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Guidance and preparation of Draft ToR for AfSEM Working Groups.

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Table of contents

PART I INTRODUCTION	7
1 Context	8
1.1 THE CEPA CONTEXT	8
1.2 THE AfSEM CONTEXT.....	8
1.3 THE AfSEM GOVERNANCE STRUCTURE	9
1.4 THE AfSEM WORKING GROUPS	9
1.5 OBJECTIVES	10
2 Scope of Work	11
2.1 BACKGROUND.....	11
2.2 METHODOLOGY.....	11
3 Deliverables	13
PART II: GUIDANCE ON THE TERMS OF REFERENCE OF AfSEM WORKING GROUPS	14
1 Introduction	15
2 Drafting Principles	16
3 High Level Overview of ToR Content	17
4 Detailed Guidance on the WG ToR Sections	18
4.1 BACKGROUND.....	18
4.2 MANDATE.....	18
4.3 RESPONSIBILITIES.....	19
4.4 SCOPE OF WORK	20
4.5 GOVERNANCE STRUCTURE	21
4.6 WORKING METHODS.....	21
4.7 COMPOSITION.....	21
4.8 DELIVERABLES / OUTPUTS	22
4.9 RESOURCES AND SUPPORT	22
4.10 DURATION AND REVIEW	23
PART III WORKING GROUP TERMS OF REFERENCE	24
1 Working Group 1 Electricity Infrastructure	25
2 Working Group 2 Regulation and Market Operation	35
3 Working Group 3 Investments Coordination	44
4 Working Group 4 Renewable Energy and Energy Transition	54
5 Working Group 5 Energy Efficiency	66

List of Tables

Table 1 CEPA AfSEM specific objective.....	8
Table 2 Working Groups short presentation	10

List of Figures

Figure 1 The African Single Electricity Market simplified	9
Figure 2 The AfSEM Governance structure.....	9
Figure 3 AfSEM Working Groups ToRs Implementation Methodology.....	12

ACRONYMS

AFC	Africa Finance Corporation
AfCFTA	African Continental Free Trade Area
AFCM	AfSEM Financing Coordination Mechanism
AFD	Agence Française de Développement
AfDB	African Development Bank
AfEES	African Energy Efficiency Strategy
AFREC	African Energy Commission
AfrExim	African Export-Import Bank
AFSEC	African Electrotechnical Standardization Commission
AfSEM	African Single Electricity Market
AFSIA	Africa Solar Industry Association
AFUR	African Forum for Utility Regulators
AGHA	African Green Hydrogen Alliance
AHP	African Hydrogen Partnership
AIB	African Investment Bank
AMDA	Africa Minigrid Developers Association
APUA	Association of Power Utilities of Africa
AREI	Africa Renewable Energy Initiative
AREMI	Africa Renewable Energy Manufacturing Initiative
ASR	African School of Regulation
AU	Africa Union
AUC	African Union Commission
AUDA-NEPAD	African Union Development Agency – New Partnership for Africa’s Development
AWEA	Africa Wind Energy Association

BDEAC	Central African States Development Bank
BMICE	Maghreb Investment and Foreign Trade Bank
BOAD	West African Development Bank
CAPP	Central African power Pool
CEN-SAD	Community of Sahel-Saharan States
CEPA	Continental Energy Programme in Africa
CEREEAC	Centre for Renewable Energy and Energy Efficiency for Central Africa
CMP	Continental Master Plan
COMELEC	Comité Maghrébin de l'Électricité (Maghreb Electricity Committee)
COMESA	Common Market for Eastern and Southern Africa
CORREAC	Commission Régionale de Régulation de l'Électricité de l'Afrique Centrale
CREEE	Centre for Renewable Energy and Energy Efficiency
DBSA	Development Bank of South Africa
EAC	East African Community
EACREEE	East Africa Centre of Excellence for Renewable Energy and Energy Efficiency
EADB	East African Development Bank
EAPP	Eastern Africa Power Pool
ECOWAS	Economic Community of West African States
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency
EE	Energy Efficiency
EIB	European Investment Bank
EREA	Energy Regulators Association of East Africa
ERERA	ECOWAS Regional Electricity Regulatory Authority
EU	European Union
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HLOC	High-Level Technical Oversight Committee
IEA	International Energy Agency
IED	Infrastructure and Energy Department
IGAD	Intergovernmental Authority on Development in Eastern Africa
IPP	Independent Power Producer
IPT	Independent Power Transmission
IRB	Independent Regulatory Board
IRENA	International Renewable Energy Agency
KfW	Kreditanstalt für Wiederaufbau
M&E	Monitoring and Evaluation

MEDREG	Mediterranean Energy Regulators Association
RAERESA	Regional Association of Energy Regulators for Eastern and Southern Africa
RCREEE	Regional Centre for Renewable Energy and Energy Efficiency
RE	Renewable energy
REC	Regional Economic Community
RERA	Regional Energy Regulators Association
SACREEE	SADC Centre for Renewable Energy and Energy Efficiency
SAPP	Southern Africa Power Pool
SARERA	SADC Regional Energy Regulatory Authority
SDG7	Sustainable Development Goal 7
SO	Strategic Objective
SPCU	Strategic Planning and Coordination Unit
STC-T&E	Specialised Technical Committee on Transport and Energy
TAF	Technical Assistance Facility
ToR	Terms of Reference
UMA	Arab Maghreb Union (Union du Maghreb Arabe)
UNDP	United Nations Development Programme
UN-ECA	United Nations Economic Commission for Africa
UNEP	United Nation Environment Programme
UNIDO	United Nations Industrial Development Organisation
U4E	United for Efficiency
WAPP	West African Power Pool
WB	World Bank
WG	Working Group

PART I INTRODUCTION

1 Context

1.1 The CEPA context

The Continental Energy Programme in Africa (CEPA) aims to strengthen cross-border collaboration in power system and electricity market operations, support the development of transmission networks at national, regional, and continental levels, and advance Africa’s renewable energy and energy efficiency initiatives. By doing so, CEPA contributes to achieving Sustainable Development Goal 7 (SDG7) and other sustainable development objectives.

Through high-level technical assistance and policy guidance, CEPA will facilitate the development and implementation of three pan-African energy programs: the **African Single Electricity Market (AfSEM)**, the **Continental Master Plan (CMP)**, and the **African Energy Efficiency Strategy (AfEES)**.

These efforts will create an enabling environment to attract public and private investment in energy access, renewable energy, and energy efficiency across Africa. The program will also consider climate change, gender, and health impacts, aligning with broader sustainable development goals.

The main Specific Objective with its main Expected Outcomes considered in this assessments is the following:

Table 1 CEPA AfSEM specific objective

Specific Objective	Outcomes	Impacts
SO1: Enable the African Single Electricity Market	<p>Removal of regulatory barriers to foster cross-border electricity (O1.1)</p> <p>Removal of regulatory barriers to foster renewable energy (RE) investments (O.1.2)</p> <p>Facilitation of CMP priority infrastructure investments (O2.1), improving power supply infrastructure and utilization</p>	<p>Harmonized regulation and operation of power systems and markets at all levels (I1.1)</p> <p>enabling an integrated African electricity market with a higher share of renewables (I1.2), contributing to climate change mitigation.</p>

1.2 The AfSEM context

The **African Single Electricity Market (AfSEM)** is a flagship initiative of the African Union, adopted by the Assembly of Heads of State and Government in February 2021. AfSEM aims to establish a fully integrated, harmonized, and competitive continental electricity market that will enable efficient cross-border electricity trade, harmonize regulatory and technical standards, and mobilise investment to achieve universal access to affordable, reliable, and sustainable electricity in line with Agenda 2063.

The **African Single Electricity Market (AfSEM)** is designed to revolutionize how electricity is generated, shared, and consumed across Africa. At its core, AfSEM seeks to break down the barriers that have traditionally limited electricity trade between African nations. By enabling countries to seamlessly buy and sell electricity across borders, the market addresses persistent energy shortages and ensures that surplus energy in one region can be efficiently redirected to areas in need. This cross-border collaboration not only optimizes the use of existing resources but also fosters a spirit of cooperation and shared prosperity among African nations.

Central to AfSEM’s vision is the integration of renewable energy sources into the continent’s power grid. Africa is rich in solar, wind, hydro, and geothermal potential, yet much of this remains untapped. AfSEM aims to change that by creating a framework that encourages and accelerates the adoption of these clean energy sources. By doing so, the market will help shift Africa’s energy mix toward sustainability, reducing reliance on fossil fuels and lowering greenhouse gas emissions.

To make this vision a reality, AfSEM is working to establish a **unified and harmonized electricity market**. This involves aligning regulations, standards, and infrastructure across countries to create a seamless, continent-wide system. Such harmonization is essential for fostering transparency, competition, and efficiency, ensuring that electricity can flow freely and fairly across borders.

Finally, AfSEM recognizes that a truly integrated market requires robust infrastructure. The initiative places a strong emphasis on developing and strengthening regional interconnections—expanding and upgrading transmission networks to link countries and regions. These interconnections are the backbone of the system, ensuring stability, resilience, and the ability to meet growing energy demands across the continent.

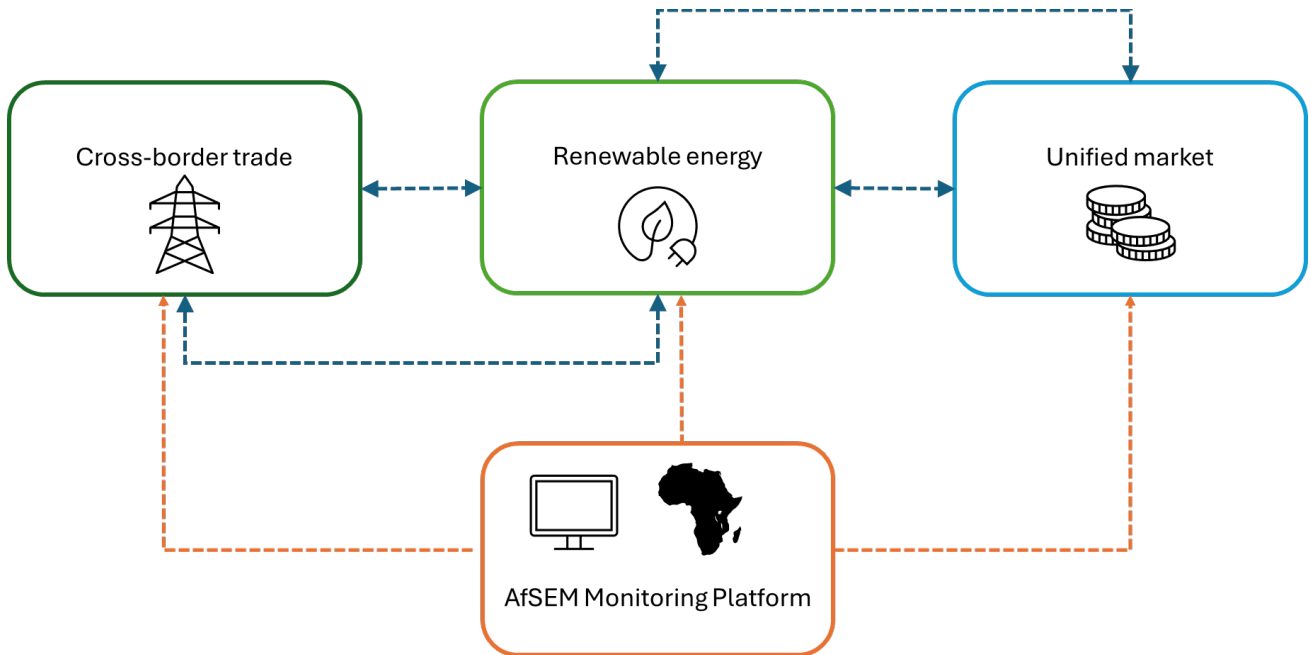


Figure 1 The African Single Electricity Market simplified

Source: CEPA AfSEM

1.3 The AfSEM Governance Structure

The AfSEM Governance Structure provides for a set of institutional mechanisms to coordinate and oversee implementation. At its centre, the Strategic Planning and Coordination Unit (SPCU), housed within the African Union Commission’s Infrastructure and Energy Department (IED), acts as the technical secretariat and is responsible for day-to-day implementation, monitoring and evaluation, reporting, and institutional liaison.

To support the SPCU in fulfilling its wide-ranging mandate, Technical Working Groups (WGs) have been established as specialised expert bodies. The WGs provide targeted technical input, identify barriers and gaps, and prepare recommendations, policies, and guidelines that facilitate AfSEM implementation. Their outputs inform the SPCU and, through it, the deliberations of the High-Level Technical Oversight Committee (HLOC) and the Ministerial Council.

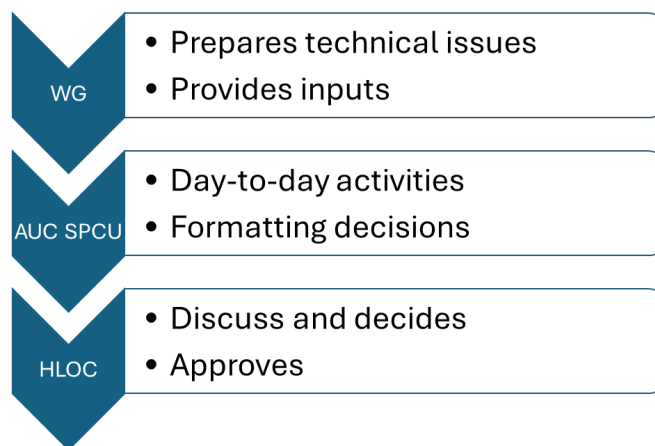


Figure 2 The AfSEM Governance structure

1.4 The AfSEM Working Groups

The Working Groups (WGs) are a key element of the institutional framework envisaged to govern the implementation of the AfSEM which was determined by the report entitled “Recommendation on the Establishment of the AfSEM Strategic Planning and Coordination Unit (SPCU)” that was prepared under the previous European Union (EU) Global Technical Assistance Facility (TAF) for Sustainable Energy (assignment GT071).

The WGs support the AfSEM SPCU with the implementation of its ample tasks which, among others, include monitoring, evaluating and reporting existing barriers and gaps for attaining AfSEM’s Strategic Objectives, assessing progress made towards overcoming identified barriers and gaps, and planning policies, guidelines and strategies aimed at facilitating the attainment of AfSEM’s Strategic Objectives.

Presently, five WGs are envisaged to support the AfSEM SPCU with the implementation of its tasks:

- i. WG1: Electricity Infrastructure;
- ii. WG2: Regulation and Market Operation;
- iii. WG3: Investments Coordination;
- iv. WG4: Renewable Energy and Energy Transition; and
- v. WG5: Energy Efficiency.

Table 2 Working Groups short presentation

Working groups	Main topics/activities
WG1: Electricity Infrastructure	Responsible for assessing, monitoring, and providing technical inputs on generation, transmission, and cross-border interconnections to support AfSEM implementation and the Continental Power Systems Masterplan (CMP)
WG2: Regulation and Market Operation	Responsible for harmonising policy and regulatory frameworks, market rules, and supporting the design, monitoring, and evaluation of AfSEM market operation.
WG3: Investments Coordination	Responsible for coordinating investments planning, identifying priority projects, and aligning financing strategies to support the sustainable development of AfSEM’s electricity infrastructure and markets
WG4: Renewable Energy and Energy Transition	Responsible for developing policies and guidelines on renewable energy and energy transition and their effective integration and mainstreaming into the AfSEM policies, strategies, and market design
WG5: Energy Efficiency	Responsible for developing and promoting policies, guidelines, and best practices on energy efficiency to support AfSEM’s objectives of sustainable, affordable, and reliable electricity access.

