country, whilst contributing to broader national development objectives. The office offers specialized services to the government in respect of; Energy Procurement

Management, Professional Advisory Services and Monitoring, Evaluation and Contract Management.

The Kenyan Delegation at the IPP-Office for briefing by Mrs.Dzunan Makgopa,Head of Finance and Ms. Lelanie Swart,Ag.Head of Strategy and Communications and PR

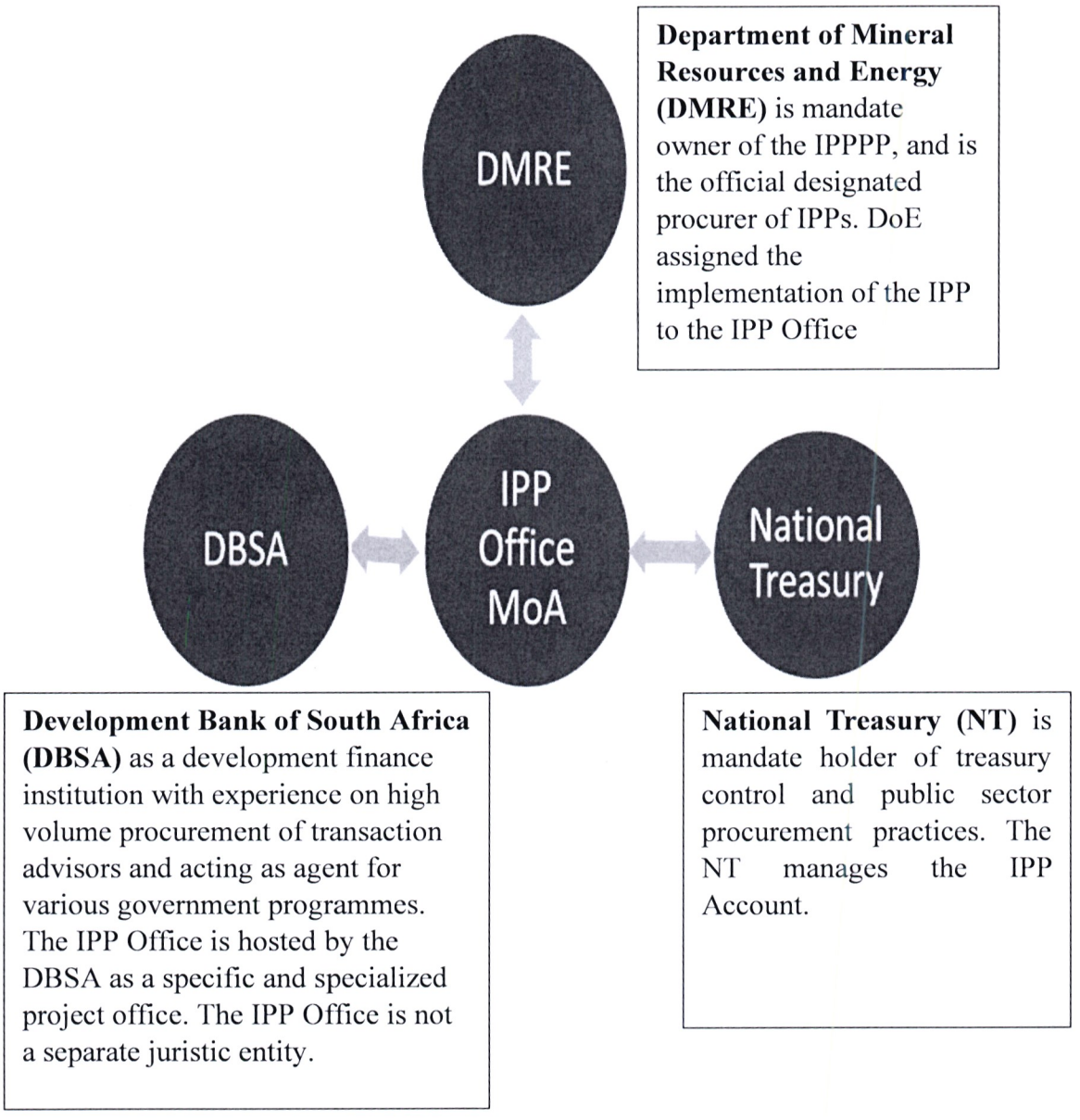
3.2.1.1 Memorandum of Agreement(MOA) establishing the IPP Office

35. The IPPO is not a juristic entity and operates as a project office of around 48 staff, within the Frame work of a Tri-Partite Memorandum of Agreement.

36. The delegation was also informed that the IPP Office is self-funding generating revenue through registration and development fees payable by IPPs. Fees are paid into the ring-fenced IPP account, for the purpose of recovering IPP Procurement and IPPO Costs.

37. The three parties to the MoA has established a Joint Implementation Committee(JIC) that provides governance oversight of the IPP office and the IPPPP implementation, as indicated in the Figure 1 below;

FIGURE 1:MEMORANDUM OF AGREEMENT FOR THE IPP OFFICE



3.2.1.2 Overview of the IPP procurement Process

38. The procurement mandate and the implementation framework are based on the South African planning and policy frameworks such as: White Paper on Energy Policy 1998, the White Paper on Renewable Energy 2003, Electricity Regulation Act (ERA) and the Electricity Regulations on New Generation Capacity under the ERA, National Development Plan (NDP), Integrated Energy Plan (IEP) and the Integrated Resource Plan (IRP) for electricity.

39. In line with the provisions of ERA and the New Gen Regs, the Minister in consultation with NERSA issue a determination which sets out the MW required, IRP and new capacity source, the technology to be used, the grid connection, timelines and confirmation on who should be the procurer and the buyer.

40. The Minister determines DMRE as the procurer which then gives mandate instruction to IPP Office to procure on its behalf. It is critical to note that the DMRE ,through IPP office, procures electrons from IPPs and not Infrastructure.

41. The procured IPPs are onboarded in to the grid following a competitive bidding process develops,finances,constructs,operates and maintains plant over 20 years and sells MW capacity in accordance with the PPP with ESKOM and implementation agreement with DMRE.

42. ESKOM then buys MW from IPP at agreed R/MWh price, and recovers cost through tariff, approved by NERSA, while ESKOM is also mandated to develop and maintain the grid.

43. The delegation was also informed that the Power Purchase Agreement (PPA) are rand denominated except for the thermal plants which are dollar denominated.

The head of the Kenyan Delegation, Hon. Eng Vincent Musyoka receiving a gift from Mrs.Dzunan Makgopa,Head of Finance at the IPP Office.

3.2.1.3 IPP Programme Strategic Outlook

44. From the Integrated Resource Plan (IRP) 2019, the IPP Office is mandated to procure over 28.5 GW of new generation capacity from the private sector by 2030 as indicated in table 2;

Table 2:IPP Programme strategic outlook

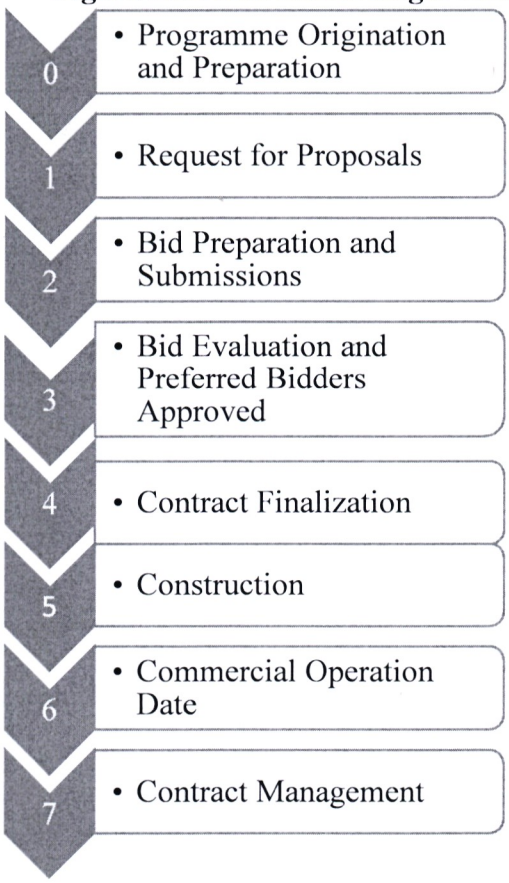
	1st Determination (MW)	2nd Determination (MW)	3rd Determination (MW)	Share of Total Determinations (MW)	Target in IRP 2019 (MW)
Short term capacity gap	2000			9.00	2000 (100%)
Coal		1500		5.20	1500 (100%)
Energy Storage		513	1231	6.10	2088 (83%)
Solar PV		2000	3940	20.70	6000(99%)
Wind		4800	9600	50.30	14400(100%)
Gas and Diesel		3000		10.50	3000(100%)
Total Determinations	**2000**	**11813**	**14771**		

Source:IPP Office

3.2.1.4 Procurement Stages and Milestones

45. Within the scope of determined capacity, each IPPPP bid round is initiated with a DMRE procurement instruction detailing a capacity allocation (or cap) and targeted technology mix) as outlined in figure 2 below;

Figure 2:Procurement stages and Milestones



0 – Analysis Buyer Services Requirements & Market Capability. Programme Conceptualization. Programme Feasibility. Strategic & Financial Programme Packaging. It takes between 0 and 6 months between 0 and 1.

1 – A bid round or bid window is opened with a request for proposals (RFP) issued to the market (A request for information (RFI) is often used in the bid preparation process, especially in the procurement of new technologies / approaches)

2 – Interested bidders prepare and submit bid submissions in response to the RFP within specified timelines. It takes between 3 and 4 months.

3 Qualifying bid submissions are adjudicated after an extensive evaluation process using Independent Advisors before preferred bidders are announced by DMRE and submissions in response to the RFP within specified timelines. It takes between 2 and 3 months.

4 Preferred bidders are required to finalize & sign all project & financing agreements and meet all required conditions contained in them, to reach financial close. It takes 6+ months.

5 & 6 Following financial close the construction phase of the IPP facilities commences. Each facility procured in terms of the IPPPP is required to complete commercial operation by no later than the dates set out in the RFP. Within this prescribed window period each IPP is contracted to their targeted commercial operation date (COD) which marks the successful completion and grid integration of the IPP. Process takes between 18 to 24 months.

7 Contract Management, compliance monitoring and evaluation over the lifetime of the projects.

3.2.1.5 Request For Proposal (RFP) Structure

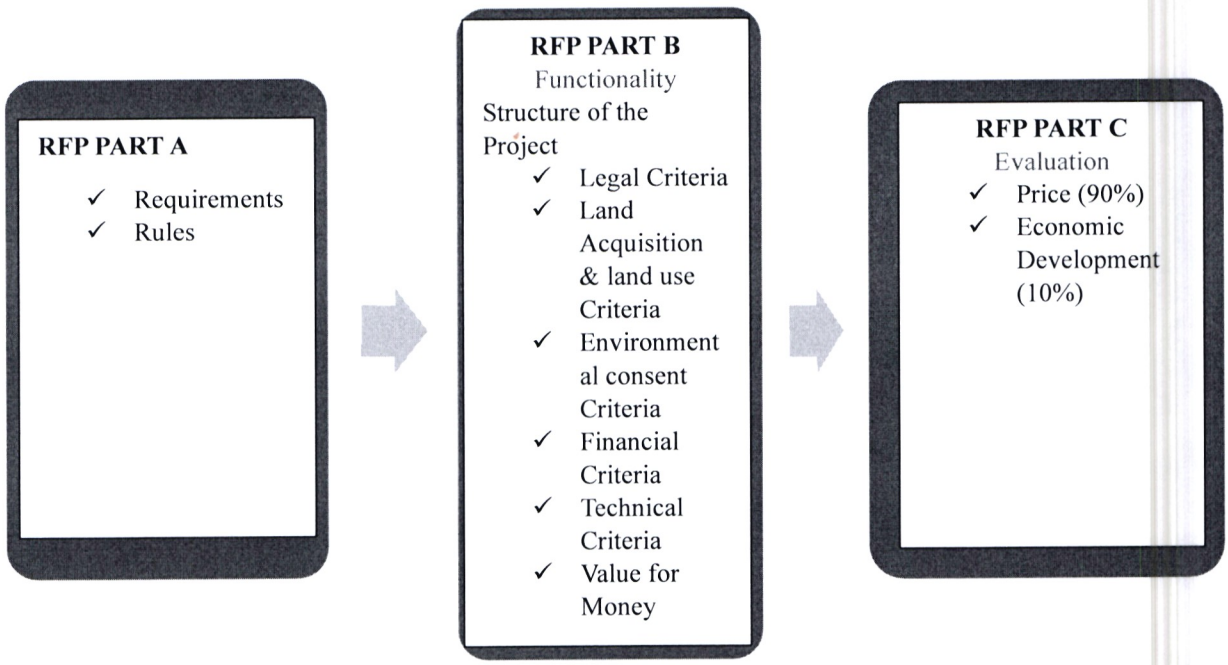
46. The delegation was also taken through the request for proposal (RFP) process which is divided into 3 parts and involves setting out the tender specifications.

47. The 1st part highlights the requirements and rules of the RFP.

48. The 2nd one is functionality focused and breaks down the structure of Projects, highlighting the legal, environmental, consent, financial, technical, land acquisition and land use and the value for money criteria.

49. The final part is the evaluation which is set at 90% price and economic development of 10%.

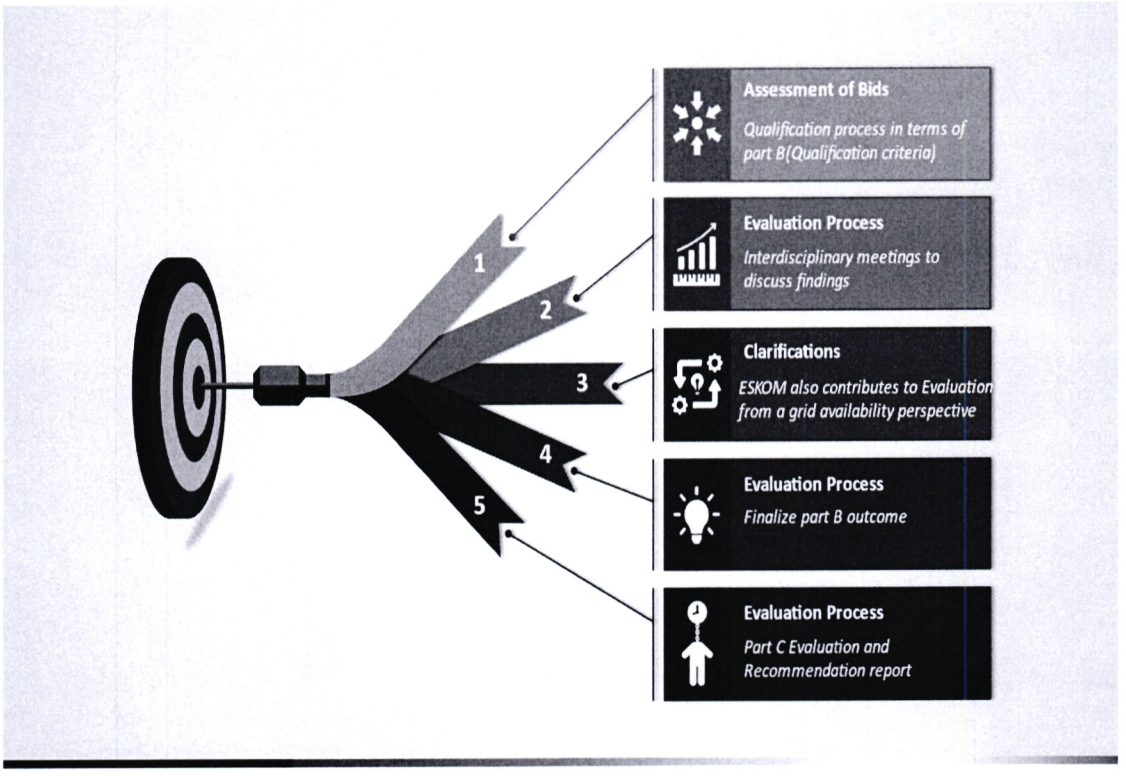
Figure 3:Procurement stages and Milestones



3.2.1.6 Evaluation Process

50. The IPP office does not have any powers over the evaluation, recommendation or approval of preferred bidders as it's conducted in a highly secured environment by an independent evaluation team. The independent Evaluation Committee recommends to the Bid Adjudication Committee of the Department then the appointment of the Preferred Bidders is signed by the Director General, as outlined in figure 4;

Figure 4:Evaluation Process



3.2.1.7 Agreements Signed with IPPs

51. **The Implementation Agreement** -It provides comfort to the lenders in terms of Eskom Default under the PPA and Expropriation. Though it doesn't provide support for IPP default, it allows lenders to remedy the situation before terminating the agreements. Corrupt Act is dealt in accordance with RSA laws.