The WGs require detailed ToR to enable them to support the AfSEM SPCU with the implementation of its ample mandate

1.5 Objectives

This CEPA activity aims:

- i. to provide high level guidance on ToR;
- ii. to draft ToR for AfSEM WGs to enable the WGs to support the AfSEM SPCU with the implementation of its mandate.

2 Scope of Work

2.1 Background

This CEPA activity provides high level guidance on ToR for WGs and Draft ToR for each WG. The following WGs will be covered by the activity:

- i. WG1 on Electricity Infrastructure,
- ii. WG2 on Regulation and Market Operation,
- iii. WG3 on Investments Coordination,
- iv. WG4 on Renewable Energy and Energy Transition, and
- v. WG5 on Energy Efficiency.

Given the ample mandate of the SPCU and its limited institutional and financial resources to execute this mandate during the first phase of the AfSEM, the support provided by the WGs will be instrumental for the SPCU to fulfil its mandate.

The WGs are mandated to provide structured technical input and to ensure that the SPCU has access to specialised knowledge i.e. technical information and operational data that cannot be generated internally. Their role extends to the collection and analysis of reliable data, the preparation of objective technical assessments (think tank), and the facilitation of broad stakeholder consultations.

By performing these functions, the WGs reinforce the procedural legitimacy of decisions adopted by the High-Level technical Oversight Committee (HTOC) as forwarded by the SPCU and ensure their transparency to all concerned parties. They further contribute to the predictability of AfSEM's institutional development by ensuring that relevant legal, regulatory and technical perspectives are systematically incorporated into planning processes.

The establishment of WGs also reflects the application of the principle of subsidiarity in institutional design, as it allows technical and analytical functions to be undertaken by decentralised expert bodies, while the SPCU retains overall supervisory and coordinating authority.

This division of responsibilities ensures that tasks are performed at the level where they can be executed most effectively, without undermining the central mandate of the SPCU. In light of the above, the WGs constitute an indispensable component of the governance framework of AfSEM.

2.2 Methodology

In the first step the key issues that must be addressed in the ToR for each Working Group will be identified and explained. This stage will ensure that the foundational elements of the ToR are comprehensive, consistent, and responsive to the mandate of the SPCU, while also guaranteeing institutional coherence across all Working Groups.

In the second step, Draft ToR for each WG will be prepared in full compliance with the high-level guidance previously provided. The Draft ToR will serve as enabling basis for the effective functioning of the WGs. The ToR will, inter alia, cover the following matters:

- i. Background, purpose and objectives of each WG
- ii. Mandate of each WG
- iii. Responsibilities of each WG
- iv. Scope of Work of each WG
- v. Governance Structure of each WG
- vi. Working Methods of each WG
- vii. Deliverables / Outputs of each WG

- viii. Resources of each WG
- ix. Duration and Review of WG ToR

The proposed draft ToR will be subsequently discussed with stakeholders under AUC - IED leadership and finalised, taking into account feedback from stakeholders.

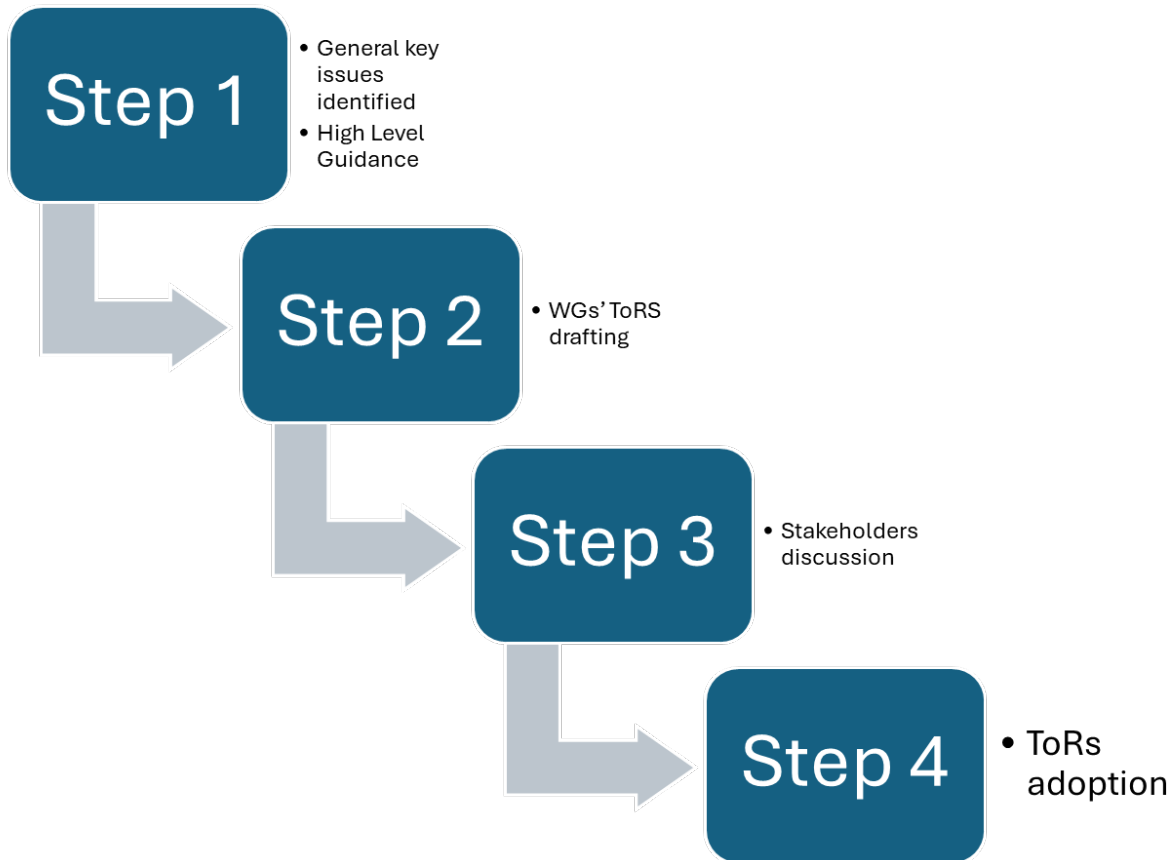


Figure 3 AfSEM Working Groups ToRs Implementation Methodology

In order to remain aligned with existing AfSEM practice, the draft ToR will follow the structure and format applied to the ToR of the AfSEM High Level Oversight Committee, thereby ensuring institutional coherence. The proposed drafts will then be circulated for consultation with relevant stakeholders, after which they will be revised and finalised on the basis of the feedback received. This consultative approach will secure institutional ownership, reinforce institutional coherence with the AfSEM governance framework, and ensure that the ToR constitute a robust and durable framework for the effective functioning of the WGs.

3 Deliverables

The CEPA technical assistance will provide the following deliverables:

Task 1 – Main report – ToR for WGs (this report)

- i. Part I - INTRODUCTION (replace the Inception Report)
This part of the deliverable serves to clarify the background and objectives of the activity, the scope of work, the methodology and present the deliverable
- ii. Part II – HIGH LEVEL GUIDANCE
This part serves to explain the key issues to be addressed by the ToR of each WG, ensuring operational clarity and institutional coherence.
- iii. PART III - Proposed Draft ToR for WGs
This part of the deliverable serves to provide draft Terms of Reference for each WG, prepared in line with the high-level guidance and covering all relevant governance, procedural, and organisational aspects.

Task 2 - Validation Workshop for Draft ToR for WGs

This deliverable will consist in a stakeholder workshop serving to present, review, and discuss the proposed draft WG ToR, collect feedback, and promote ownership and institutional coherence.

Task 3 – Consolidation of comments - Final ToR for WGs

This deliverable will consist in a report serving to consolidate stakeholder feedback into finalised ToR, providing an authoritative framework for the effective functioning of all WGs.

The deliverables will be similar for each type of WG, thereby ensuring coherence across the Working Groups and facilitating comparability, alignment, and consistency within the overall AfSEM governance framework.

PART II: GUIDANCE ON THE TERMS OF REFERENCE OF AfSEM WORKING GROUPS

1 Introduction

This Guidance Note has been prepared to accompany the Terms of Reference (ToR) for the five AfSEM Working Groups in order to explain the rationale, principles, and considerations that guided their drafting, and to ensure a clear and consistent understanding of their structure and content.

The Guidance Note is organised in four parts. The present introduction sets out its overall purpose and approach. The second part highlights the drafting principles that guided the preparation of the five WG ToR, providing the foundation for understanding their common logic. Building on this, the third part offers a high-level overview of the common structure and sections of the ToR, showing how they ensure coherence across all Working Groups. The fourth part then develops this further by explaining in more detail the purpose and content of each section of the WG ToR, highlighting, where relevant, the specific provisions that reflect the thematic focus of each individual Working Group.

2 Drafting Principles

In line with the purpose set out in the introduction, the drafting of the AfSEM Working Groups Terms of Reference has been guided by a set of common principles. These principles ensure that the ToR are coherent, practical, and aligned with AfSEM's strategic objectives, while at the same time reflecting Africa's institutional diversity.

Drafting Principle 1 – Clarity and Accessibility: this principle aims to ensure that all ToR are written in a clear and straightforward manner. For this reason, they are formulated so that members and stakeholders can easily understand the role, scope, and functioning of each Working Group.

Drafting Principle 2 – Consistency across Working Groups: this principle aims to ensure that all ToR follow a common structure. Accordingly, while each group has its own thematic focus, their ToR are organised in the same way, which promotes coherence across AfSEM's governance framework.

Drafting Principle 3 – Alignment with AfSEM Objectives: this principle aims to ensure that the work of each Working Group is directly linked to AfSEM's overall mission of creating an integrated, harmonised, and competitive continental electricity market. In this respect, each mandate and responsibility has been drafted with AfSEM's strategic objectives in mind.

Drafting Principle 4 – Inclusiveness and Balance: this principle aims to ensure broad and balanced representation. As a result, the ToR emphasise participation of AU institutions, regional centres, power pools, regulators, industry associations, and other stakeholders, reflecting Africa's institutional diversity and regional balance.

Drafting Principle 5 – Accountability and Transparency: this principle aims to ensure that the work of the Working Groups can be monitored and evaluated. In this respect, the ToR include provisions on governance, reporting, and deliverables, which create clear lines of accountability.

Drafting Principle 6 – Practical Functionality: this principle aims to ensure that the Working Groups are designed to function effectively within real institutional and financial capacities. To this end, rules on working methods, resources, and support have been included to provide a practical basis for operations.

Drafting Principle 7 – Decentralised Leadership: this principle aims to ensure that chairing of the WGs is not centralised within the AU Commission. In this respect, the ToR provide that each WG elects its own chair, with rotation among Africa's regions to promote ownership and balance.

Together, these principles provide the foundation for the structure and content of the Working Group ToR. Building on this basis, the next part of the Guidance Note offers a high-level overview of the sections that all ToR have in common, explaining their purpose within AfSEM's governance framework.

3 High Level Overview of ToR Content

The ToR of the five AfSEM Working Groups follow a common structure that ensures coherence across the WGs while reflecting their specific thematic focus. All WG Terms of Reference commonly comprise the following sections:

Background: this section places each Working Group within AfSEM's broader policy and governance context. It explains the rationale for establishing the WG, how it connects to AfSEM's institutional framework, and how its thematic area supports continental priorities.

Mandate: this section defines the overall role and scope of the Working Group. It sets out its purpose and links it directly to AfSEM's strategic objectives, providing the basis for the responsibilities that follow.

Responsibilities: this section translates the mandate into concrete functions. It describes how the WG contributes to AfSEM's implementation through tasks that combine monitoring and reporting with the development of policies and guidelines.

Scope of Work: this section outlines the thematic boundaries of each WG. It highlights the main areas where monitoring, evaluation, and policy development are needed, ensuring that the WG's role is both distinct and complementary.

Governance Structure: this section describes how the Working Group is organised and led. It details the roles of the chair, vice-chair(s), the SPCU as secretariat, members, and observers, providing a common and inclusive governance framework.

Working Methods: this section specifies how the WG operates on a day-to-day basis. It sets out the rules for meetings, decision-making, reporting, and sub-groups, ensuring procedural transparency and consistency across all WGs.

Composition: this section explains who makes up the WG. It identifies the categories of institutions and stakeholders represented, the rules for nomination and tenure, and safeguards balanced participation that reflects Africa's institutional diversity.

Deliverables / Outputs: this section describes the tangible results the WG is expected to deliver. It combines common outputs such as contributions to AfSEM reporting with specialised outputs linked to each WG's thematic focus.

Resources and Support: this section identifies the institutional, financial, technical, and in-kind inputs that sustain the WG's work. It ensures that each WG has access to the means necessary to fulfil its role effectively.

Duration and Review: this section establishes the standing nature of the WGs. It explains the review cycle for their ToR and the procedures for amendment, ensuring they remain relevant and responsive to evolving needs.

Taken together, these sections provide a coherent framework that enables the AfSEM Working Groups to function consistently within AfSEM's governance system, while retaining the flexibility to pursue their distinct thematic focus.

4 Detailed Guidance on the WG ToR Sections

Building on the high-level overview, this part of the Guidance Note examines each section of the Working Group ToR in more detail. The purpose is to clarify what role each section plays in the overall design of the ToR and why specific provisions have been included. While the structure is common across all five Working Groups, certain elements vary according to thematic focus, and these differences are highlighted where relevant.

4.1 Background

The background sections of the five AfSEM Working Groups Terms of Reference provide the wider context in which each WG operates. They situate the Working Groups within AfSEM's governance system and explain how their creation responds to AfSEM's strategic objectives. In doing so, they establish the link between continental energy integration under AfSEM and the specialised technical focus of each WG. Where relevant, this also extends to the specific circumstances of Island States, which, while not physically interconnected, are fully part of AfSEM's institutional framework.

The background sections also explain the rationale for setting up five distinct Working Groups. Each WG addresses a thematic area that is critical for AfSEM's success: electricity infrastructure, regulation and market operation, investment coordination, renewable energy and energy transition, and energy efficiency. Together, these thematic areas ensure that all dimensions of AfSEM implementation are supported by specialised technical input.

Finally, the background sections highlight the institutional anchoring of the WGs. They recall the role of the SPCU as the secretariat and explain how the outputs of the WGs feed into the deliberations of the High-Level Technical Oversight Committee and the Ministerial Council (STC on Energy and Transport). By doing so, they demonstrate how each Working Group is linked to AfSEM's overall decision-making and reporting framework.

4.2 Mandate

The mandate sections of the five AfSEM Working Groups Terms of Reference define the overall role and scope of each WG. They explain why the WG exists, what it is tasked to achieve, and how its work contributes to AfSEM's strategic objectives. By setting out this overarching purpose, the mandate provides the foundation for the more detailed responsibilities and scope of work that follow. Where relevant, mandates also recognise the inclusion of Island States, ensuring that their distinct conditions are considered within AfSEM's overall objectives.

Across all five WGs, the mandates combine two central functions: on the one hand, monitoring, evaluation, and reporting on progress and barriers in the thematic area; and on the other hand, contributing to the development of common AfSEM policies, guidelines, and frameworks. This dual role ensures that each WG not only observes and analyses but also shapes the instruments needed for AfSEM implementation.

The mandate sections also make clear that each WG operates in support of the SPCU and feeds into AfSEM's governance processes, including reporting to the High-Level Technical Oversight Committee and the Ministerial Council. In this way, they underline the Working Groups' role as specialised expert bodies that both inform and enable continental decision-making.