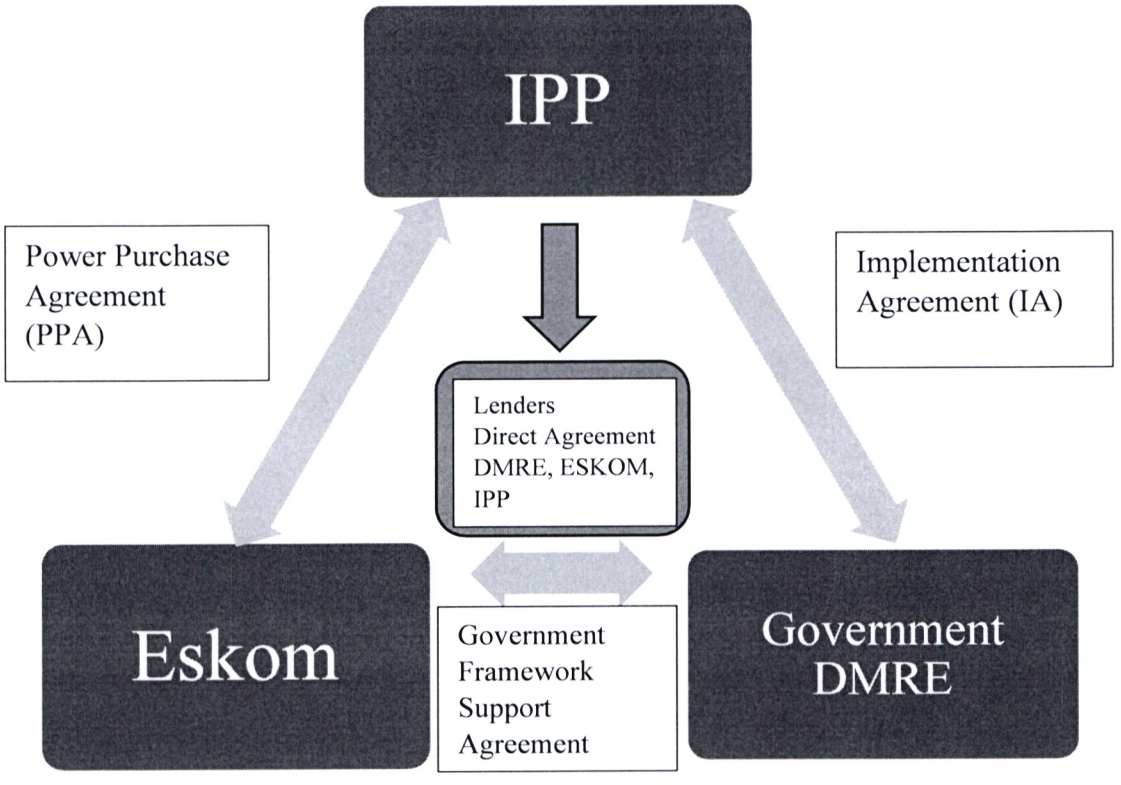
52. **Power Purchase Agreements**-Eskom purchases the electricity from the IPPs through their Power Purchase Agreements and sells it to the consumer, on a take or pay agreement in terms of RE but different for RMIPP or the Peakers.

53. **Direct Agreement**-It provides no compensation to the lenders for IPP default and allows lenders to step-in and remedy the default before termination.

54. **Government Support Framework Agreement**-It provides support to Eskom for its payment obligations under the PPA, and Eskom reports any potential risk that might trigger the government support.

55. **Connection Agreements with either-** The National Transmission Company (if the grid connection will be at transmission level), the distributor (if the grid connection is at distribution level) or the Self-Build Agreement with Eskom are into a municipal distribution agreement with the relevant municipality, as outlined in figure 5;

Figure 5:Agreements signed with IPPs



3.2.1.8 Economic Development Commitments Made by IPPs

56. On the commitments by IPPs ,the delegation was informed that Bidders are not compelled by the new PPPFA Regulations to make a commitment in any or all of the elements, though it remains the social responsibility of the Bidders to uphold the Economic Development achievements of the IPPPP.

57. Commitments made by Bidders are included in the Implementation Agreement as obligations and monitored for compliance with the following specific goals;
    - ***Job Creation*** (RSA citizens who are black, women, youth, people with disabilities and from communities)
    - ***Local Content*** *(Local* content spend during construction and operations)
    - *Ownership (*RSA Citizens, Black people, Black Women and local community ownership)
    - ***Management Control*** *(Black* people and Women at Board, Executive and Senior Management Level)

- ***Skills Development (Skills*** Development, Higher Education Bursaries for Black Students and skills development of people with disabilities
- ***Enterprise and Supplier Development*** (Preferential Procurement, Enterprise and Supplier Development)
- ***Socio-Economic Development (***Socio-Economic Development commitments in communities)

3.2.1.9 Community Shareholding and Trusts

58. The delegation was also informed that a minimum ownership by local communities in an IPP of 2.5% is required as a procurement condition, so as to ensure that a substantial portion of the investments has been structured and secured as local community equity. Shareholding for local communities has been structured through the establishment of community trusts, and an individual community's dividends earned will depend on the terms of each transaction corresponding with the relevant equity share.

3.2.1.10 National Achievements

59. On the achievements, the delegation was informed that the IPP Procurement Programme has been a major catalyst to introduce private sector players in the RE space in South Africa. Currently, 134 IPPs have been selected as preferred bidders, 11904 MW electricity capacity procured, R 334.5 billion investment attracted for energy infrastructure (all bid windows), 95547 GWh energy generated by Renewable Energy sources and 6180 MW already operational from 90 renewable IPPs.

60. One of the IPPPP's significant features is its focus on economic and socio-economic development impacts that IPPs commit to over the lifetime of the project. So far, 72153 employment opportunities have been created for South African Citizens during construction and operations, 114.7 million kiloliters of water saved since the inception of the programme, R 3.2 billion contribution realized for Socio-Economic development and Enterprise Development, 97.0 M ton CO2 offset by electricity generated by those projects, and shareholding of 38.7% by black south Africans and 9.6% by Local communities achieved.

3.2.1.11 Challenges

61. On the challenges witnessed in the IPPP Programme, the major challenge witnessed has been grid issues with ESKOM lacking sufficient resources to undertake major grid expansion arising from lack of access to funds from lenders due to their poor investment grade.

3.2.1.12 Refinancing Initiative (Refi)

62. On Refi,the delegation was informed that this initiative was launched in 2019 with an aim of reducing the Bid Window 1-4 tariffs to stimulate economic growth by passing any reduction in tariffs back to the consumer and the economy.

63. Sellers that have been operational for a number of years are able to negotiate better debt terms and conditions with their respective financiers. The savings negotiated result in reduced tariffs and reinvestment opportunities.

64. So far, 22 Refi applications have been approved to date resulting in R 4.7 billion savings over the remaining term.

65. On how the Refi process works, the process is outlined in table 3 below;

Table 3: Refinancing Initiative (Refi) Process

	Timing
The seller submits a refinancing notice to the Department aligned to the requirements of the refinancing protocol and the seller submits required information to NERSA to start their process for approval of the tariff reduction	**T+ 0 BD**
Initial assessment done and responses received to further information requested by the Department	**T+ 15 BD**
Assessment completed and recommendation to DMRE for approval and to NERSA confirming the tariff reduction	**T+ 25 BD**
Approval of refinancing and amendment to IA by DMRE Bid Adjudication Committee(BAC) and sign off by DG	**T+ 48 BD**
NERSA approvals for amendment to licence	**T+ 55 BD**
Financial close of refinancing	**T+ 65 BD**
Eskom sign off for the amendment to the PPA	**T+ 75 BD**

T=Refinancing Request Submission date; BD=Business Day

3.2.2 Overview of the ESKOM Presentation

66. The delegation was taken through an overview of South Africa's electricity industry, beginning with the Department of Mineral Resources & Energy (Ministry in the cabinet) (DMRE), responsible for the Integrated Resource Plan (IRP), feasibility studies, capacity procurement, and buyer designation.