The mandates of the five WGs can be summarised as follows:

- i. The mandate of WG1 (Electricity Infrastructure) comprises supporting the SPCU in the monitoring, evaluation, planning, and reporting of electricity infrastructure development across the continent, in line with the Continental Power Systems Masterplan (CMP). WG1 also contributes to the development of policies and approaches that ensure AfSEM infrastructure priorities remain consistent with CMP scenarios and project pipelines.
- ii. The mandate of WG2 (Regulation and Market Operation) comprises providing technical input and evidence-based analysis to support the SPCU in monitoring and evaluating policy, regulatory and market frameworks, and reporting on progress toward harmonisation. WG2 also contributes to the development and harmonization of common AfSEM market rules and guidelines that ensure transparency, competition, and

reliability in cross-border electricity trade.

- iii. The mandate of WG3 (Investment Coordination) comprises assisting/supporting the SPCU in monitoring and evaluating investment planning and financing flows, and reporting on progress in mobilising resources for AfSEM operationalization. WG3 also contributes to the development of common policies, instruments, and enabling conditions that facilitate the coordination of investment and financing strategies across the continent.
- iv. The mandate of WG4 (Renewable Energy and Energy Transition) comprises providing technical expertise to support the SPCU in monitoring, evaluating, and reporting on renewable energy deployment and adopting the energy transition measures, including IPPs, off-grid solutions, manufacturing, and regional trading. WG4 also contributes to the development of common AfSEM policies, guidelines, strategies, and roadmaps for renewable energy and energy transition, promoting coherence across Member States and regions and supporting the creation of enabling conditions for their implementation.
- v. The mandate of WG5 (Energy Efficiency) comprises supporting the SPCU in monitoring, evaluating, and reporting on energy efficiency measures across sectors and regions. WG5 also contributes to the development of common AfSEM policies, guidelines, and best practices that advance energy efficiency as a key element of AfSEM's objectives for sustainable, affordable, and reliable electricity access, while improving system performance and reducing demand.

By setting out these provisions, the mandate sections of the five AfSEM Working Group ToR establish each Working Group as a specialised expert body with a distinct but complementary role in AfSEM's governance framework.

4.3 Responsibilities

The responsibilities sections of the five AfSEM Working Groups Terms of Reference translate each WG's mandate into concrete tasks. They specify what the WG is expected to do in practice and thereby make the mandate operational.

Across all WGs, responsibilities follow a common pattern. They include monitoring progress and challenges in the WG's thematic field, identifying barriers and gaps, and preparing recommendations to address them. They also cover contributions to the drafting of AfSEM policies, guidelines, and action plans, ensuring that technical expertise informs continental decision-making.

At the same time, the responsibilities sections reflect the particular focus of each WG. For example, some emphasize electricity infrastructure and system integration, others highlight regulatory harmonisation, investment frameworks, renewable energy deployment, or energy efficiency measures. In each case, the responsibilities are tailored to ensure that the WG adds value within its thematic scope while remaining aligned with AfSEM's overall objectives.

Through this approach, the responsibilities sections create a direct link between the overarching mandate and the day-to-day work of the WGs, ensuring that their outputs are both relevant and actionable.

The responsibilities of the five WGs can be summarised as follows:

- i. The responsibilities of WG1 (Electricity Infrastructure) comprise supporting the SPCU in monitoring, evaluating, and reporting on the state of generation, transmission, and cross-border interconnections across the continent, in line with the Continental Power Systems Masterplan (CMP). WG1 also contributes to the development of policies and technical approaches that ensure infrastructure priorities are consistent with CMP scenarios and AfSEM's integration objectives.
- ii. The responsibilities of WG2 (Regulation and Market Operation) comprise providing technical input to monitor and assess regulatory and market frameworks, and reporting on progress toward their harmonisation. WG2 also develops common AfSEM rules, standards, and guidelines that facilitate transparent, competitive, and reliable cross-border electricity markets.
- iii. The responsibilities of WG3 (Investment Coordination) comprise assisting the SPCU in monitoring and

evaluating investment flows, project pipelines, and financing frameworks, and reporting on progress in resource mobilisation. WG3 also develops common policies, instruments, and enabling conditions to strengthen investment coordination and to align financing strategies with AfSEM's objectives.

- iv. The responsibilities of WG4 (Renewable Energy and Energy Transition) comprise supporting the SPCU in monitoring, evaluating, and reporting on renewable energy deployment and energy transition pathways, including IPPs, off-grid systems, manufacturing, and regional trading. WG4 also contributes to the development of common AfSEM policies, guidelines, and roadmaps for renewable energy and energy transition, ensuring coherence across Member States and regions while supporting long-term sustainability and resilience.
- v. The responsibilities of WG5 (Energy Efficiency) comprise supporting the SPCU in monitoring, evaluating, and reporting on energy efficiency measures across sectors and regions. WG5 also contributes to the development of common AfSEM policies, guidelines, and best practices that promote energy efficiency as a central pillar of AfSEM's objectives for sustainable, affordable, and reliable electricity access, helping to reduce demand and improve system performance.

By combining these functions, the responsibilities sections of the five AfSEM Working Group ToR ensure that each Working Group contributes both to evidence-based monitoring and reporting, and to the development of common policies and guidelines that advance AfSEM's continental electricity market.

4.4 Scope of Work

The scope of work sections of the five AfSEM Working Groups Terms of Reference define the thematic boundaries within which each WG operates. They clarify what subject areas are included in a WG's remit and therefore provide focus for its monitoring, analysis, and policy contributions.

Across all WGs, the scope of work builds directly on the mandate and responsibilities. It identifies the specific issues where evidence-based input is needed to support AfSEM implementation, such as electricity infrastructure development, regulatory harmonisation, investment planning, renewable energy deployment, or energy efficiency measures. In doing so, it ensures that the work of each WG is both targeted and relevant to AfSEM's strategic objectives.

The scope of work sections also serve to distinguish the roles of the five WGs from one another. By setting clear thematic boundaries, they prevent overlap and duplication while ensuring complementarity. This guarantees that all critical aspects of AfSEM implementation are addressed, with each WG contributing expertise in its own field.

Through these provisions, the scope of work sections help align the efforts of the WGs with AfSEM's overall priorities, while giving each group a clearly defined space to exercise its specialised functions. Where relevant, they also take into account the particular circumstances of Island States, ensuring that their needs and opportunities are considered within AfSEM's institutional framework.

The scope of work of the five Working Groups can be summarised as follows:

- i. The scope of work of WG1 (Electricity Infrastructure) comprises monitoring and reporting on generation, transmission, and cross-border interconnections across the continent, in line with the Continental Power Systems Masterplan (CMP). The scope of WG1 also includes developing technical inputs and recommendations that support AfSEM in prioritising and coordinating infrastructure development in a consistent and forward-looking manner.
- ii. The scope of work of WG2 (Regulation and Market Operation) comprises assessing and reporting on the progress of regulatory harmonisation and market operation across Member States and regions. The scope of WG2 also extends to developing AfSEM market rules, policy, regulatory frameworks, and operational guidelines that ensure transparency, efficiency, and reliability in cross-border electricity trade.
- iii. The scope of work of WG3 (Investment Coordination) comprises monitoring and reporting on investment needs, financing flows, and project pipelines at continental and regional levels. The scope of WG3 also

covers developing common investment policies, instruments, and coordination mechanisms that help align national and regional financing strategies with AfSEM's objectives.

- iv. The scope of work of WG4 (Renewable Energy and Energy Transition) comprises monitoring and reporting on renewable energy deployment and energy transition pathways, including in the fields of IPPs, off-grid development, manufacturing, and regional trade. The scope of WG4 also includes developing AfSEM-wide policies, guidelines, and roadmaps for renewable energy and energy transition, promoting coherence across Member States and regions while supporting long-term sustainability and resilience.
- v. The scope of work of WG5 (Energy Efficiency) comprises monitoring and reporting on progress in energy efficiency measures and strategies across Africa. The scope of WG5 also extends to developing common AfSEM policies, guidelines, and best practices that advance energy efficiency as a key element of AfSEM's objectives to reduce demand, improve system performance, and ensure sustainable, affordable, and reliable electricity access.

4.5 Governance Structure

The governance structure sections of the five AfSEM Working Groups Terms of Reference explain how each WG is organised and managed. They define the internal leadership arrangements, the role of the SPCU as secretariat, and the participation of members, observers, and advisory members. In this way, they provide a stable and transparent framework for the functioning of the WGs.

The governance structures are common across all five WGs, ensuring consistency and predictability in how they operate. Each WG is led by a chair, and AUC as co-chair supported by vice-chairs, with the first Chair and the Vice Chair positions rotating among Africa's regions. The Co-Chair supports the Chair's functions and may act on the Chair's behalf when delegated or when the Chair is unavailable. The SPCU acts as the permanent secretariat, providing organisational, technical, and reporting support. Members are nominated experts with voting rights who contribute actively to meetings and technical work. Advisory Members (where applicable) may take part in discussions and provide specialised expertise, but they do not hold voting rights and are not counted toward the quorum. Observers and resource persons may also be invited to support deliberations on specific issues; however, they likewise do not possess voting rights and are not counted to the quorum.

By harmonising the governance structure across the WGs, the ToR create a coherent framework that ensures continuity, accountability, and inclusiveness. At the same time, this structure enables each WG to maintain its distinct thematic focus and to deliver inputs that are directly relevant to AfSEM's implementation.

4.6 Working Methods

The working methods sections of the five AfSEM Working Groups Terms of Reference describe how the WGs conduct their activities in practice. They establish the procedural rules that guide meetings, decision-making, reporting, and the use of sub-groups or task teams.

The provisions are common across all WGs, ensuring that they operate in a consistent and transparent manner. Each WG is expected to meet on a regular basis, normally four times per year, either in person or virtually. Extraordinary meetings can be convened when urgent issues arise. Rules on notice periods, quorum, and decision-making procedures are included to provide clarity and predictability. Reporting obligations are also defined, ensuring that outcomes of WG meetings are promptly documented and communicated to the SPCU.

The working methods sections also allow flexibility by enabling WGs to establish thematic sub-groups or task teams when specialised issues require deeper analysis. These provisions strike a balance between procedural consistency and adaptability, ensuring that the WGs can function effectively while responding to evolving technical and institutional needs.

4.7 Composition

The composition sections of the five AfSEM Working Groups Terms of Reference define who participates in the WGs and how members are appointed. They ensure that each WG benefits from broad expertise, balanced

representation, and institutional legitimacy.

The composition of WG members varies depending on the thematic focus of each WG. Depending on the scope of work, members comprise representatives of African Union institutions, Regional Economic Communities (RECs), regional power pools, regional regulatory authorities, regional renewable energy and energy efficiency centres, and continental or regional financing institutions. In addition, other key stakeholders such as the Association of Power Utilities of Africa (APUA), the African Forum for utility Regulators (AFUR), the African School of Regulation (ASR), industry associations, and specialised technical organisations are included to provide sector-wide expertise.

All members are formally nominated by their parent institutions, typically for a renewable term of three years. This arrangement provides continuity while allowing for rotation and renewal. Observers and resource persons, such as development partners or financial institutions, may also be invited to contribute to specific discussions without voting rights.

Through these provisions, the composition sections of the AfSEM WG Terms of Reference ensure that each Working Group brings together the right mix of technical expertise, institutional perspectives, and regional balance to carry out its mandate effectively.

4.8 Deliverables / Outputs

The deliverables and outputs sections of the AfSEM Working Groups Terms of Reference provide clarity on what each Working Group is expected to produce in support of AfSEM implementation. They translate the mandates and responsibilities into tangible results, ensuring that the work of the WGs contributes directly to AfSEM's monitoring, reporting, and policy development.

Some outputs are common across all WGs. These include contributions to AfSEM's monitoring and evaluation (M&E) reports, the provision of validated data and technical inputs, the preparation of recommendations for AfSEM strategies and action plans, and documentation of stakeholder consultations. The WGs are also expected to contribute to awareness-raising and communication, helping to disseminate AfSEM progress and findings.

The outputs vary depending on the thematic focus of each WG. In addition to the common deliverables, each Working Group prepares specialised technical reports in its area of expertise. Each WG may further be tasked by the SPCU to deliver *ad hoc* analyses or technical inputs needed for reporting to the High-Level Technical Oversight Committee or the Ministerial Council.

Through these provisions, the deliverables and outputs sections of the AfSEM Working Groups Terms of Reference ensure that the work of each WG results in concrete contributions to AfSEM's implementation, while reflecting the thematic expertise of the group.

4.9 Resources and Support

The resources and support sections of the AfSEM Working Groups Terms of Reference set out how the Working Groups are enabled to perform their functions effectively. They outline the institutional, financial, technical, and in-kind contributions that provide the foundation for the work of the WGs and enable members to fulfil their mandates.

The SPCU provides secretariat services to all WGs, including the coordination of meetings, preparation and circulation of documents, maintenance of records, and support for the preparation of reports and recommendations. Financial resources are primarily drawn from the AfSEM budget as approved by the African Union, supplemented where necessary by contributions from development partners in line with AU financial regulations. Costs of participation are generally borne by the AUC and also nominating institutions, though specific support may be provided through AfSEM programmes or partner-funded initiatives.

The resources and support sections of the AfSEM WGs further highlight the role of technical and in-kind contributions. Working Groups have access to AfSEM's digital information platform and to analytical and modelling tools such as those developed under the Continental Power Systems Masterplan (CMP) (MWANGA).

Member institutions provide in-kind contributions through the expertise and time of their nominated representatives, the sharing of data, and the hosting of meetings or workshops when feasible.

Through these provisions, the resources and support sections of the AfSEM Working Groups Terms of Reference ensure that the WGs are equipped with the institutional backing, financial means, and technical tools needed to fulfil their mandates and deliver their outputs.

4.10 Duration and Review

The duration and review sections of the AfSEM Working Groups Terms of Reference define how long the WGs remain in operation and how their ToRs may be updated. They provide clarity on the standing nature of the WGs, the review cycles to assess their relevance, and the procedures for amendments where needed.

The AfSEM WGs are established as standing technical bodies that remain in operation for as long as AfSEM is implemented. Their ToRs are subject to regular review, normally every three years, to assess whether the mandate, responsibilities, and outputs of each WG remain appropriate and effective. Earlier reviews may be undertaken if requested by the SPCU or the High-Level Technical Oversight Committee.

The duration and review sections of the AfSEM WGs also define the procedures for amending ToRs. Proposals for amendment may be put forward by WG members or by the SPCU. Draft changes are reviewed by the SPCU and then submitted to the High-Level Technical Oversight Committee for consideration. Final approval rests with the Ministerial Council.

Through these provisions, the duration and review sections of the AfSEM Working Groups Terms of Reference ensure that the WGs remain permanent features of AfSEM's governance structures while allowing their ToRs to evolve in response to new challenges and priorities.