67. Eskom, a state-owned enterprise, was highlighted to the delegation as the core player in the industry. Eskom's responsibilities encompass electricity generation, transmission, distribution, and trading. It is in the process of creating a ring-fenced Single Buyer Office in preparation for the Independent System and Market Operator (ISMO) Bill. Eskom reports to the Department of Public Enterprise.

68. The National Energy Regulator of South Africa (NERSA) was introduced as the industry regulator, overseeing licenses for generation, transmission, distribution, and trading. NERSA plays a pivotal role in approving Power Purchase Agreement (PPA) amendments and regulating electricity tariffs.

69. The policy and enabling environment history of South Africa's energy sector unfolds as a significant narrative, shaped by pivotal moments. In 1998, the introduction of the "White Paper on Energy" proposed a visionary path for the power sector by advocating for its liberalization. In 2001, a Cabinet decision shifted the energy sector structure by recommending a 70/30 split between Eskom Generation and Independent Power Producers, introducing private sector participation.

70. In 2004, South Africa's "White Paper on Renewables" set ambitious targets for renewable energy, aligning with global efforts to reduce carbon footprint and embrace cleaner alternatives. The South African National Energy Regulator (NERSA) introduced the Renewable Energy Feed-In Tariff (REFIT) in December 2008, significantly shaping the energy sector's future. NERSA's 2009 guidelines on REFIT established a comprehensive framework for integrating renewable energy sources, promoting clarity, consistency, and predictability, thereby boosting investment and development in this growing sector.

71. In July 2009, South Africa's NERSA consultation paper 6 technologies emphasized the country's commitment to diversifying its energy mix and embracing sustainable energy sources. In August 2009, the government gazette the "New Generation Regulations," establishing a legal framework for the transformation of the energy sector. In October 2009, NERSA published the REFIT rates, which provided clear and specific incentives for renewable energy generation.

72. On the policy path and enabling environment history, the delegation was informed that the South African National Government is committed to fostering a green economy, promoting sustainability and local job creation. Prior to 2016, 3,725 MW of renewable energy was allocated to Independent Power Producers (IPPs), with an additional 3,200 MW determined between 2017 and 2020.

73. On enquiring the reason for the frequent load shedding in South Africa, the delegation was informed that it is attributed to a myriad of factors which include; Shortage of generation; increased unplanned unavailability; limited fuel availability at peaking stations; the need to conserve and replenish depleted emergency resources; and poor coal and compromised emissions performance.

The Kenyan Delegation being briefed by Mr. Paul Davel-Chief Engineer Eskom System operations

3.2.2.1 IPP procurement-IRP determinants

74. The delegation was informed that by 2030, 17,800 MW of renewable energy generation will be earmarked. Additionally, 12,235 MW has been allocated to IPPs, demonstrating the ambition to expand the energy sector.

75. The determination process reached a milestone with the announcement of Preferred Bidders in Bid Window 1 in November 2011 and Bid Window 2.On bid window 1,Eskom signed 28 PPAs(1416 MW) in November 2012 and on bid window 2.Eskom signed 19 PPAs(1044MW) in May 2013,with the determinations and bids over the years indicated in table 4;

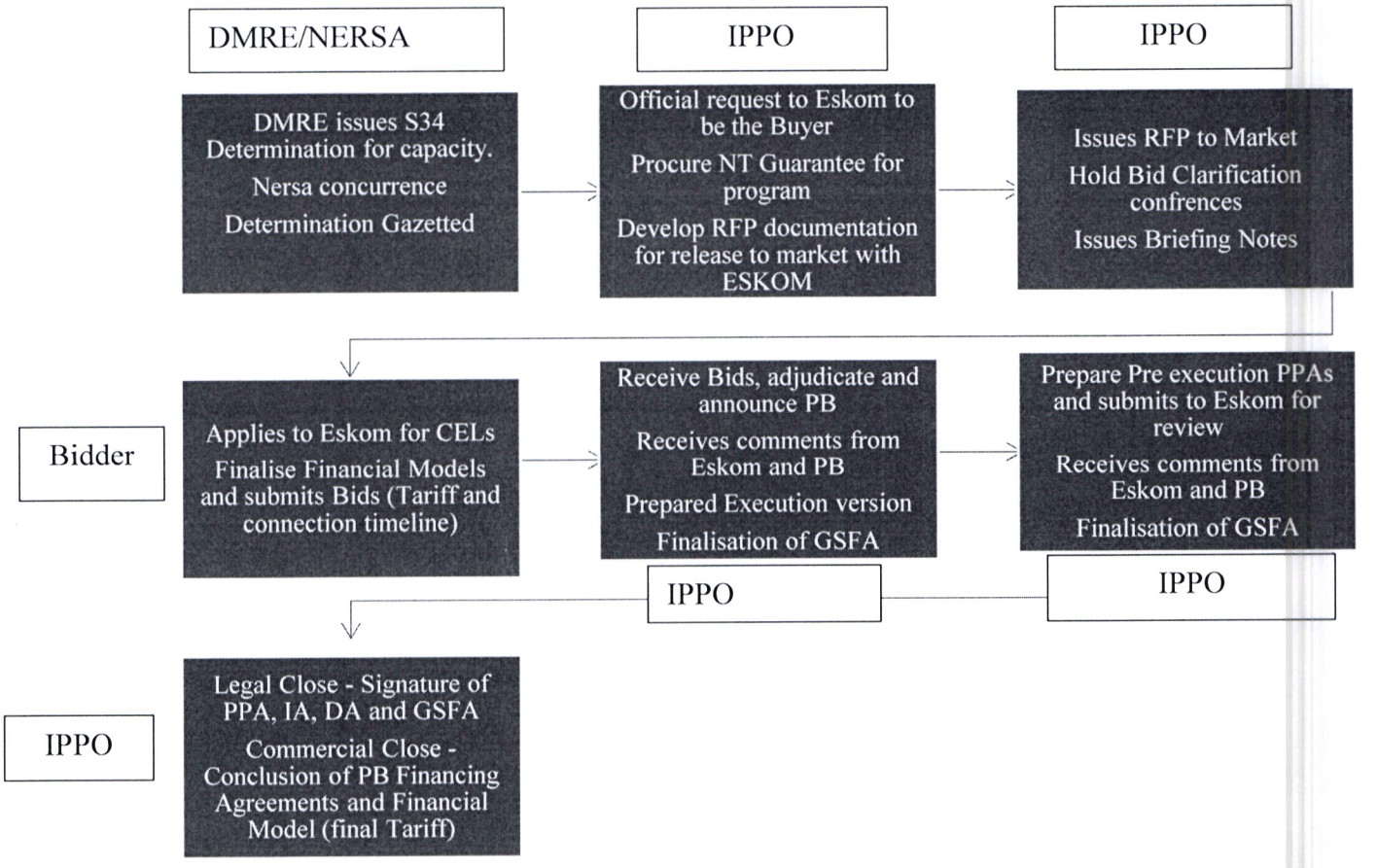
Table 4:IPP procurement-IRP determinants

	IRP 2010 determinations 1st determination 2011 (3725 MW) 2nd determination 2012 (+ 3200 MW) 3rd determination 2015 (+ 6300 MW)	IRP 2019 determinations 1st determination 2020 (2000 MW short term risk mitigation capacity) 2nd Determination 2020 (6800 MW Wind and PV, 513 MW Storage, 3000 MW Gas) 3rd Determination 2023 (2000 MW Load Shedding Reduction, 800MW Emergency Generation) 4th Determination Apr 2023 (3940 MW Solar PV, 9600 MW Wind, 1231MW Storage)		
	Per Determination / RFP (MW)	Eskom Board Approval (MW)	Contracted (MW) (PPA signed)	Operational (MW) (achieved COD)
TOTAL	**25876**	**12906**	**9420**	**7186**
Peakers (Avon / Dedisa)	1005	1005	1005	1005
BW1	1425	1425	1425	1415
BW2&6	1040	1040	1040	1033
BW3	1457	1452	1433	1428
BW3.5	200	200	200	100
BW4, 4.5	2205	2205	2205	2205
BW 5	2600	2583	1759**	TBA
RMIPPP	2000	1996	150****	0
BW 6	4200***	1000***	0	0
BW 7	5000	0	0	0
Storage	513	0	0	0
Gas	3000**	0	0	0
Storage (extended)	1231	0	0	0