PART III WORKING GROUP TERMS OF REFERENCE

1 Working Group 1 Electricity Infrastructure

Next page

The Specialised Technical Committee on Transport and Energy (STC-T&E), acting as the Ministerial Council for the African Single Electricity Market (AfSEM), has in its [session/meeting reference, date] adopted the following Terms of Reference for Working Group 1 on Electricity Infrastructure (WG1) under the AfSEM Governance Framework:

Terms of Reference

African Single Electricity Market (AfSEM)

Working Group 1: Electricity Infrastructure

1. Background

- 1.1 The African Single Electricity Market (AfSEM) is a flagship initiative of the African Union, adopted by the Assembly of Heads of State and Government in February 2021. AfSEM aims to establish a fully integrated, harmonized, and competitive continental electricity market that will enable efficient cross-border electricity trade, harmonize regulatory and technical standards, and mobilise investment to achieve universal access to affordable, reliable, and sustainable electricity in line with Agenda 2063.
- 1.2 The AfSEM Governance Structure provides for a set of institutional mechanisms to coordinate and oversee implementation. At its centre, the Strategic Planning and Coordination Unit (SPCU), housed within the African Union Commission's Infrastructure and Energy Department (IED), acts as the technical secretariat and is responsible for day-to-day implementation, monitoring and evaluation, reporting, and institutional liaison.
- 1.3 To support the SPCU in fulfilling its wide-ranging mandate, Technical Working Groups (WGs) have been established as specialised expert bodies. The WGs provide targeted technical input, identify barriers and gaps, and prepare recommendations, policies, and guidelines that facilitate AfSEM implementation. Their outputs inform the SPCU and, through it, the deliberations of the High-Level Technical Oversight Committee (HLOC) and the Ministerial Council.
- 1.4 Working Group 1 on Electricity Infrastructure (WG1) has been created to focus on the physical backbone of AfSEM — generation assets, transmission networks, and cross-border interconnections. WG1 plays a central role in assessing infrastructure status, monitoring and evaluating progress, supporting the African Continental Power Systems Masterplan (CMP), and contributing to the development of common continental approaches to electricity infrastructure. While most Island States are not physically interconnected with continental grids, they are fully part of AfSEM's institutional framework. Where relevant, their specific circumstances are therefore taken into account in infrastructure planning, resilience considerations, and investment frameworks.
- 1.5 These Terms of Reference set out the mandate, responsibilities, scope of work, governance structure, working methods, composition, resources, deliverables, and duration of WG1.

2. Mandate

- 2.1 WG1 on Electricity Infrastructure is mandated to provide technical expertise and evidence-based analysis to support the SPCU in the monitoring, evaluation, planning, and reporting of electricity infrastructure development across the continent, in line with the CMP
- 2.2 WG1 operates under the AfSEM Governance Structure and contributes to the deliberations of the HLOC by delivering specialised inputs in the field of electricity infrastructure, ensuring that AfSEM infrastructure

priorities are consistent with the CMP and that reporting reflects the project pipelines and scenarios as identified in the CMP.

3. Responsibilities

In fulfilling its mandate, WG1 shall exercise the following responsibilities:

3.1 Technical Preparation and Analysis

- (1) Prepare technical background material and evidence-based analysis on electricity infrastructure to support SPCU reports and HLOC deliberations, in line with the CMP.
- (2) Provide inputs on infrastructure-related aspects of AfSEM strategies, implementation policies, and operational plans, ensuring consistency with infrastructure priorities as identified in the CMP.

3.2 Monitoring and Evaluation (M&E)

- (1) Monitor and assess progress, challenges, and gaps in the development of a well-connected continental electricity infrastructure, consistent with the CMP.
- (2) Validate data on generation and transmission infrastructure at national, regional, and continental levels, using agreed AfSEM M&E indicators and the digital information platform, with reference to CMP project pipelines.
- (3) Contribute to the preparation of infrastructure-related M&E reports compiled by the SPCU for submission to the HLOC and other AfSEM stakeholders.

3.3 Policy and Planning Support

- (1) Provide technical recommendations to inform revisions of AfSEM strategic plans, action plans, and operational guidelines with respect to electricity infrastructure, ensuring alignment of continental priorities with regional project pipelines and available financing mechanisms, consistent with the CMP.
- (2) Support the integration of WG1's technical outputs into the African Continental Power Systems Masterplan (CMP).

3.4 Consultation and Stakeholder Engagement

- (1) Facilitate consultations with Member States, regional power pools, utilities, regulators, and development partners on infrastructure planning, monitoring, and evaluation, including issues relevant to the CMP.
- (2) Promote harmonised approaches to electricity infrastructure assessment and planning methodologies across regions.

3.5 Awareness and Communication

- (1) Support the SPCU in raising awareness and disseminating information on AfSEM's progress in the field of electricity infrastructure, including through reports, stakeholder platforms, and technical briefings.

3.6 Ad Hoc Technical Support

- (1) Provide specialised technical input on electricity infrastructure at the request of the SPCU, including analysis, data, or expert advice required to support AfSEM implementation, HLOC reporting, or preparation of documents for the Ministerial Council.

4. Scope of Work

WG1 shall focus on the following thematic areas in the field of electricity infrastructure:

4.1 Generation Infrastructure

- (1) Assess existing and planned generation capacity across Member States and regions, consistent with the CMP.

- (2) Identify infrastructure gaps and opportunities for optimising Africa's diverse resource endowments, with emphasis on sustainable and least-cost development, in line with the CMP.

4.2 Transmission Infrastructure and Interconnections

- (1) Map and analyse existing and planned transmission networks and cross-border interconnections, with reference to CMP transmission planning data.
- (2) Identify and recommend cross-regional critical transmission corridors necessary for enabling effective cross-border power trade, consistent with CMP priorities.
- (3) Provide technical input to regional and continental transmission master planning processes, ensuring coherence with the CMP.

4.3 System Integration and Flexibility

- (1) Analyse requirements for grid stability, balancing, and ancillary services in the context of increasing cross-border trade, consistent with the CMP.
- (2) Consider emerging technologies such as storage, digitalisation, and smart grids for strengthening system reliability and resilience, considering the CMP.

4.4 African Continental Power Systems Masterplan (CMP)

- (1) Provide validated data, modelling inputs, and technical recommendations on generation and transmission to support the preparation and updating of the CMP.
- (2) Ensure WG1 outputs are consistent with and feed into the CMP as the continental reference framework for long-term electricity infrastructure planning.

4.5 Data Validation

- (1) Validate national, regional, and continental-level data on generation and transmission assets, collected by AfREC in line with AfSEM's M&E indicators.
- (2) Support the development and use of modelling tools for infrastructure analysis.

4.6 Resilience and Sustainability

- (1) Assess the resilience of electricity infrastructure to climate change, natural hazards, and other systemic risks, consistent with the CMP.
- (2) Integrate environmental and social sustainability considerations into infrastructure assessments, consistent with CMP sustainability parameters.

4.7 Cross-Cutting Coordination

- (1) Collaborate with other AfSEM Working Groups to ensure alignment between infrastructure planning and complementary areas, including regulation and market operation (WG2), investment coordination (WG3), renewable energy and energy transition (WG4), and energy efficiency (WG5).
- (2) Contribute technical infrastructure inputs to SPCU reporting and submissions to the HLOC and Ministerial Council.

5. Governance Structure

5.1 Chair and Vice-Chair(s)

- (1) WG1 shall be led by a Chair elected from among its members for a term of two (2) years, renewable once.
- (2) The Chair position shall rotate among the five African regions.
- (3) One or two Vice-Chairs shall be elected to support the Chair and act on their behalf when necessary.

5.2 Functions of the Chair

- (1) Convene and preside over WG1 meetings in consultation with the SPCU.
- (2) The Chair shall provide strategic direction to WG1 in line with its mandate and responsibilities.
- (3) The Chair shall ensure effective coordination among members and sub-groups (See 6.6).
- (4) Represent WG1 in relevant AfSEM coordination forums when requested by the SPCU.
- (5) The Vice-Chair shall assist the Chair in these functions and assume the Chair's role as required.

5.3 Secretariat

- (1) The AUC-IED-SPCU in collaboration with AUDA-NEPAD shall act as the Secretariat of WG1.
- (2) The Secretariat shall be responsible for convening meetings, preparing and circulating the agenda and documents, maintaining records, and ensuring timely communication with members.
- (3) The Secretariat shall support WG1 in preparing reports and recommendations for submission to the HLOC.

5.4 Members

- (1) Members shall be the experts formally nominated by their respective institutions as defined under the Composition section.
- (2) Members shall actively participate in meetings, contribute technical expertise, and support data collection and analysis within their institutional remit.

5.5 Advisory Members

- (1) Advisory Members, as defined under the Composition section, may participate in WG1 discussions and provide technical input.
- (2) Advisory Members shall not have voting rights and shall not count towards the quorum.

5.6 Observers and Resource Persons

- (1) WG1 may invite observers or resource persons from development partners, financial institutions, research organisations, and other relevant stakeholders to contribute technical input on specific issues.
- (2) Observers and resource persons shall not have voting rights.

6. Working Methods

6.1 Meetings

- (1) WG1 shall meet four (4) times per year, on a quarterly basis.
- (2) Meetings may be held in person or online, depending on logistical considerations and resources.
- (3) Extraordinary meetings may be convened at the request of the Chair, the SPCU, or at least one-third of the members, to address urgent issues requiring timely deliberation.

6.2 Convening and Notice

- (1) Meetings shall be convened by the Chair of WG1 in consultation with the SPCU.
- (2) Notice of regular meetings, together with a draft agenda, shall be circulated to members at least four (4) weeks in advance.
- (3) For extraordinary meetings, a minimum of seven (7) days' notice shall be given, unless urgency requires shorter notice with the agreement of members.

6.3 Quorum

(1) A quorum shall be constituted when at least one-third of all expert group members, as defined under Section 7.2 (Composition), are present, provided that the quorum includes representation from at least one (1) member of Expert Group 1 (African Union Institutions), two (2) members of Expert Group 2 (Regional Regulatory Authorities) and two (2) members of Expert Group 3 (Regional Power Pools).

(2) Advisory Members (Expert Group 7) shall not count towards the quorum.

6.4 Decision-Making

(1) Where a quorum, as defined under Section 6.3, is established, WG1 shall seek to adopt recommendations by consensus.

(2) Where consensus cannot be achieved, a simple majority of expert group members present shall be sufficient for adoption.

(3) If neither consensus nor a simple majority can be reached, the Chairperson shall cast the decisive vote.

(4) Advisory Members (Expert Group 7), observers and resource persons may participate in discussions but shall not have voting rights.

6.5 Reporting

(1) The Chair, supported by the SPCU, shall ensure that minutes and agreed recommendations of each meeting are recorded and circulated within two (2) weeks.

(2) WG1 shall report its findings, recommendations, and technical inputs to the SPCU, which will consolidate them for submission to the HLOC.

6.6 Sub-Groups and Task Teams

(1) WG1 may establish thematic sub-groups or ad hoc task teams to address specific technical issues.

(2) Sub-groups and task teams shall report back to WG1 for consolidation and adoption of recommendations.

6.7 Cross-WG Collaboration Mechanism

(1) Each WG shall nominate a Liaison Officer to interface with other **WGs**, ensuring coherence across technical, regulatory, financial, and sustainability dimensions. A semi-annual AfSEM WG Coordination Forum will be convened to review progress, align recommendations, and resolve cross-cutting issues.

7. Composition

7.1 General Principle

WG1 shall be comprised of technical experts nominated by AfSEM stakeholders with recognised competence in electricity infrastructure planning, development, and regulation. Members shall be appointed by their respective institutions and serve in their official capacity.

7.2 Institutional Representation

WG1 shall include one (1) expert from each of the following institutions and stakeholder groups:

- (1) Expert Group 1 : African Union Institutions / AfSEM Main implementing Partners
 - African Union Commission (AUC) – Infrastructure and Energy Department (IED)
 - African Energy Commission (AFREC)
 - AfSEM Strategic Planning and Coordination Unit (SPCU)
 - African Union Development Agency (AUDA-NEPAD)
 - African Continental Free Trade Area (AfCFTA)

- African Development Bank (AfDB)
 - United Nations Economic Commission for Africa (UN ECA)
- (2) Expert Group 2: Regional Regulatory Authorities
- ECOWAS Regional Electricity Regulatory Authority (ERERA) – West Africa
 - The Southern Africa Development Community Regional Energy Regulators Authority (SARERA) when operationalized, or until this operationalization, the Regional Energy Regulators Association of Southern Africa (RERA) – Southern Africa
 - Independent Regulatory Board (IRB) – East Africa
 - Commission Régionale de Régulation de l'Électricité de l'Afrique centrale (CORREAC) when operationalized, or until operationalization, a regional regulatory representative named by the ECCAS - Central Africa
 - Mediterranean Energy Regulators Association (MEDREG) – representing Northern Africa regulators¹
- (3) Expert Group 3: Regional Power Pools
- West African Power Pool (WAPP)
 - Southern African Power Pool (SAPP)
 - Eastern Africa Power Pool (EAPP)
 - Central Africa Power Pool (CAPP)
 - Comité Maghrébin de l'Électricité (COMELEC) – representing Northern Africa utilities
- (4) Expert Group 4: Regional Economic Communities (RECs)
- Arab Maghreb Union (UMA)
 - Common Market for Eastern and Southern Africa (COMESA)
 - Community of Sahel-Saharan States (CEN-SAD)
 - East African Community (EAC)
 - Economic Community of Central African States (ECCAS)
 - Economic Community of West African States (ECOWAS)
 - Intergovernmental Authority on Development (IGAD)
 - Southern African Development Community (SADC)
- (5) Expert Group 5 : Regional Energy Efficiency Centers
- East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE)
 - SADC Centre for Renewable Energy and Efficiency (SACREEE)
 - Centre for Renewable Energy and Energy Efficiency for Central Africa (CEREEAC)
 - ECOWAS Centre for Renewable Energy and Efficiency (ECREEE)
 - Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)
- (6) Expert Group 6: Other Continental, regional and Pan-African Stakeholders
- Association of Power Utilities of Africa (APUA)
 - African Forum for Utility Regulators (AFUR)

¹ Note: Northern Africa does not yet have a dedicated regional regulatory association. MEDREG, which includes Northern African national regulators, is recognised as the most appropriate platform to represent the region until a Northern African regional structure is established.

- Energy Regulators Association of East Africa (EREA) – East Africa
- Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA) – COMESA / Southern & Eastern Africa

(7) Expert Group 7: Advisory Members

- European Union (EU)
- European Investment Bank (EIB)
- The World Bank (WB)
- Agence Française de Développement (AFD)
- Kreditanstalt für Wiederaufbau (KfW)
- Gesellschaft fuer Internationale Zusammenarbeit (GIZ)
- International Energy Agency (IEA)
- International Renewable Energy Agency (IRENA)
- United Nations Development Programme (UNDP)
- United Nations Industrial Development Organisation (UNIDO)
- United Nations Environment Programme (UNEP)

Advisory Members shall participate in the work of WG1 in an advisory capacity and shall not have voting rights.

7.3 Additional Experts

Subject to approval by the SPCU, additional experts from Member States, development partners, financial institutions, or specialised technical organisations may be invited to participate in WG1 as observers or resource persons, without voting rights.

7.4 Appointment and Tenure

Experts shall be nominated by their parent institutions for a renewable term of three (3) years, ensuring continuity while allowing for rotation as necessary. Each institution shall notify the SPCU in writing of its appointed representative.

8. Deliverables / Outputs

WG1 shall, in accordance with its mandate and responsibilities, produce the following deliverables and outputs in support of AfSEM implementation:

8.1 Monitoring and Evaluation (M&E) Contributions

- (1) Provide periodic technical inputs for SPCU-led M&E reports on electricity infrastructure, including validated data, analysis of progress, and identification of gaps, consistent with the CMP.
- (2) Deliver annual infrastructure status updates covering generation, transmission, and cross-border interconnections, ensuring alignment with CMP assumptions and project pipelines.