*Notes: * RFP in development, ** 784 MW of wind and 975 MW of Solar legal closed, 824 Mw will likely be withdrawn from programme ***allocated MWs increased RFP issued to mkt, only 1000 MW of preferred bidders allocated due to grid constraints **** 150MW have already achieved financial closed – remainder projects anticipated to achieve legal close before end June 2023)*

3.2.2.2 DMRE IPP PROCUREMENT PROCESS

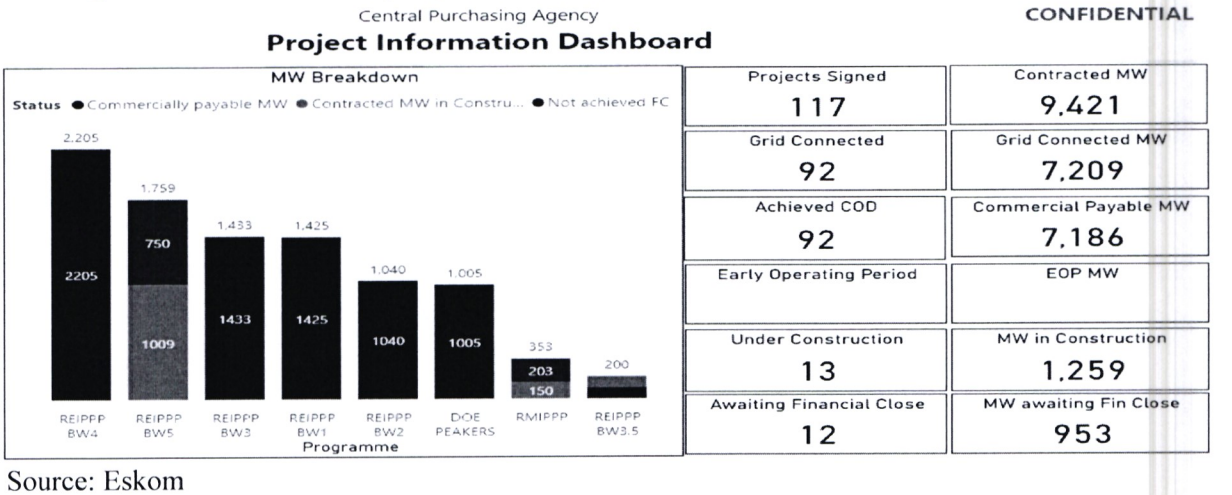
76. On the IPP procurement process, the ESKOM team took the committee through the process of onboarding the IPPs which is as outlined in Figure 6;



3.2.2.3 Status of IPP projects with signed PPAs

77. On the status of the IPP projects with signed PPAs,the delegation was informed that the status of the various projects are as outlined in figure 7;

Figure 7: Status of IPP projects with signed PPAs

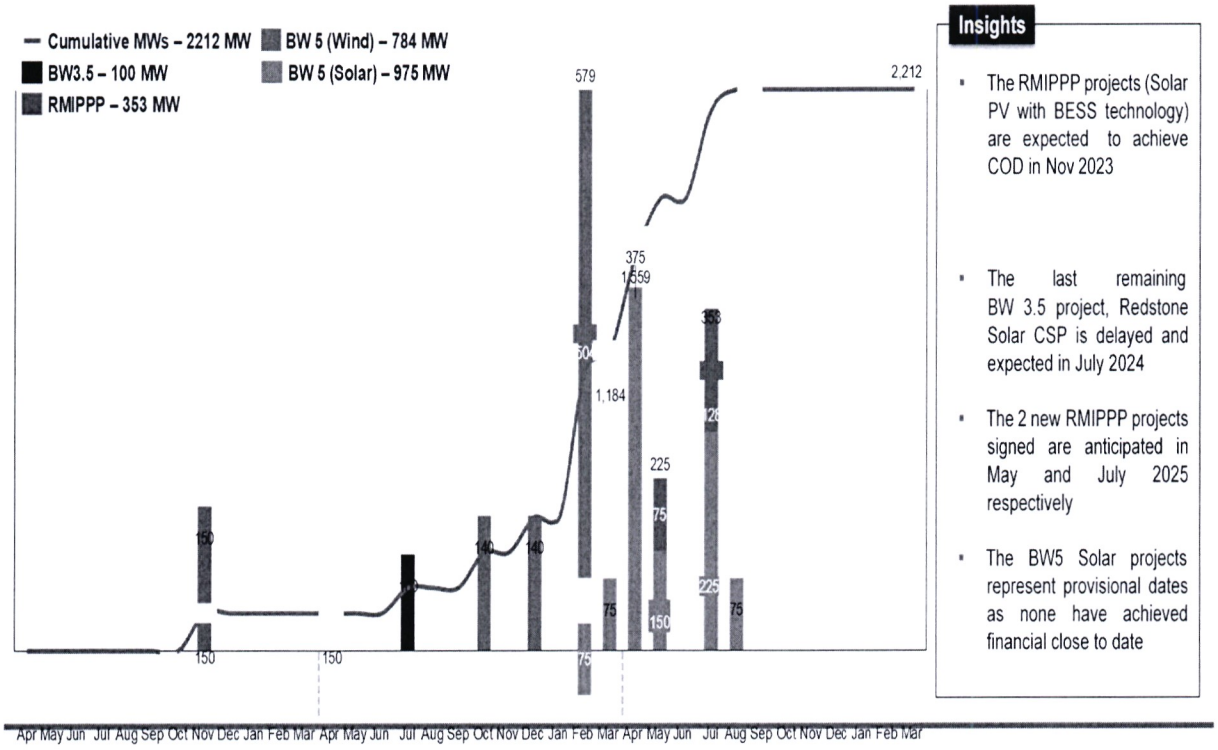


Source: Eskom

3.2.2.4 Project: Expected Capacity

78. The delegation was also taken through the expected capacity over the next two years which consist of 100MW in Bid Window (BW) 3.5,353 in the RMIPPP,784MW in Bid Window(BW) 5 from wind and 975MW also in Bid Window(BW) 5 from Solar as outlined in figure 8 below;

Figure 8:Project Expected Capacity over the years from FY 2023/24 to FY 2025/26



3.3 DAY 3: Friday 6th October 2023

3.3.1 Courtesy call at the High Commission of Kenya in South Africa

79. While in South Africa, the delegation paid a courtesy call to the Kenyan embassy in South Africa whereby they were warmly welcomed by Amb. Jackline Moraa Kenani, Kenya's Deputy High Commissioner to South Africa. Also present were the following officers;

(i)	Ms. Nancy Ngumba	-	Minister Counsellor
(ii)	Dr.Evans Nyaga	-	Foreign Relations Officer
(iii)	Mr. Rulofs Makokha	-	First Counsellor
(iv)	Mr. Erupe Samal	-	Second Secretary
(v)	Ms. Alice Mwende	-	Third Secretary

80. The discussion centered on areas of collaboration on renewable Energy especially solar and wind, improving the Trade balance between Kenya and South Africa, which is currently heavily in favour of South Africa ,white collar job opportunities available to the Kenyan Labour force in South Africa and Education whereby the delegation was informed that Kenyan citizens account for a big proportion of the academia professionals in South African Universities.

81. The Head of the Kenyan delegation, Hon(Eng) Vincent Musyoka concluded the discussion by underscoring the importance of strong collaboration, particularly in establishing a robust relationship between the diaspora citizens and the High Commissioner's office and thanking the Commission for all the support granted to the delegation during the successful benchmarking Visit, then the delegation and High Commission staff proceeded for a photo session outside the High Commission.

The Kenyan Delegation led by Hon. (Eng.) Vincent Musyoka Musau accompanied by Amb. Jackline Moraa in front of the High commission of republic of Kenya in Pretoria, together with other staff of the Mission.

3.4 DAY 4: Saturday 7th October 2023

3.4.1 Field visit to Nelson Mandela House in Soweto

82. The delegation visited Nelson Mandela House in Soweto, a historical site significant in South Africa's struggle for freedom and human rights, symbolizing the resilience and determination of the people. The house showcases the life and legacy of Nelson Mandela, an iconic figure in the fight against apartheid and principles of reconciliation and unity. The delegation explored the rooms where Mandela and his family lived, where he was under

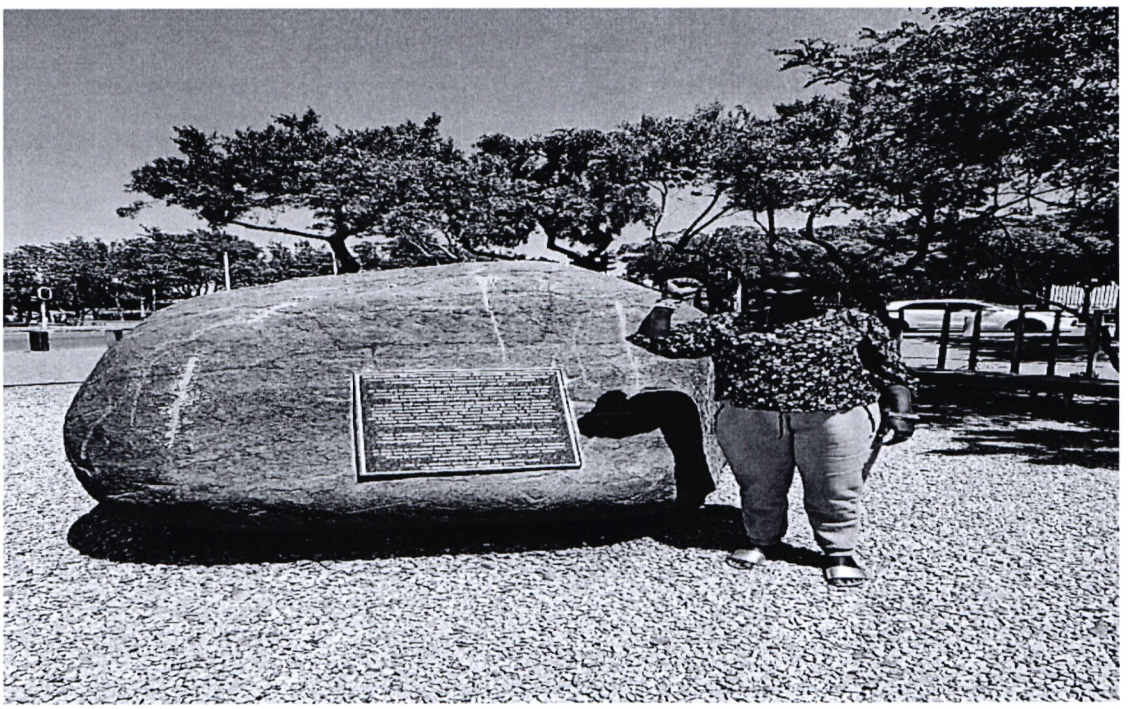
house arrest for years. The experience was both educational and emotional, highlighting the sacrifices and unyielding spirit of Mandela and his supporters.

83. The knowledgeable guides shared stories and insights about his legacy. The delegation also visited the room where Mandela's legal and personal documents are preserved, providing insight into his life as a leader and symbol of hope. Nelson Mandela House is a historical site that preserves the collective memory of South Africa's struggles for justice and equality, serving as a beacon of inspiration.

Hon. (Eng.) Vincent Musyoka, leader of the Delegation at the Nelson Mandela House

3.4.2 Field visit to Hector Pieterson Museum

84. The delegation visited the Hector Pieterson Museum in Soweto, a significant site in South Africa's history, showcasing the bravery and determination of the people in their quest for justice and equality. The museum, which bears the name of student activist Hector Pieterson, honors the 1976 anti-Apartheid Soweto Uprising by displaying images, personal accounts, films, and newspapers, including the famous image taken by Sam Nzima.



Hon.Cecilia Asinyen at the Hector Pieterson Museum

PART IV

4. COMMITTEE OBSERVATIONS

85. The Committee made the following observations and Findings, THAT:-

i. The establishment of the IPP office in 2010 and subsequent introduction of the Independent Power Producers Procurement Programme has led to a reduction in tariffs through competitive procurement of new electricity generation capacity provided by independent powers. The programme's dual consideration of economic development objectives has also led to the creation of a significant number of jobs, as well as the promotion of foreign direct investment and private sector investment into the South African energy sector.

ii. The Regulatory sub-committees of the National Energy Regulator of South Africa are open to the public except where confidential matters are to be considered.

iii. There is a huge variance between the ESKOM's installed capacity of 48,000 MW against the available capacity of 27,000MW, which has to a great extent led to the perennial load shedding being experienced in South Africa.

iv. Owing to the high variability in flow and the lack of suitable sites for hydroelectricity in South Africa, pumped storage schemes are used as an alternative to conventional hydroelectric power stations to provide the power needed during peak periods, which entails the retaining and reusing of the water in the system instead of discharging it.

v. South Africa is the only nuclear operator in Africa, and currently has two nuclear reactors generating about 6% of its electricity and is among the cheapest sources of power in their energy mix, at a cost of about 1 USD cents per kilowatt-hour (kWh).

vi. The Refinancing Initiative(Refi) launched in 2019 aimed at reducing Bid window 1-4 tariffs to stimulate economic growth by passing any reduction in tariffs back to the consumer. The economy has resulted in 22 Refi applications being approved to date and has contributed to cost savings of R 4.7 billion over the remaining terms of the PPA.

PART V

5. COMMITTEE RECOMMENDATIONS

86. The Committee made the following recommendations, THAT:-

i. The Cabinet Secretary for the Ministry of Energy and Petroleum in conjunction with the Cabinet Secretary for the National Treasury to initiate the formation of an Independent Power Producers (IPP) Office which incorporates membership from the National Treasury, Attorney General, Ministry of Energy and Petroleum, KPLC and EPRA, to manage, implement and monitor IPPs, within thirty-six (36) months upon adoption of the report.

ii. The Cabinet Secretary for the Ministry of Energy and Petroleum and the Energy & Petroleum Regulatory Authority to implement upcoming energy projects under the Energy Auctions Policy in order to ensure that new electricity capacity is procured competitively and in line with the Least Cost Power Development Plan within twelve (12) months of adoption of the report.

iii. The Energy and Petroleum Regulatory Authority (EPRA) to open to the public the proceedings of their regulatory sub-committees meetings except on confidential matters in order to promote transparency and accountability within twelve (12) months upon adoption of the report.

iv. The Kenya Electricity Generating Company PLC (KenGen) to incorporate pump storage schemes in their hydroelectric generation plants to necessitate pumping the water back after use which will help combat the issue of poor hydrology arising from drought and famine as well as enable the country benefit from their quick re-action to changes in electricity demand which play a major part in maintaining the stability of the national grid within five (5) years of adoption of the report.

v. The Cabinet Secretary for the Ministry of Energy and Petroleum in conjunction with the Cabinet Secretary for the National Treasury to explore possible ways of introducing a refinancing initiative with Trade and Development Bank (TDB) for the Independent power producers who have been in operation for more than fifteen (15) years to be able to negotiate better debt terms and conditions with their respective financiers in order to stimulate economic growth by passing any reduction in tariffs back to the consumer and the economy, within four (4) years upon adoption of the report.

vi. The Cabinet Secretary for the Ministry of Energy and Petroleum to ensure that Nuclear Power and Energy Agency (NUPEA) fast-tracks the development of nuclear energy in order to enhance the production of affordable and reliable electricity while helping reduce reliance on thermal plants.

vii. The Cabinet Secretary for the Ministry of Energy and Petroleum to ensure that some of the conditions that led to the current load shedding in South Africa which include shortage of generation; increased unplanned unavailability; limited fuel availability at peaking stations; and the need to conserve and replenish depleted emergency resources are averted through frequent maintenance of existing power plants, increased investment in the energy sector through favorable policies such as the auctions system to spur development of new generation and transmission facilities in order to match demand and supply, as well as ensuring the reforms being implemented in KPLC are successful in order to improve its investment grade and allow the utility company to access funds at favorable interest rates in order to improve and upgrade their network.