8.2 Technical Reports and Recommendations

- (1) Thematic reports on infrastructure development, system integration, and grid reliability, to inform SPCU submissions to the HLOC.
- (2) Technical recommendations on infrastructure-related aspects of AfSEM strategies, action plans, and operational guidelines, ensuring coherence with CMP priorities.

8.3 Contribution to the African Continental Power Systems Masterplan (CMP)

- (1) Validated infrastructure data, modelling inputs, and technical recommendations to support the preparation and regular updating of the CMP.
- (2) Assurance that WG1 outputs are consistent with the CMP as the continental reference framework for long-term electricity planning.

8.4 Consultation Outputs

- (1) Records and summaries of stakeholder consultations with Member States, regional power pools, regulators, and utilities on infrastructure planning, monitoring, and evaluation, including issued relevant to CMP development.
- (2) Consolidated feedback and recommendations reflecting regional and continental perspectives, ensuring alignment with CMP infrastructure priorities.

8.5 Awareness and Communication Tools

- (1) Contributions to AfSEM awareness-raising materials, highlighting progress and challenges in the field of electricity infrastructure.
- (2) Technical briefings and knowledge products for dissemination through the AfSEM Electricity Forum and other stakeholder platforms.

8.6 Ad Hoc Deliverables

- (1) Additional studies, analyses, or recommendations requested by the SPCU in the field of electricity infrastructure, in alignment with the CMP.

8.7 Performance Measurement & Reporting

Each WG shall develop, within six months of its establishment, a **Performance Indicator Matrix** aligned with AfSEM's Strategic Objectives (SO1–SO3) and the CMP. This matrix will include:

- (1) Quantifiable annual targets (e.g., % increase in harmonized regulatory frameworks adopted, xx amount of bankable investment identified, MW of cross-border capacity tracked).
- (2) Quality indicators for WG deliverables (timeliness, data integrity, stakeholder satisfaction). An annual self-assessment report to be validated by the SPCU and submitted to the HLOC for transparency and accountability.

9. Resources and Support

9.1 Secretariat Support

- (1) The SPCU shall, with support from AUC -IED, provide secretariat services to WG1.
- (2) The Secretariat shall coordinate meetings, prepare and circulate documents, maintain records, and support the preparation of WG1 reports and recommendations.

9.2 Financial Resources

- (1) WG1 activities shall be financed through the AfSEM budget as approved by the African Union, supplemented by contributions from development partners in line with AU financial regulations and procedures.
- (2) Costs of participation (e.g. travel and accommodation) shall generally be borne by the nominating institutions, unless specific support is provided under AfSEM programmes or partner-funded initiatives.
- (3) Financial Coordination & Cost Control: To strengthen sustainability and predictability of financing for the Working Groups, the SPCU shall establish an AfSEM Financing Coordination Mechanism (AFCM). This mechanism shall:

- Align WG activities with multi-year budget envelopes approved by the AUC and development partners.
- Maintain a rolling pipeline of priority technical studies and capacity building actions, pre-screened for funding eligibility by key cooperation partners.
- Track unit cost benchmarks (e.g., cost per technical study, per data validation exercise) to ensure cost-efficiency and transparent resource allocation.

9.3 Technical Resources

- (1) WG1 shall have access to AfSEM's digital information platform for data collection and monitoring, and to modelling tools developed under the African Continental Power Systems Masterplan (CMP).
- (2) Additional technical studies or tools required for WG1 tasks may be commissioned by the SPCU, subject to availability of resources.

9.4 In-Kind Contributions

- (1) Member institutions shall provide in-kind support through the time and expertise of their nominated representatives, sharing of relevant data, and hosting of WG1 meetings or workshops when feasible.

10. Duration and Review

10.1 Duration

- (1) WG1 on Electricity Infrastructure is established as a standing technical body under the AfSEM Governance Structure.
- (2) It shall remain in operation for the duration of AfSEM's implementation, unless otherwise decided by the Ministerial Council (Specialised Technical Committee on Transport and Energy – STC-T&E).

10.2 Review of ToR

- (1) These Terms of Reference shall be reviewed every three (3) years, or earlier if requested by the SPCU or the HLOC.
- (2) The review shall assess the relevance, effectiveness, and efficiency of WG1 in fulfilling its mandate, responsibilities, and outputs.

10.3 Amendments

- (1) Amendments to these Terms of Reference may be proposed by WG1 members or the SPCU.
- (2) Proposed amendments shall be reviewed by the SPCU and submitted to the HLOC for consideration.
- (3) Final approval of amendments shall rest with the Ministerial Council (STC-T&E).

2 Working Group 2 Regulation and Market Operation

Next page

The Specialised Technical Committee on Transport and Energy (STC-T&E), acting as the Ministerial Council for the African Single Electricity Market (AfSEM), has in its [session/meeting reference, date] adopted the following Terms of Reference for Working Group 2 on Regulation and Market Operation (WG2) under the AfSEM Governance Framework:

Terms of Reference

African Single Electricity Market (AfSEM)

Working Group 2: Regulation and Market Operation

1. Background

- 1.1 The African Single Electricity Market (AfSEM) is a flagship initiative of the African Union, adopted by the Assembly of Heads of State and Government in February 2021. AfSEM aims to establish a fully integrated, harmonized, and competitive continental electricity market that will enable efficient cross-border electricity trade, harmonize regulatory and technical standards, and mobilise investment to achieve universal access to affordable, reliable, and sustainable electricity in line with Agenda 2063.
- 1.2 The AfSEM Governance Structure provides for a set of institutional mechanisms to coordinate and oversee implementation. At its centre, the Strategic Planning and Coordination Unit (SPCU), housed within the African Union Commission's Infrastructure and Energy Department (IED), acts as the technical secretariat and is responsible for day-to-day implementation, monitoring and evaluation, reporting, and institutional liaison.
- 1.3 To support the SPCU in fulfilling its wide-ranging mandate, Technical Working Groups (WGs) have been established as specialised expert bodies. The WGs provide targeted technical input, identify barriers and gaps, and prepare recommendations, policies, and guidelines that facilitate AfSEM implementation. Their outputs inform the SPCU and, through it, the deliberations of the High-Level Technical Oversight Committee (HLOC) and the Ministerial Council.
- 1.4 Working Group 2 on Regulation and Market Operation (WG2) has been created to focus on the regulatory and operational foundations of the AfSEM. It supports the creation of a common AfSEM regulatory framework and market rules to ensure the effective functioning of the AfSEM. To this end, WG2 develops and promotes AfSEM policies, guidelines, and standards as instruments for achieving harmonised regulatory conditions across Member States and regions, and contributes to monitoring and evaluating progress in the AfSEM's regulatory harmonisation and market operation. While most Island States are not physically interconnected with continental grids, they are fully part of AfSEM's institutional framework. Where relevant, their specific circumstances are therefore taken into account in the design of regulatory, market, and operational frameworks.
- 1.5 These Terms of Reference set out the mandate, responsibilities, scope of work, governance structure, working methods, composition, resources, deliverables, and duration of WG2.

2. Mandate

- 2.1 WG2 on Regulation and Market Operation is mandated to provide technical expertise and evidence-based analysis to support the SPCU in the development, harmonisation, and monitoring of the enabling legal, regulatory, and market framework of the AfSEM.
- 2.2 WG2 contributes to the creation of common AfSEM regulatory frameworks and market rules, ensures their consistent application across Member States and regions, and supports the effective functioning of a transparent, efficient, and competitive continental electricity market under the AfSEM.

3. Responsibilities

In fulfilling its mandate, WG2 shall exercise the following responsibilities:

3.1 Technical Preparation and Analysis

- (1) Assess and provide recommendations on measures required to establish and maintain a coherent AfSEM legal and regulatory framework, together with consistent regional market rules and operational procedures that ensure the effective functioning of the AfSEM.

3.2 Monitoring and Evaluation (M&E)

- (1) Monitor and assess progress, challenges, and gaps in the development of harmonised regulatory frameworks and functioning regional electricity markets.
- (2) Validate, and harmonise data on regulatory practices and market operation at regional and continental levels, using agreed AfSEM M&E indicators and the digital information platform..
- (3) Contribute to the preparation of regulation and market operation M&E reports compiled by the SPCU for submission to the HLOC and other AfSEM stakeholders.

3.3 Policy and Planning Support

- (1) Provide recommendations to inform revisions of AfSEM strategic plans, action plans, and guidelines in the field of regulation and market operation, to ensure coherence and consistency in the field of regulation and market operation.

3.4 Consultation and Stakeholder Engagement

- (1) Facilitate consultations with Member States, regional power pools, utilities, regulators, and development partners on regulation and market operation.
- (2) Promote convergence of regional regulatory approaches and market practices to support AfSEM implementation.

3.5 Awareness and Communication

- (1) Support the SPCU in raising awareness and disseminating information on AfSEM development and progress in the field of regulation and market operation, including through reports, stakeholder forums, and technical briefings.

3.6 Ad Hoc Technical Support

- (1) Provide specialised technical input on regulation and market operation at the request of the SPCU, including analysis, data, or expert advice required to support AfSEM implementation, HLOC reporting, or preparation of documents for the Ministerial Council.

4. Scope of Work

WG2 shall focus on the following thematic areas in the field of regulation and market operation:

4.1 Regulatory Harmonisation

- (1) Analyse existing regional regulatory frameworks, and identify and recommend steps necessary to align them for the effective functioning of the AfSEM.
- (2) Support the development of a coherent AfSEM legal and regulatory framework that respects subsidiarity and ensures consistency across regions.

4.2 Market Rules and Design

- (1) Assess regional market rules and operational procedures, including scheduling, dispatch, balancing, and settlement.
- (2) Provide recommendations for their alignment and adaptation to enable transparent, efficient, and competitive cross-border electricity trade under the AfSEM.

4.3 Tariff and Licensing Frameworks

- (1) Review regional tariff methodologies and licensing practices and propose recommendations for harmonised approaches that facilitate market integration.

4.4 Grid Codes and System Operation Rules

- (1) Analyse regional grid codes and system operation rules and recommend steps to achieve interoperability and consistency where necessary for AfSEM market operation..

4.5 Dispute Resolution Mechanisms

- (1) Identify regional dispute resolution practices and recommend mechanisms that can support fair, transparent, and efficient resolution of cross-border electricity market disputes under the AfSEM

4.6 Data Validation

- (1) Validate national, regional, and continental-level data on regulatory practices and market operation collected by AFREC in line with AfSEM's M&E indicators.
- (2) Support the SPCU in monitoring and evaluating progress towards regulatory harmonisation and effective market operation, using AfSEM indicators and tools.

4.7 Cross-Cutting Coordination

- (1) Collaborate with other AfSEM Working Groups to ensure alignment between the fields of regulation and market operation and complementary areas, including electricity infrastructure (WG1), investment coordination (WG3), renewable energy and energy transition (WG4), and energy efficiency (WG5).
- (2) Contribute technical infrastructure inputs to SPCU reporting and submissions to the HLOC and Ministerial Council.
- (3) Where relevant, regulatory frameworks and market rules also take into account the specific circumstances of island states as part of AfSEM's institutional scope.

5. Governance Structure

5.1 Chair and Vice-Chair(s)

- (1) WG2 shall be led by a Chair elected from among its members for a term of two (2) years, renewable once.
- (2) The Chair position shall rotate among the five African regions.
- (3) One or two Vice-Chairs shall be elected to support the Chair and act on their behalf when necessary.

5.2 Functions of the Chair and Vice Chair

- (1) The Chair, in consultation with the SPCU, shall convene and preside over WG2 meetings.
- (2) The Chair shall provide strategic direction to WG2 in line with its mandate and responsibilities.
- (3) The Chair shall ensure effective coordination among members and sub-groups (See 6.6).
- (4) Represent WG2 in relevant AfSEM coordination forums when requested by the SPCU.
- (5) The Vice-Chair shall assist the Chair in these functions and assume the Chair's role as required.

5.3 Secretariat

- (1) The AUC-IED-SPCU shall act as the Secretariat of WG2.
- (2) The Secretariat shall be responsible for convening meetings, preparing and circulating agendas and documents, maintaining records, and ensuring timely communication with members.
- (3) The Secretariat shall support WG2 in preparing reports and recommendations for submission to the HLOC.

5.4 Members

- (1) Members shall be the experts formally nominated by their respective institutions as defined under the Composition section.
- (2) Members shall actively participate in meetings, contribute technical expertise, and support data collection and analysis within their institutional remit.

5.5 Advisory Members

- (1) Advisory Members, as defined under the Composition section, may participate in WG2 discussions and provide technical input.

- (2) Advisory Members shall not have voting rights and shall not count towards the quorum.

5.6 Observers and Resource Persons

- (1) WG2 may invite observers or resource persons from development partners, financial institutions, research organisations, and other relevant stakeholders to contribute technical input on specific issues.
- (2) Observers and resource persons shall not have voting rights.

6. Working Methods

6.1 Meetings

- (1) WG2 shall meet four (4) times per year, on a quarterly basis.
- (2) Meetings may be held in person or online, depending on logistical considerations and resources.
- (3) Extraordinary meetings may be convened at the request of the Chair, the SPCU, or at least one-third of the members, to address urgent issues requiring timely deliberation.

6.2 Convening and Notice

- (1) Meetings shall be convened by the Chair of WG2 in consultation with the SPCU.
- (2) Notice of regular meetings, together with a draft agenda, shall be circulated to members at least four (4) weeks in advance.
- (3) For extraordinary meetings, a minimum of seven (7) days' notice shall be given, unless urgency requires shorter notice with the agreement of members.

6.3 Quorum

- (1) A quorum shall be constituted when at least one-third of all expert group members, as defined under Section 7.2 (Composition), are present, provided that the quorum includes representation from at least two (2) members of Expert Group 1 (African Union Institutions), two (2) members from Expert Group 2 (Regional Regulatory Authorities) and two (2) members of Expert Group 3 (Regional Power Pools).
- (2) Advisory Members (Expert Group 7) shall not count towards the quorum.

6.4 Decision-Making

- (1) Where a quorum, as defined under Section 6.3, is established, WG2 shall seek to adopt recommendations by consensus.
- (2) Where consensus cannot be achieved, a simple majority of expert group members present shall be sufficient for adoption.
- (3) If neither consensus nor a simple majority can be reached, the Chairperson shall cast the decisive vote.
- (4) Advisory Members (Expert Group 7), observers and resource persons may participate in discussions but shall not have voting rights.

6.5 Reporting

- (1) The Chair, supported by the SPCU, shall ensure that minutes and agreed recommendations of each meeting are recorded and circulated within two (2) weeks.
- (2) WG2 shall report its findings, recommendations, and technical inputs to the SPCU, which will consolidate them for submission to the HLOC.

6.6 Sub-Groups and Task Teams

- (1) WG2 may establish thematic sub-groups or ad hoc task teams to address specific technical issues.
- (2) Sub-groups and task teams shall report back to WG2 for consolidation and adoption of recommendations.

6.8 Cross-WG Collaboration Mechanism

- (1) Each WG shall nominate a **Liaison Officer** to interface with other **WGs**, ensuring coherence across technical, regulatory, financial, and sustainability dimensions. A semi-annual AfSEM WG Coordination Forum will be convened to review progress, align recommendations, and resolve cross-cutting issues.

7. Composition

7.1 General Principle

WG2 shall be comprised of technical experts nominated by AfSEM stakeholders with recognised competence in electricity infrastructure planning, development, and regulation. Members shall be appointed by their respective institutions and serve in their official capacity.