REPUBLIC OF KENYA

THE NATIONAL ASSEMBLY

THIRTEENTH PARLIAMENT

DEPARTMENTAL COMMITTEE ON ENERGY

MEMBERS' ADOPTION LIST

Agenda: Adoption of foreign visit report to South Africa

DATE: 19/10/23 **VENUE:** Continental Hse 2nd floor **START TIME:** 11.00am **END TIME:** 12.30pm

	NAMES	SIGNATURE
1.	Hon. (Eng.) Vincent Musyoka, MP- **Chairperson**	
2.	Hon. Lemanken Aramat, MP- **Vice Chairperson**	
3.	Hon. Charles Gimose, M.P	
4.	Hon. Julius Musili Mawathe, MP	
5.	Hon. Richard Ken Chonga, MP	
6.	Hon. Walter Owino, M.P MP	
7.	Hon. Elisha Odhiambo, MP	
8.	Hon. Tom Mboya Odege, MP	
9.	Hon. Simon King'ara, MP	
10.	Hon. George Omera Aladwa, MP	
11.	Hon. Mwafrika Augustine Kamande, MP	
12.	Hon. Victor Koech Kipngetich, MP	
13.	Hon. Geoffrey Ekesa Mulanya, MP	
14.	Hon. Cecilia Asinyen Ngitit, MP	
15.	Hon. Barongo Nolfason Obadiah, MP	

Forwarded by:

Signed: ..... Date 19/10/2023

Mr.Adan Gindicha

Principal Clerk Assistant II – Lead Committee Clerk

Approved by:

Signed..... Date 22/11/23

Mr. Peter K. Chemweno,

Director

Directorate of Departmental Committees

MINUTES OF THE 85th SITTING OF THE DEPARTMENTALCOMMITTEE ON ENERGY HELD ON THURSDAY 19th OCTOBER, 2023 IN CONTINENTAL HOUSE 2nd FLOOR BOARDROOM AT 12.00PM

PRESENT

1. The Hon. (Eng.) Vincent Musyoka Musau, MP –**Chairperson**
2. The Hon. Lemanken Aramat, MP-**Vice Chairperson**
3. The Hon. Cecilia Asinyen Ngitit, MP
4. The Hon. Victor Koech Kipngetich, MP
5. The Hon. Elisha Odhiambo, MP
6. The Hon. Walter Owino, MP - Virtual
7. The Hon. Simon King'ara, MP
8. The Hon. Geoffrey Ekesa Mulanya, MP
9. The Hon. Barongo Nolfason Obadiah, MP

APOLOGIES;

1. The Hon. Richard Ken Chonga, MP
2. The Hon. Tom Mboya Odege, MP
3. The Hon. Julius Musili Mawathe, MP
4. The Hon. George Aladwa Omwera, MP
5. The Hon. Mwafrika Augustine Kamande, MP
6. The Hon. Charles Gimose, MP

COMMITTEE SECRETARIAT

1.	Mr. Adan Gindicha	-	Principal Clerk Assistant II
2.	Ms. Mary Lemerelle	-	Clerk Assistant II
3.	Mr. Salim Athuman	-	Clerk Assistant III
4.	Josphat Bundotich	-	Principal Sergeant at Arms II
5.	Mr. Brian Njeru	-	Fiscal Analyst III
6.	Mr. Robert Langat	-	Research Officer III
7.	Ms.Mercy Mayende	-	Media Relation Officer
8.	Ms. Rehema Chepkurui	-	Audio-Recording Officer

AGENDA

1. Prayers
2. Preliminaries/Introductions
3. **Adoption of the report on Budget Implementation Oversight for 2022/2023**
4. **Adoption of the report on benchmarking visit to Ghana on PPA management**
5. **Adoption of the report on benchmarking visit to South Africa on PPA management**
6. **Adoption of the report of the committee participation in the 4th Petroleum Conference in Kampala, Uganda.**
7. Adjournment/ Date of the next meeting

MIN. NO. NA/ENERGY/2023/74 : PRELIMINARIES

The meeting was called to order at 11.30am and commenced with prayers by the Hon Simon King'ara. Self-Introductions were made. The Agenda of the meeting was adopted as adoption of the report on Budget Implementation 2022/23, Adoption of the three reports on foreign visits to Ghana, South Africa and Uganda having being proposed by the Hon.Lemanken Aramat and seconded by Hon Geoffrey Mulanya.

MIN. NO. NA/ENERGY/2023/75: ADOPTION OF THE REPORT ON BUDGET IMPLEMENTATION OVERSIGHT 2022/2023

The following observations were from the report which was presented by the Fiscal Analyst;

i. There were several projects undertaken by KETRACO which include Nanyuki–Isiolo-Meru, Sondu-Homabay-Ndhiwa-Awendo, Power Transmission System Improvement Project, Kamburu Embu Thika Transmission Line, and Naivasha Industrial Park were affected by budget cuts which reduced their project budgets to zero, however they still received budget disbursements.

ii. There were several projects undertaken by the State Department For Energy which are bundled together, and they include the last mile connectivity project, Street lighting, Electrification of Public Facilities and Installation of transformers in constituencies project

iii. There was an under-performance of AIA witnessed in the 5% Electricity Levy-REP, the sale of steam, KOSF storage charges and Sale of Wood Fuel Burners in the recurrent expenditure category while in the development expenditure category, underperformance was witnessed in the 5% electricity levy.

iv. The State Department for Energy had a budgeted development expenditure from foreign sources i.e., grants and loans of Kshs.22.2 billion, however the actual expenditure arising from the two sources amounted to Kshs.12.5 billion resulting to an underperformance of Kshs.9.7 billion.

v. As at 30th June 2023, the pending Bills among the SAGAs under the State Dept. for Energy were incurred by KETRACO (Kshs.22.16 billion) owing from wayleave claims and compensations, NUPEA(Kshs.82.9 million) owing from conferences and project funding constraints and GDC (Kshs.1.22 billion) as a result of budgetary challenges, under litigation, dispute and cash flow challenges. KPLC has pending bills amounting to Kshs.82.5 billion which comprises of Kshs.75.1 billion owed to Energy Suppliers who include KenGen, KETRACO, REREC and IPPs, Kshs.876 million owed as statutory payments such as royalty, and dividends and Kshs.6.5 billion owed to General and other suppliers. On the other hand, the National govt owed KPLC Kshs.19.6 billion of which Kshs.19.2 billion emanates from the RES projects maintenance, Kshs.121 million owing to the tariff compensation subsidy and Kshs.248 million for REREC primary schools maintenance.

Kenya Pipeline is losing throughput products of 0.04% against a threshold of 0.25% set by EPRA through theft. Considering that Kenya Pipeline transports about 8 billion liters annually, the 0.04% in losses translates to around 3.2 million liters lost and approximately Kshs.600 million in revenue lost.

An analysis of the pending bill owed to the Oil marketing companies as at the 15 December 2022 - 14 January 2023 pricing cycle indicates that the pending bill amounted to Kshs.53.3 billion, while a further analysis indicates that the pending bill as the 15th May 2023- 14th June 2023 pricing cycle indicates that the pending bill was at Kshs.45.7 Billion, a difference of only Kshs.7.6 billion, despite the programme having an allocation of Kshs.63.1 Billion in FY 2022-23,which was an increase of Kshs.42.7 billion from Kshs.20.4 billion in the initial estimates. It is also critical to note that the funding was approved by the National Treasury in line with article 223 of the constitution, and Kshs.22.59 billion had already been disbursed, meaning subject to the regularization of the expenditure in the FY 2022/23 Supplementary Estimates which was done by parliament, the amount that was remaining to be disbursed was Kshs.20.15 billion.

vi.

Committee Recommendations

The Cabinet Secretary for the Ministry of Energy and Petroleum in conjunction with the Cabinet Secretary for the National Treasury to undertake the unbundling of the projects in the subsequent budget i.e., FY 2024-25 annual budgets, with the breakdown containing the list of projects to be funded per constituency against their allocation in order to promote transparency in allocation of projects and their implementation by 28th February 2024

The Cabinet Secretary for the Ministry of Energy and Petroleum to provide to the Committee a comprehensive status report regarding the entire cost of the LPG Bulk storage and Handling Facility in Mombasa, its expected completion date and a breakdown of the utilization of the Kshs.192 million spent so far on the project by 30th November 2023

The Kenya pipeline company to leverage on technology e.g., use of tactic drones to enhance surveillance on their pipeline network, reduce costs accruing from acquisition of SCADA (supervisory control and data acquisition) as well as help reduce incidences of product theft by 31st March 2024.