7.2 Institutional Representation

WG2 shall include one (1) expert from each of the following institutions and stakeholder groups:

- (1) Expert Group 1 : African Union Institutions / AfSEM Main Implementing Partners
 - African Union Commission (AUC) – Infrastructure and Energy Department (IED)
 - African Energy Commission (AFREC)
 - African Electrotechnical Standardization Commission (AFSEC)
 - AfSEM Strategic Planning and Coordination Unit (SPCU)
 - African Union Development Agency (AUDA-NEPAD)
 - African Continental Free Trade Area (AfCFTA)
 - African Development Bank (AfDB)
 - United Nations Economic Commission for Africa (UN ECA)
- (2) Expert Group 2: Regional Regulatory Authorities
 - ECOWAS Regional Electricity Regulatory Authority (ERERA) – West Africa
 - The Southern Africa Development Community Regional Energy Regulators Authority (SARERA) when operationalized, or until this operationalization, the Regional Energy Regulators Association of Southern Africa (RERA) – Southern Africa
 - Independent Regulatory Board (IRB) – East Africa
 - Commission Régionale de Régulation de l'Électricité de l'Afrique centrale (CORREAC) when operationalized, or until operationalization, a regional regulatory representative named by the ECCAS - Central Africa
 - Mediterranean Energy Regulators Association (MEDREG) – representing Northern Africa regulators²
- (3) Expert Group 3: Regional Power Pools
 - West African Power Pool (WAPP)
 - Southern African Power Pool (SAPP)
 - Eastern Africa Power Pool (EAPP)
 - Central Africa Power Pool (CAPP)
 - Comité Maghrébin de l'Électricité (COMELEC) – representing Northern Africa utilities
- (4) Expert Group 4: Regional Economic Communities (RECs)
 - Arab Maghreb Union (UMA)
 - Common Market for Eastern and Southern Africa (COMESA)

² Note: Northern Africa does not yet have a dedicated regional regulatory association. MEDREG, which includes Northern African national regulators, is recognised as the most appropriate platform to represent the region until a Northern African regional structure is established.

- Community of Sahel-Saharan States (CEN-SAD)
 - East African Community (EAC)
 - Economic Community of Central African States (ECCAS)
 - Economic Community of West African States (ECOWAS)
 - Intergovernmental Authority on Development (IGAD)
 - Southern African Development Community (SADC)
- (5) Expert Group 5 : Regional Energy Efficiency Centers
- East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE)
 - SADC Centre for Renewable Energy and Efficiency (SACREEE)
 - Centre for Renewable Energy and Energy Efficiency for Central Africa (CEREEAC)
 - ECOWAS Centre for Renewable Energy and Efficiency (ECREEE)
 - Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)
- (6) Expert Group 6: Other Continental, regional and Pan-African Stakeholders
- African School of Regulation (ASR)
 - Association of Power Utilities of Africa (APUA)
 - African Forum for Utility Regulators (AFUR)
 - Energy Regulators Association of East Africa (EREA) – East Africa
- (7) Expert Group 7: Advisory Members
- European Union (EU)
 - European Investment Bank (EIB)
 - The World Bank (WB)
 - Agence Française de Développement (AFD)
 - Kreditanstalt für Wiederaufbau (KfW)
 - Gesellschaft fuer Internationale Zusammenarbeit (GIZ)
 - International Energy Agency (IEA)
 - International Renewable Energy Agency (IRENA)
 - United Nations Development Programme (UNDP)
 - United Nations Industrial Development Organisation (UNIDO)
 - United Nations Environment Programme (UNEP)

Advisory Members shall participate in the work of WG2 in an advisory capacity and shall not have voting rights.

7.3 Additional Experts

Subject to approval by the SPCU, additional experts from Member States, development partners, financial institutions, or specialised technical organisations may be invited to participate in WG2 as observers or resource persons, without voting rights.

7.4 Appointment and Tenure

Experts shall be nominated by their parent institutions for a renewable term of three (3) years, ensuring continuity while allowing for rotation as necessary. Each institution shall notify the SPCU in writing of its appointed representative.

8. Deliverables / Outputs

WG2 shall, in accordance with its mandate and responsibilities, produce the following deliverables and outputs in support of AfSEM implementation:

8.1 Monitoring and Evaluation (M&E) Contributions

- (1) Provide periodic inputs for SPCU-led M&E reports on regulation and market operation, including analysis of progress, identification of gaps, and the preparation of an annual update on regulatory and market integration.

8.2 Technical Reports and Recommendations

- (1) Thematic reports on regulatory harmonisation, market rules, tariff and licensing frameworks, grid codes, and system operation rules, to inform SPCU submissions to the HLOC.
- (2) Recommendations on regulation and market operation aspects of AfSEM strategies, action plans, and operational guidelines.

8.3 Consultation Outputs

- (1) Records and summaries of stakeholder consultations with Member States, regional power pools, regulators, and utilities on regulation and market operation.
- (2) Consolidated feedback and recommendations on regulation and market regulation reflecting regional and continental perspectives.

8.4 Awareness and Communication Tools

- (1) Contributions to AfSEM awareness-raising materials, highlighting progress and challenges in the field of regulation and market operation.
- (2) Technical briefings and knowledge products for dissemination through the AfSEM Electricity Forum and other stakeholder platforms.

8.5 Ad Hoc Deliverables

- (1) Additional studies, analyses, or recommendations requested by the SPCU in the field of regulation and market operation.

9. Resources and Support

9.1 Secretariat Support

- (1) The SPCU shall provide secretariat services to WG2.
- (2) The Secretariat shall coordinate meetings, prepare and circulate documents, maintain records, and support the preparation of WG2 reports and recommendations.

9.2 Financial Resources

- (1) WG2 activities shall be financed through the AfSEM budget as approved by the African Union, supplemented by contributions from development partners in line with AU financial regulations and procedures.
- (2) Costs of participation (e.g. travel and accommodation) shall generally be borne by the nominating institutions, unless specific support is provided under AfSEM programmes or partner-funded initiatives.
- (3) Financial Coordination & Cost Control: To strengthen sustainability and predictability of financing for the Working Groups, the SPCU shall establish an AfSEM Financing Coordination Mechanism (AFCM). This mechanism shall:
 - Align WG activities with multi-year budget envelopes approved by the AUC and development partners.
 - Maintain a rolling pipeline of priority technical studies and capacity building actions, pre-screened for funding eligibility by key cooperation partners.
 - Track unit cost benchmarks (e.g., cost per technical study, per data validation exercise) to ensure cost-efficiency and transparent resource allocation.

9.3 Technical Resources

- (1) WG2 shall have access to AfSEM's digital information platform for data collection and monitoring, and to modelling tools developed under the African Continental Power Systems Masterplan (CMP).
- (2) Additional technical studies or tools required for WG2 tasks may be commissioned by the SPCU, subject to availability of resources.

9.4 In-Kind Contributions

- (1) Member institutions shall provide in-kind support through the time and expertise of their nominated representatives, sharing of relevant data, and hosting of WG2 meetings or workshops when feasible.

10. Duration and Review

10.1 Duration

- (1) WG2 on Regulation and Market Operation is established as a standing technical body under the AfSEM Governance Structure.
- (2) It shall remain in operation for the duration of AfSEM's implementation, unless otherwise decided by the Ministerial Council (Specialised Technical Committee on Transport and Energy – STC-T&E).

10.2 Review of ToR

- (3) These Terms of Reference shall be reviewed every three (3) years, or earlier if requested by the SPCU or the HLOC.
- (4) The review shall assess the relevance, effectiveness, and efficiency of WG2 in fulfilling its mandate, responsibilities, and outputs.

10.3 Amendments

- (1) Amendments to these Terms of Reference may be proposed by WG2 members or the SPCU.
- (2) Proposed amendments shall be reviewed by the SPCU and submitted to the HLOC for consideration.
- (3) Final approval of amendments shall rest with the Ministerial Council (STC-T&E).

3 Working Group 3 Investments Coordination

Next page

The Specialised Technical Committee on Transport and Energy (STC-T&E), acting as the Ministerial Council for the African Single Electricity Market (AfSEM), has in its [session/meeting reference, date] adopted the following Terms of Reference for Working Group 3 on Investment Coordination (WG3) under the AfSEM Governance Framework:

Terms of Reference

African Single Electricity Market (AfSEM) Working Group 3: Investment Coordination

1. Background

- 1.1 The African Single Electricity Market (AfSEM) is a flagship initiative of the African Union, adopted by the Assembly of Heads of State and Government in February 2021. AfSEM aims to establish a fully integrated, harmonized, and competitive continental electricity market that will enable efficient cross-border electricity trade, harmonize regulatory and technical standards, and mobilise investment to achieve universal access to affordable, reliable, and sustainable electricity in line with Agenda 2063.
- 1.2 The AfSEM Governance Structure provides for a set of institutional mechanisms to coordinate and oversee implementation. At its centre, the Strategic Planning and Coordination Unit (SPCU), housed within the African Union Commission's Infrastructure and Energy Department (IED), acts as the technical secretariat and is responsible for day-to-day implementation, monitoring and evaluation, reporting, and institutional liaison.
- 1.3 To support the SPCU in fulfilling its wide-ranging mandate, Technical Working Groups (WGs) have been established as specialised expert bodies. The WGs provide targeted technical input, identify barriers and gaps, and prepare recommendations, policies, and guidelines that facilitate AfSEM implementation. Their outputs inform the SPCU and, through it, the deliberations of the High-Level Technical Oversight Committee (HLOC) and the Ministerial Council.
- 1.4 Working Group 3 on Investment Coordination (WG3) has been created to focus on the investment and financing dimension of the AfSEM. It supports the mobilisation and coordination of investments required to complete the AfSEM, including the development of electricity infrastructure and the facilitation of regional power trade. To this end, WG3 provides recommendations on AfSEM policies, guidelines, and roadmaps to enhance investment coordination and resource mobilisation, and contributes to monitoring and evaluating investment needs, barriers, and progress in the field of electricity infrastructure financing under the AfSEM, consistent with the CMP. While most Island States are not physically interconnected with continental grids, they are fully part of AfSEM's institutional framework. Where relevant, their specific circumstances are therefore taken into account in investment planning, risk mitigation, and financing strategies.
- 1.5 These Terms of Reference set out the mandate, responsibilities, scope of work, governance structure, working methods, composition, resources, deliverables, and duration of WG3.

2. Mandate

- 2.1 WG3 on Investment Coordination is mandated to provide technical expertise and evidence-based analysis to support the SPCU in the identification of investment needs, the monitoring of financing flows, and the coordination of resource mobilisation for the implementation of the AfSEM, including the financing and implementation of priority projects identified under the CMP.

2.2 WG3 contributes to the development of common AfSEM policies, guidelines, and roadmaps for electricity infrastructure investment and regional power trade, ensures coherence in investment coordination across Member States and regions, and supports the mobilisation of financial resources necessary to achieve the effective implementation of the AfSEM, in alignment with the CMP.

3. Responsibilities

In fulfilling its mandate, WG3 shall exercise the following responsibilities in the field of investment coordination:

3.1 Technical Preparation and Analysis

- (1) Assess and provide recommendations on measures required to:
 - Identify and advise the bankability of priority interconnection and renewable energy projects
 - Map regulatory and sovereign risk barriers and propose harmonized risk allocation frameworks (e.g., standardized PPAs, cross-border tariff methodologies, dispute resolution protocols).
- (2) Facilitate dialogue with institutional investors (pension funds, sovereign wealth funds) to mobilize long-term capital and green finance instruments, taking into account CMP priority projects and investment requirements.

3.2 Monitoring and Evaluation (M&E)

- (1) Monitor and assess progress, challenges, and gaps in electricity infrastructure investment for the AfSEM, including project pipelines, financing flows, and investment readiness, consistent with the CMP.
- (2) Validate, and harmonise data on electricity infrastructure investments at regional and continental levels, using agreed AfSEM M&E indicators and the digital information platform.
- (3) Provide recommendations and validated inputs to the SPCU for the preparation of investment-related M&E reports submitted to the HLOC and other AfSEM stakeholders.

3.3 Policy and Planning Support

- (1) Provide recommendations to inform revisions of AfSEM strategic plans, action plans, and guidelines on investment coordination, ensuring alignment of continental priorities with regional project pipelines and available financing mechanisms, consistent with the CMP.

3.4 Consultation and Stakeholder Engagement

- (1) Facilitate consultations with Member States, regional power pools, utilities, regulators, and development partners, and financial institutions on investment coordination.
- (2) Promote co-ordination of regional and continental investment initiatives and financing mechanisms to support AfSEM implementation and mobilisation of resources.

3.5 Awareness and Communication

- (1) Support the SPCU in raising awareness and disseminating information on AfSEM development and progress in the field of investment coordination, including through reports, stakeholder forums, and technical briefings.

3.6 Ad Hoc Technical Support

- (1) Provide specialised technical input on electricity infrastructure investments at the request of the SPCU, including analysis, data, or expert advice required to support AfSEM implementation, HLOC reporting, or preparation of documents for the Ministerial Council.

4. Scope of Work

WG3 shall focus on the following thematic areas in the field of investment coordination:

4.1 Investment Needs and Barriers

- (1) Analyse investment requirements for electricity infrastructure needed to implement the AfSEM, consistent with the CMP.
- (2) Identify barriers to investment and financing, for AfSEM-related projects, including regulatory, institutional, and financial constraints, and recommend measures to address them, in line with the CMP.

4.2 Financing Frameworks and Instruments

- (1) Assess regional and continental financing frameworks and instruments relevant to electricity infrastructure investment under the AfSEM, consistent with the CMP.
- (2) Provide recommendations on mechanisms to mobilise and coordinate resources for the AfSEM, including public finance, private sector participation, development finance institutions, and blended finance approaches, in line with the CMP.

4.3 Project Pipeline and Prioritisation

- (1) Review regional and continental electricity infrastructure project pipelines to identify priority investments aligned with the AfSEM's objectives and implementation needs, as identified in the CMP.
- (2) Provide recommendations to improve project preparation, bankability, and alignment with AfSEM strategic priorities and investment frameworks, inline with the CMP.

4.4 Data Validation

- (1) Validate data on electricity infrastructure investments at regional and continental levels collected by AFREC in line with AfSEM's M&E indicators and using the digital information platform.
- (2) Support the SPCU in monitoring and evaluating progress in investment mobilisation and coordination, providing validated inputs for reporting

4.5 Resource Mobilisation and Partnerships

- (1) Identify opportunities for mobilising financial resources from Member States, regional institutions, development partners, and private investors to support AfSEM implementation, in line with the CMP.
- (2) Promote coordination of financing efforts and partnerships to avoid duplication, optimise synergies, and ensure coherence with AfSEM investment priorities, consistent with the CMP.

4.6 Cross-Cutting Coordination

- (1) Collaborate with other AfSEM Working Groups to ensure alignment between investment coordination and complementary areas, including electricity infrastructure (WG1), regulation and market operation (WG2), renewable energy and energy transition (WG4), and energy efficiency (WG5).
- (2) Contribute investment-related inputs to SPCU reporting and submissions to the HLOC and Ministerial Council, in support of AfSEM implementation.
- (3) Where relevant investment frameworks developed under WG3 also recognise the distinct financing needs and opportunities of island states within AfSEM's institutional framework.

5. Governance Structure

5.1 Chair and Vice-Chair(s)

- (1) WG3 shall be led by a Chair elected from among its members for a term of two (2) years, renewable once.
- (2) The Chair position shall rotate among the five African regions.
- (3) One or two Vice-Chairs shall be elected to support the Chair and act on their behalf when necessary.

5.2 Functions of the Chair and Vice Chair

- (1) The Chair, in consultation with the SPCU, shall convene and preside over WG3 meetings.
- (2) The Chair shall provide strategic direction to WG3 in line with its mandate and responsibilities.
- (3) The Chair shall ensure effective coordination among members and sub-groups (See 6.6).
- (4) Represent WG3 in relevant AfSEM coordination forums when requested by the SPCU.
- (5) The Vice-Chair shall assist the Chair in these functions and assume the Chair's role as required.

5.3 Secretariat

- (1) The AUC-IED-SPCU in collaboration with AfDB shall act as the Secretariat of WG3.
- (2) The Secretariat shall be responsible for convening meetings, preparing and circulating agendas and documents, maintaining records, and ensuring timely communication with members.
- (3) The Secretariat shall support WG3 in preparing reports and recommendations for submission to the HLOC.

5.4 Members

- (1) Members shall be the experts formally nominated by their respective institutions as defined under the Composition section.
- (2) Members shall actively participate in meetings, contribute technical expertise, and support data collection and analysis within their institutional remit.

5.5 Advisory Members

- (1) Advisory Members, as defined under the Composition section, may participate in WG3 discussions and provide technical input.
- (2) Advisory Members shall not have voting rights and shall not count towards the quorum.

5.6 Observers and Resource Persons

- (1) WG3 may invite observers or resource persons from development partners, financial institutions, research organisations, and other relevant stakeholders to contribute technical input on specific issues.
- (2) Observers and resource persons shall not have voting rights.

6. Working Methods

6.1 Meetings

- (1) WG3 shall meet four (4) times per year, on a quarterly basis.
- (2) Meetings may be held in person or online, depending on logistical considerations and resources.
- (3) Extraordinary meetings may be convened at the request of the Chair, the SPCU, or at least one-third of the members, to address urgent issues requiring timely deliberation.

6.2 Convening and Notice

- (1) Meetings shall be convened by the Chair of WG3 in consultation with the SPCU.
- (2) Notice of regular meetings, together with a draft agenda, shall be circulated to members at least four (4) weeks in advance.
- (3) For extraordinary meetings, a minimum of seven (7) days' notice shall be given, unless urgency requires shorter notice with the agreement of members.

6.3 Quorum

- (1) A quorum shall be constituted when at least one-third of all expert group members, as defined under Section 7.2 (Composition), are present, provided that the quorum includes representation from at least

one (1) member from Expert Group 1 (African Union Institutions), one (1) member from Expert Group 2 (Regional Economic Communities (RECs)), one (1) member from Expert Group 3 (Continental and Regional Financial Institutions), and one (1) member of Expert Group 4 (Regional Power Pools).

(2) Advisory Members (Expert Group 7) shall not count towards the quorum.

6.4 Decision-Making

(1) Where a quorum, as defined under Section 6.3, is established, WG3 shall seek to adopt recommendations by consensus.

(2) Where consensus cannot be achieved, a simple majority of expert group members present shall be sufficient for adoption.

(3) If neither consensus nor a simple majority can be reached, the Chairperson shall cast the decisive vote.

(4) Advisory Members (Expert Group 7), observers and resource persons may participate in discussions but shall not have voting rights.

6.5 Reporting

(1) The Chair, supported by the SPCU, shall ensure that minutes and agreed recommendations of each meeting are recorded and circulated within two (2) weeks.

(2) WG3 shall report its findings, recommendations, and technical inputs to the SPCU, which will consolidate them for submission to the HLOC.

6.6 Sub-Groups and Task Teams

(1) WG3 may establish thematic sub-groups or ad hoc task teams to address specific technical issues.

(2) Sub-groups and task teams shall report back to WG3 for consolidation and adoption of recommendations.

6.9 Cross-WG Collaboration Mechanism

(1) Each WG shall nominate a **Liaison Officer** to interface with other **WGs**, ensuring coherence across technical, regulatory, financial, and sustainability dimensions. A semi-annual AfSEM WG Coordination Forum will be convened to review progress, align recommendations, and resolve cross-cutting issues.

7. Composition

7.1 General Principle

WG3 shall be comprised of technical experts nominated by AfSEM stakeholders with recognised competence in electricity infrastructure investment, financing, and coordination. Members shall be formally appointed by their respective institutions and shall serve in their official capacity.

7.2 Institutional Representation

WG3 shall include one (1) expert from each of the following institutions and stakeholder groups:

- (1) Expert Group 1 : African Union Institutions / AfSEM Main Implementing Partners
 - African Union Commission (AUC) – Infrastructure and Energy Department (IED)
 - African Energy Commission (AFREC)
 - African Electrotechnical Standardization Commission (AFSEC)
 - AfSEM Strategic Planning and Coordination Unit (SPCU)
 - African Union Development Agency (AUDA-NEPAD)
 - African Continental Free Trade Area (AfCFTA)

- African Development Bank (AfDB)
 - United Nations Economic Commission for Africa (UN ECA)
- (2) Expert Group 2: Regional Economic Communities (RECs)
- Arab Maghreb Union (UMA)
 - Common Market for Eastern and Southern Africa (COMESA)
 - Community of Sahel-Saharan States (CEN-SAD)
 - East African Community (EAC)
 - Economic Community of Central African States (ECCAS)
 - Economic Community of West African States (ECOWAS)
 - Intergovernmental Authority on Development (IGAD)
 - Southern African Development Community (SADC)
- (3) Expert Group 3: Continental and regional Development and Public Financial Institutions:
- African Development Bank (AfDB)
 - African Export-Import Bank (AfrExim)
 - Africa Finance Corporation (AFC)
 - African Investment Bank (AIB)
 - West African Development Bank (BOAD)
 - Central African States Development Bank (BDEAC)
 - Development Bank of Southern Africa (DBSA)
 - East African Development Bank (EADB)
 - Maghreb Investment and Foreign Trade Bank (BMICE)
- (4) Expert Group 4: Regional Power Pools
- West African Power Pool (WAPP)
 - Southern African Power Pool (SAPP)
 - Eastern Africa Power Pool (EAPP)
 - Central Africa Power Pool (CAPP)
 - Comité Maghrébin de l'Électricité (COMELEC) – representing Northern Africa utilities
- (5) Expert Group 5: Regional Regulatory Authorities
- ECOWAS Regional Electricity Regulatory Authority (ERERA) – West Africa
 - The Southern Africa Development Community Regional Energy Regulators Authority (SARERA) when operationalized, or until this operationalization, the Regional Energy Regulators Association of Southern Africa (RERA) – Southern Africa
 - Independent Regulatory Board (IRB) – East Africa
 - Commission Régionale de Régulation de l'Électricité de l'Afrique centrale (CORREAC) when operationalized, or until operationalization, a regional regulatory representative named by the ECCAS - Central Africa

- Mediterranean Energy Regulators Association (MEDREG) – representing Northern Africa regulators³
- (6) Expert Group 6 : Regional Energy Efficiency Centers
- East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE)
 - SADC Centre for Renewable Energy and Efficiency (SACREEE)
 - Centre for Renewable Energy and Energy Efficiency for Central Africa (CEREEAC)
 - ECOWAS Centre for Renewable Energy and Efficiency (ECREEE)
 - Regional Centre for Renewable Energy and Energy Efficiency (RCREEEE)
- (7) Expert Group 7: Advisory Members
- European Union (EU)
 - European Investment Bank (EIB)
 - The World Bank (WB)
 - Agence Française de Développement (AFD)
 - Kreditanstalt für Wiederaufbau (KfW)
 - Gesellschaft für Internationale Zusammenarbeit (GIZ)
 - International Energy Agency (IEA)
 - International Renewable Energy Agency (IRENA)
 - United Nations Development Programme (UNDP)
 - United Nations Industrial Development Organisation (UNIDO)
 - United Nations Environment Programme (UNEP)

Advisory Members shall participate in the work of WG3 in an advisory capacity and shall not have voting rights.

7.3 Additional Experts

Subject to approval by the SPCU, additional experts from Member States, development partners, financial institutions, or specialised technical organisations may be invited to participate in WG3 as observers or resource persons, without voting rights.

7.4 Appointment and Tenure

Experts shall be nominated by their parent institutions for a renewable term of three (3) years, ensuring continuity while allowing for rotation as necessary. Each institution shall notify the SPCU in writing of its appointed representative.

8. Deliverables / Outputs

WG3 shall, in accordance with its mandate and responsibilities, produce the following deliverables and outputs in support of AfSEM implementation:

8.1 Monitoring and Evaluation (M&E) Contributions

³ Note: Northern Africa does not yet have a dedicated regional regulatory association. MEDREG, which includes Northern African national regulators, is recognised as the most appropriate platform to represent the region until a Northern African regional structure is established.

- (1) Provide periodic inputs for SPCU-led AfSEM M&E reports on investment coordination, including analysis of investment needs, financing flows, barriers, progress achieved, and the preparation of an annual update on electricity infrastructure investment under the AfSEM, in line with the CMP.

8.2 Technical Reports and Recommendations

- (1) Thematic reports on AfSEM investment needs, financing frameworks, project pipelines, and barriers to investment, with particular attention to the CMP pipeline of priority projects, to inform SPCU submissions to the HLOC.
- (2) Recommendations on investment coordination aspects of AfSEM strategies, action plans, and operational guidelines, consistent with the CMP.

8.3 Consultation Outputs

- (1) Records and summaries of stakeholder consultations with Member States, RECs, regional power pools, financial institutions, and development partners on AfSEM investment coordination.
- (2) Consolidated feedback and recommendations on AfSEM investment priorities and financing mechanisms, reflecting regional and continental perspectives.

8.4 Awareness and Communication Tools

- (1) Contributions to AfSEM awareness-raising materials, highlighting progress and challenges in the field of electricity infrastructure investment and financing, in line with the CMP.
- (2) Technical briefings and knowledge products on AfSEM investment coordination for dissemination through the AfSEM Electricity Forum and other stakeholder platforms.

8.5 Ad Hoc Deliverables

- (1) Additional studies, analyses, or recommendations requested by the SPCU in the field of AfSEM investment coordination, financing mechanisms, or electricity infrastructure investment required for the completion of the AfSEM, including linkages with the CMP.

9. Resources and Support

9.1 Secretariat Support

- (1) The SPCU shall provide secretariat services to WG3.
- (2) The Secretariat shall coordinate meetings, prepare and circulate documents, maintain records, and support the preparation of WG3 reports and recommendations.

9.2 Financial Resources

- (1) WG3 activities shall be financed through the AfSEM budget as approved by the African Union, supplemented by contributions from development partners in line with AU financial regulations and procedures.
- (2) Costs of participation (e.g. travel and accommodation) shall generally be borne by the nominating institutions, unless specific support is provided under AfSEM programmes or partner-funded initiatives.
- (3) Financial Coordination & Cost Control: To strengthen sustainability and predictability of financing for the Working Groups, the SPCU shall establish an AfSEM Financing Coordination Mechanism (AFCM). This mechanism shall:
 - Align WG activities with multi-year budget envelopes approved by the AUC and development partners.
 - Maintain a rolling pipeline of priority technical studies and capacity building actions, pre-screened for funding eligibility by key cooperation partners.

- Track unit cost benchmarks (e.g., cost per technical study, per data validation exercise) to ensure cost-efficiency and transparent resource allocation.

9.3 Technical Resources

- (1) WG3 shall have access to AfSEM's digital information platform for data collection and monitoring, and to modelling tools developed under the African Continental Power Systems Masterplan (CMP).
- (2) Additional technical studies or tools required for WG3 tasks may be commissioned by the SPCU, subject to availability of resources.

9.4 In-Kind Contributions

- (1) Member institutions shall provide in-kind support through the time and expertise of their nominated representatives, sharing of relevant data, and hosting of WG3 meetings or workshops when feasible.

10. Duration and Review

10.1 Duration

- (1) WG3 on Investment Coordination is established as a standing technical body under the AfSEM Governance Structure.
- (2) It shall remain in operation for the duration of AfSEM's implementation, unless otherwise decided by the Ministerial Council (Specialised Technical Committee on Transport and Energy – STC-T&E).

10.2 Review of ToR

- (1) These Terms of Reference shall be reviewed every three (3) years, or earlier if requested by the SPCU or the HLOC.
- (2) The review shall assess the relevance, effectiveness, and efficiency of WG3 in fulfilling its mandate, responsibilities, and outputs.

10.3 Amendments

- (1) Amendments to these Terms of Reference may be proposed by WG3 members or the SPCU.
- (2) Proposed amendments shall be reviewed by the SPCU and submitted to the HLOC for consideration.
- (3) Final approval of amendments shall rest with the Ministerial Council (STC-T&E).

4 Working Group 4 Renewable Energy and Energy Transition

Next page

The Specialised Technical Committee on Transport and Energy (STC-T&E), acting as the Ministerial Council for the African Single Electricity Market (AfSEM), has in its [session/meeting reference, date] adopted the following Terms of Reference for Working Group 4 on Renewable Energy and Energy Transition (WG4) under the AfSEM Governance Framework:

Terms of Reference

African Single Electricity Market (AfSEM)

Working Group 4: Renewable Energy and Energy Transition

1. Background

- 1.1 The African Single Electricity Market (AfSEM) is a flagship initiative of the African Union, adopted by the Assembly of Heads of State and Government in February 2021. AfSEM aims to establish a fully integrated, harmonized, and competitive continental electricity market that will enable efficient cross-border electricity trade, harmonize regulatory and technical standards, and mobilise investment to achieve universal access to affordable, reliable, and sustainable electricity in line with Agenda 2063.
- 1.2 The AfSEM Governance Structure provides for a set of institutional mechanisms to coordinate and oversee implementation. At its centre, the Strategic Planning and Coordination Unit (SPCU), housed within the African Union Commission's Infrastructure and Energy Department (IED), acts as the technical secretariat and is responsible for day-to-day implementation, monitoring and evaluation, reporting, and institutional liaison.
- 1.3 To support the SPCU in fulfilling its wide-ranging mandate, Technical Working Groups (WGs) have been established as specialised expert bodies. The WGs provide targeted technical input, identify barriers and gaps, and prepare recommendations, policies, and guidelines that facilitate AfSEM implementation. Their outputs inform the SPCU and, through it, the deliberations of the High-Level Technical Oversight Committee (HLOC) and the Ministerial Council.
- 1.4 Working Group 4 on Renewable Energy and Energy Transition (WG4) has been created to focus on the promotion, coordination, and integration of renewable energy and the advancement of energy transition measures within the AfSEM. It supports the development of common AfSEM policies, guidelines, and roadmaps that enable the large-scale deployment of renewable energy technologies across Member States and regions, including through IPPs, off-grid solutions, manufacturing, and regional trading. At the same time, it mainstreams climate considerations and energy transition objectives into AfSEM strategies and planning to ensure that renewable energy expansion supports long-term sustainability and resilience. To this end, WG4 provides recommendations on AfSEM strategies and action plans, contributes to monitoring and evaluating progress and gaps in renewable energy and energy transition, and supports awareness-raising and stakeholder engagement to ensure alignment with AfSEM policies and objectives and the AU Climate Change Strategy. While most Island States are not physically interconnected with continental grids, they are fully part of AfSEM's institutional framework. Where relevant, their specific circumstances are therefore taken into account in renewable energy deployment, integration strategies, and energy transition planning.
- 1.5 These Terms of Reference set out the mandate, responsibilities, scope of work, governance structure, working methods, composition, resources, deliverables, and duration of WG4.