MIN. NO. NA/ENERGY/2023/76: ADOPTION OF THE REPORT ON BENCHMARKING VISIT TO GHANA ON PPA MANAGEMENT.

The following observations were made from the report;

i. Ghana has been able to renegotiate some PPAs, restructured others and terminated some;
ii. Ghana has 3 distribution companies; ECG, NEDco and Enclave which is a privately-owned entity
iii. In some cases, the take-and-pay model changed to take-and-pay, which relieved the offtaker from the obligation to pay for unused.
iv. Cost of electricity in Kenya is higher than the global average of $ 0.136 per kWh for households
v. Ghana has been able to renegotiate some PPAs, restructured others and terminated some;
vi. In some cases, the take-and-pay model changed to take-and-pay, which relieved the offtaker from the obligation to pay for unused
vii. Ghana's commercial losses account for about 32% while technical losses stands at 9% similar to Kenya's 10%;

Recommendations from the report;

i. The MoEP to commence the process to set the stage for the renegotiation of PPAs, including the pricing model with a view of upscaling the Take-and-Pay model as opposed to the Take-or-Pay model. This will go a long way to address escalating cost of electricity. All retired Power Plants to revert to Government of Kenya (GoK) upon their expiry of term limit. Kenya Power in collaboration the Office of the Auditor General to conduct assessment on the suitability and cost-effectiveness of the said plants;

ii. The GoK as part of negotiations to audit all the IPPs in terms of their initial investments in those plants and the capital recoveries that have been accrued so far. This should provide the basis for renegotiation of PPAs;

iii. There is need to fast track the implementation of **High Grand Falls Hydro Electric Project** with the capacity similar to the Akosombo hydro plant in Ghana **(1020MW)** so to give the Kenya Grid the much-needed Inertia and Regulating Reserves to improve grid stability, resilience and reliability with the high penetration of Variable Renewable Energy sources of wind and solar;

iv. MoEP to expedite plans to complete the 132kV 81km double circuit Narok-Bomet, 132kV Malindi-Weru, 132kV Sondu-Homabay-Ndiwa and 132kV Kabarnet-Rumuruti transmission lines. This will establish a more reliable power supply by providing alternative route to allow flow of geothermal power to the respective regions. Thus, improving supply quality and reliability to the said regions of the country. This is justifiable in that it will stabilize power supply, improve on transmission line security hence cushioning against losses occasioned by power failures and blackouts

v. There is need to implement an **Automatic Generation Control** for the Kenya Grid to improve response to system fluctuations and improvement system stability;

vi. There is need to enhance the **Black Start Capability** in the Kenyan Grid System to ensure fast system recovery and restoration in the event of a national power outage;

vii. The benchmarking visit provided an avenue for a lot of lessons learnt and consolidation of best practices within the Energy sector in Kenya. Much of what is required now is to set the pace for the implementation of these recommendations

MIN. NO. NA/ENERGY/2023/77: ADOPTION OF THE REPORT ON BENCHMARKING VISIT TO SOUTH AFRICA ON PPA MANAGEMENT.

The Committee made the following observations and Findings, THAT

i. The establishment of the IPP office in 2010 through a tripartite memorandum of understanding between the Development Bank of South Africa(DBSA),National Treasury(NT) and Department of Mineral Resources and Energy(DMRE) and subsequent introduction of the Independent Power Producers Procurement Programme has led to a reduction in tariffs through competitive procurement of new electricity generation capacity provided by independent power producers (IPPs)with Bid window 1 prices amounting to 3.94 Rand Cents and this has subsequently reduced to 0.54 Rand Cents for solar and wind plants in Bid Window 6.The programme's dual consideration of economic development objectives has also led to the creation of a significant number

of jobs, as well as the promotion of foreign direct investment and private sector investment into the South African energy sector.

ii. The Regulatory sub-committees of the National Energy Regulator of South Africa are open to the public except where confidential matters are to be considered.

iii. There is a huge variance between the ESKOM's installed capacity of 48,000 MW against the available capacity of 27,000MW,which has to a great extent led to the perennial load shedding being experienced in South Africa.

iv. Owing to the high variability in flow and the lack of suitable sites for hydroelectricity in South Africa, pumped storage schemes are used as an alternative to conventional hydroelectric power stations to provide the power needed during peak periods, which entails the retaining and reusing of the water in the system Instead of discharging it.

v. South Africa is the only nuclear operator in Africa, and currently has two nuclear reactors generating about 6% of its electricity and is among the cheapest sources of power in their energy mix, at a cost of about 1 USD cents per kilowatt-hour(kWh).

The Committee made the following recommendations, THAT;

i. The Cabinet Secretary for the Ministry of Energy and Petroleum in conjunction with the Cabinet Secretary for the National Treasury to initiate the formation of an Independent Power Producers(IPP) Office which incorporates membership from the National Treasury, Attorney General, Ministry of Energy and Petroleum, KPLC and EPRA, to manage, implement and monitor IPPs, within thirty-six (36) months upon adoption of the report.

ii. The Cabinet Secretary for the Ministry of Energy and Petroleum and the Energy & Petroleum Regulatory Authority to implement upcoming energy projects under the Energy Auctions Policy in order to ensure that new electricity capacity is procured competitively and in line with the Least Cost Power Development Plan within twelve (12) months of adoption of the report.

iii. The Energy and Petroleum Regulatory Authority (EPRA) to open to the public the proceedings of their regulatory sub-committees meetings except on confidential matters in order to promote transparency and accountability within twelve (12) months upon adoption of the report.

iv. The Kenya Electricity Generating Company PLC (KenGen) to incorporate pump storage schemes in their hydroelectric generation plants to necessitate pumping the water back after use which will help combat the issue of poor hydrology arising from drought and famine as well as enable the country benefit from their quick re-action to changes in electricity demand which play a major part in maintaining the stability of the national grid within sixty (60) months of adoption of the report.

MIN. NO. NA/ENERGY/2023/78: Adoption of the report of the committee participation in the 4th Petroleum Conference in Kampala, Uganda.

The Committee made the following observations;

The conference coincides with the East Africa Community's commitment to implement its EAC Vision 2050 plan, which seeks to ensure a sustainable, adequate, affordable, competitive, secure and reliable supply of energy to meet regional needs at the least cost.

2. Africa must be helped to secure the economic benefits from oil and gas development which can help raise millions of people out of poverty.

3.The dilemma facing many African countries is how to address the continent's significant energy access gap, as well as the need to reduce the negative environmental impacts of traditional energy sources

4.As the world moves towards renewable energy sources, the role of Oil and Gas in the energy transition is becoming increasingly under scrutiny.

5.Premised on the need for the world to swift from primary use of fossil fuel to renewable sources of energy, the energy transition is faced with the challenges of energy poverty and economic transformation of countries endowed with oil and gas

6.National Oil Companies can use their functions to achieve this balance and promote socio-economic transformation in petroleum-rich countries

The committee learnt the following key lessons;

East Africa has the capacity of ending energy poverty among its population while contributing to global energy security and a just and inclusive energy transition, on the back of optimal development and exploitation of vast energy resources including oil, gas, hydrogen and renewables

2. Energy consumption pattern in Africa is driven by mainly three sectors which demand up to 80% of the energy supply: the transport, residential and industrial sectors of the economy.

3. The private sector plays a pivotal role in the development of the oil and gas industry, particularly in the provision of much-needed goods and services for example, the Bank of Uganda has guided on how revenues from oil and gas activities are managed in line with Petroleum Revenue Investment Policies (PRIP)

4.The Government-to-Government agreements for oil importation on credit is one of the ways the East African Regional States are undertaking to help in petroleum logistics and supplies

MIN. NO. NA/ENERGY/2023/79: ANY OTHER BUSINESS

There was no any other business.

MIN. NO. NA/ENERGY/2023/80: ADJOURNMENT

There being no other business, the meeting was adjourned at half past one o'clock.

SIGNED..... **DATE** 22/11/2023

(CHAIRPERSON)