2. Mandate

- 2.1 WG4 is mandated to provide technical expertise and evidence-based analysis to support the SPCU in monitoring progress, identifying barriers, and assessing opportunities for the deployment of renewable energy and the advancement of energy transition measures within the AfSEM, including IPPs, off-grid solutions, manufacturing, and regional trading, while integrating climate considerations and energy transition objectives into AfSEM planning and implementation.
- 2.2 WG4 contributes to the development of common AfSEM policies, guidelines, and roadmaps for renewable energy deployment and energy transition, promotes coherence of renewable-energy measures across Member States and regions, and supports the creation of enabling conditions for renewable energy deployment and energy transition pathways necessary to achieve the effective implementation of the AfSEM.

3. Responsibilities

In fulfilling its mandate, In fulfilling its mandate, WG4 shall exercise the following responsibilities in the field of renewable energy and energy transition:

3.1 Technical Preparation and Analysis

- (1) Assess and provide recommendations on measures required to establish and maintain coherent AfSEM frameworks, policies, and instruments that enable renewable energy and energy transition deployment, including IPPs, energy storage, off-grid solutions, manufacturing, and trading.
- (2) Mainstream climate considerations and energy transition objectives into AfSEM strategies and planning to ensure that renewable energy deployment supports long-term sustainability and resilience.

3.2 Renewable Energy Deployment and IPPs

- (1) Provide recommendations on the design and implementation of enabling conditions for renewable energy deployment across Member States and regions, with particular attention to Independent Power Producer (IPP) frameworks.
- (2) Promote best practices and model instruments for renewable energy IPPs, including standardised Power Purchase Agreements, procurement processes, and risk mitigation instruments.

3.3 Renewable Energy Integration and Storage

- (1) Provide recommendations on integrating renewable energy into AfSEM power systems, including issues of variability, predictability, flexibility, system balancing, and the role of energy storage.
- (2) Support the development of approaches that ensure secure, reliable, and sustainable AfSEM market operation with increasing shares of renewable energy as part of the transition to a sustainable continental power system.

3.4 Off-Grid Renewable Energy Development

- (1) Facilitate analysis and provide recommendations to strengthen enabling conditions, financing mechanisms, and regulatory frameworks for off-grid renewable energy solutions such as solar home systems, mini-grids, and smart-grid applications.

3.5 Renewable Energy Manufacturing and Trading

- (1) Provide recommendations to support the growth of Africa's renewable energy manufacturing capacity, including industrial policies, skills development, and value-chain integration.
- (2) Propose measures to strengthen the enabling conditions for renewable energy trade within the AfSEM, reduce barriers, and promote competitive markets in alignment with AfCFTA.

3.6 Monitoring and Evaluation (M&E)

- (1) Monitor and assess progress, challenges, and gaps in the deployment of renewable energy and the advancement of energy transition objectives under the AfSEM, including energy storage solutions.
- (2) Validate, and harmonise data on renewable energy and energy transition measures at regional and continental levels, in line with AfSEM's M&E indicators and using the digital information platform.
- (3) Provide recommendations and validated inputs to the SPCU for the preparation of renewable energy and energy transition M&E reports submitted to the HLOC and other AfSEM stakeholders.

3.7 Policy and Planning Support

- (1) Provide recommendations to inform revisions of AfSEM strategic plans, action plans, and guidelines in the field of renewable energy and energy transition, ensuring coherence across Member States and regions and consistency with AfSEM policies and objectives, and recognising the importance of energy storage in enabling renewable energy deployment.

3.8 Consultation and Stakeholder Engagement

- (1) Facilitate consultations with Member States, RECs, regional power pools, regulators, development partners, renewable energy industry stakeholders, and other relevant stakeholders on renewable energy and energy transition under the AfSEM.
- (2) Promote coordination of regional and continental initiatives to advance renewable energy deployment and energy transition measures in support of AfSEM implementation.

3.9 Awareness and Communication

- (1) Support the SPCU in raising awareness and disseminating information on AfSEM development and progress in the field of renewable energy and energy transition, including through reports, stakeholder forums, and technical briefings.

3.10 Ad Hoc Technical Support

- (1) Provide specialised technical input on renewable energy and energy transition at the request of the SPCU, including analysis, data, or expert advice required to support AfSEM implementation, HLOC reporting, or preparation of documents for the Ministerial Council.

4. Scope of Work

WG4 shall focus on the following thematic areas in the field of renewable energy and energy transition:

4.1 Renewable Energy and Energy Transition Deployment and Barriers

- (1) Analyse the deployment levels, trends, and requirements of renewable energy and energy transition measures at regional and continental, and where relevant, island state levels to support the effective functioning of the AfSEM.
- (2) Identify regulatory, technical, financial, and institutional barriers to renewable energy and energy transition pathways, and recommend measures to address them.

4.2 Enabling Frameworks and Instruments

- (1) Assess regional and continental frameworks, policies, and instruments relevant to renewable energy and the energy transition under the AfSEM.
- (2) Provide recommendations for an AfSEM framework that establishes common enabling conditions for renewable energy deployment and energy transition strategies, integrates climate considerations into planning, while respecting subsidiarity and regional diversity.

4.3 Renewable Energy IPPs

- (1) Assess existing policies, regulatory frameworks, and achievements related to the deployment of renewable energy Independent Power Producers (IPPs) at national, regional, and continental levels under the AfSEM.
- (2) Provide recommendations for harmonising and strengthening frameworks that enable IPP deployment, including standardised Power Purchase Agreements (PPAs), transparent procurement processes, risk mitigation instruments, and access to regional markets.
- (3) Promote best practices and model instruments for facilitating renewable energy IPPs, ensuring alignment with AfSEM objectives and coherence with regional and continental investment frameworks

4.4 Renewable Energy Integration and Storage

- (1) Review approaches to integrating renewable energy into electricity systems under the AfSEM, including variability, predictability, flexibility, balancing, and the role of energy storage.
- (2) Provide recommendations to strengthen system readiness and ensure secure, reliable, and sustainable AfSEM market operation with increasing shares of renewable energy as part of a broader transition towards sustainable power systems.

4.5 Off-grid Renewable Energy Development

- (1) Assess existing policies, action plans, and achievements related to off-grid renewable energy solutions, including solar home systems, mini-grids, smart grid applications, and small hydro technologies.
- (2) Provide recommendations to strengthen enabling conditions, financing mechanisms, and regulatory frameworks for the large-scale deployment of off-grid renewable energy across Africa in support of AfSEM objectives.

4.6 Renewable Energy Manufacturing

- (1) Assess existing policies, action plans, and achievements related to renewable energy manufacturing capacity in Africa, including solar panels, wind turbines, and other relevant components.
- (2) Provide recommendations to strengthen Africa's industrial base for renewable energy manufacturing by leveraging critical mineral resources, promoting a balanced regional distribution of industrial capacity, and addressing workforce, skills, and value-chain development challenges.

4.7 Renewable Energy Trading

- (1) Assess existing policies, action plans, and achievements related to renewable energy product and technology trade at the regional and continental levels under the AfSEM, including customs procedures, taxation, and other relevant trade instruments.
- (2) Provide recommendations to improve the enabling conditions for regional and continental renewable energy trade under the AfSEM, reduce market barriers, and promote the emergence of a competitive continental renewable energy market consistent with AfCFTA and AfSEM objectives.

4.8 Data Validation

- (1) Validate data on renewable energy and energy transition-related measures (technologies, deployment, integration) at regional and continental levels collected by AFREC in line with AfSEM's M&E indicators and using the digital information platform.
- (2) Support the SPCU in monitoring and evaluating progress in renewable energy and energy transition, providing validated inputs for reporting

4.9 Resource Mobilisation and Partnerships

- (1) Identify opportunities for mobilising financial, technical, and institutional resources from regional institutions, development partners, and private investors to support the deployment of renewable energy and energy transition-related initiatives within the AfSEM.

- (2) Promote coordination and partnerships among Member States, RECs, power pools, development partners, and private stakeholders to advance renewable energy deployment and energy transition measures within the AfSEM.

4.10 Cross-Cutting Coordination

- (1) Collaborate with other AfSEM Working Groups to ensure alignment between renewable energy and energy transition and complementary areas, including electricity infrastructure (WG1), regulation and market operation (WG2), investment coordination (WG3), and energy efficiency (WG5).
- (2) Contribute renewable energy and energy transition inputs to SPCU reporting and submissions to the HLOC and Ministerial Council, in support of AfSEM implementation.
- (3) Where relevant, WG4 also considers the specific circumstances of island states, ensuring that renewable energy deployment, off-grid solutions, and energy transition planning are adapted to their contexts within AfSEM's institutional framework.

5. Governance Structure

5.1 Chair and Vice-Chair(s)

- (1) WG4 shall be led by a Chair elected from among its members for a term of two (2) years, renewable once.
- (2) The Chair position shall rotate among the five African regions.
- (3) One or two Vice-Chairs shall be elected to support the Chair and act on their behalf when necessary.

5.2 .Functions of the Chair and Vice Chair

- (1) The Chair, in consultation with the SPCU, shall convene and preside over WG4 meetings.
- (2) The Chair shall provide strategic direction to WG4 in line with its mandate and responsibilities.
- (3) The Chair shall ensure effective coordination among members and sub-groups (See 6.6).
- (4) Represent WG4 in relevant AfSEM coordination forums when requested by the SPCU.
- (5) The Vice-Chair shall assist the Chair in these functions and assume the Chair's role as required.

5.3 Secretariat

- (1) The AUC-IED-SPCU in collaboration with AFREC shall act as the Secretariat of WG4.
- (2) The Secretariat shall be responsible for convening meetings, preparing and circulating agendas and documents, maintaining records, and ensuring timely communication with members.
- (3) The Secretariat shall support WG4 in preparing reports and recommendations for submission to the HLOC.

5.4 Members

- (1) Members shall be the experts formally nominated by their respective institutions as defined under the Composition section.
- (2) Members shall actively participate in meetings, contribute technical expertise, and support data collection and analysis within their institutional remit.

5.5 Advisory Members

- (1) Advisory Members, as defined under the Composition section, may participate in WG4 discussions and provide technical input.
- (2) Advisory Members shall not have voting rights and shall not count towards the quorum.

5.6 Observers and Resource Persons

- (1) WG4 may invite observers or resource persons from development partners, financial institutions, research organisations, and other relevant stakeholders to contribute technical input on specific issues.
- (2) Observers and resource persons shall not have voting rights.

6. Working Methods

6.1 Meetings

- (1) WG4 shall meet four (4) times per year, on a quarterly basis.
- (2) Meetings may be held in person or online, depending on logistical considerations and resources.
- (3) Extraordinary meetings may be convened at the request of the Chair, the SPCU, or at least one-third of the members, to address urgent issues requiring timely deliberation.

6.2 Convening and Notice

- (1) Meetings shall be convened by the Chair of WG4 in consultation with the SPCU.
- (2) Notice of regular meetings, together with a draft agenda, shall be circulated to members at least four (4) weeks in advance.
- (3) For extraordinary meetings, a minimum of seven (7) days' notice shall be given, unless urgency requires shorter notice with the agreement of members.

6.3 Quorum

- (1) A quorum shall be constituted when at least one-third of all expert group members, as defined under Section 7.2 (Composition), are present, provided that the quorum includes representation from at least one (1) member from Expert Group 1 (African Union Institutions), one (1) member from from Expert Group 2 (Regional Renewable Energy and Energy Efficiency Centres), one (1) member from Expert Group 3 (Regional Power Pools), and one (1) member of Expert Group 4 (Regional Regulatory Authorities).
- (2) Advisory Members (Expert Group 8) shall not count towards the quorum.

6.4 Decision-Making

- (1) Where a quorum, as defined under Section 6.3, is established, WG4 shall seek to adopt recommendations by consensus.
- (2) Where consensus cannot be achieved, a simple majority of expert group members present shall be sufficient for adoption.
- (3) If neither consensus nor a simple majority can be reached, the Chairperson shall cast the decisive vote.
- (4) Advisory Members (Expert Group 8), observers and resource persons may participate in discussions but shall not have voting rights.

6.5 Reporting

- (1) The Chair, supported by the SPCU, shall ensure that minutes and agreed recommendations of each meeting are recorded and circulated within two (2) weeks.
- (2) WG4 shall report its findings, recommendations, and technical inputs to the SPCU, which will consolidate them for submission to the HLOC.

6.6 Sub-Groups and Task Teams

- (1) WG4 may establish thematic sub-groups or ad hoc task teams to address specific technical issues.

- (2) Sub-groups and task teams shall report back to WG4 for consolidation and adoption of recommendations.

6.10 Cross-WG Collaboration Mechanism

- (1) Each WG shall nominate a **Liaison Officer** to interface with other **WGs**, ensuring coherence across technical, regulatory, financial, and sustainability dimensions. A semi-annual AfSEM WG Coordination Forum will be convened to review progress, align recommendations, and resolve cross-cutting issues.

7. Composition

7.1 General Principle

WG4 shall be comprised of technical experts nominated by AfSEM stakeholders with recognised competence in renewable energy and energy transition. Members shall be formally appointed by their respective institutions and shall serve in their official capacity.

7.2 Institutional Representation

WG4 shall include one (1) expert from each of the following institutions and stakeholder groups:

- (1) Expert Group 1 : African Union Institutions / AfSEM Main implementing Partners
 - African Union Commission (AUC) – Infrastructure and Energy Department (IED)
 - African Energy Commission (AFREC)
 - African Electrotechnical Standardization Commission (AFSEC)
 - AfSEM Strategic Planning and Coordination Unit (SPCU)
 - African Union Development Agency (AUDA-NEPAD)
 - African Continental Free Trade Area (AfCFTA)
 - African Development Bank (AfDB)
 - United Nations Economic Commission for Africa (UN ECA)
- (2) Expert Group 2: Regional Renewable Energy and Energy Efficiency Centres:
 - East African Centre of Excellence for Renewable Energy and Energy Efficiency (EACREEE)
 - Centre for Renewable Energy and Energy Efficiency for Central Africa (CEREEAC)
 - ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)
 - Regional Center for Renewable Energy and Energy Efficiency (RCREEE)
 - SADC Centre for Renewable Energy and Energy Efficiency (SACREE)
- (3) Expert Group 3: Regional Power Pools
 - West African Power Pool (WAPP)
 - Southern African Power Pool (SAPP)
 - Eastern Africa Power Pool (EAPP)
 - Central Africa Power Pool (CAPP)
 - Comité Maghrébin de l'Électricité (COMELEC) – representing Northern Africa utilities
- (4) Expert Group 4: Regional Regulatory Authorities
 - ECOWAS Regional Electricity Regulatory Authority (ERERA) – West Africa

- The Southern Africa Development Community Regional Energy Regulators Authority (SARERA) when operationalized, or until this operationalization, the Regional Energy Regulators Association of Southern Africa (RERA) – Southern Africa
 - Independent Regulatory Board (IRB) – East Africa
 - Commission Régionale de Régulation de l'Électricité de l'Afrique centrale (CORREAC) when operationalized, or until operationalization, a regional regulatory representative named by the ECCAS - Central Africa
 - Mediterranean Energy Regulators Association (MEDREG) – representing Northern Africa regulators⁴
- (5) Expert Group 5: Regional Economic Communities (RECs)
- Arab Maghreb Union (UMA)
 - Common Market for Eastern and Southern Africa (COMESA)
 - Community of Sahel-Saharan States (CEN-SAD)
 - East African Community (EAC)
 - Economic Community of Central African States (ECCAS)
 - Economic Community of West African States (ECOWAS)
 - Intergovernmental Authority on Development (IGAD)
 - Southern African Development Community (SADC)
- (6) Expert Group 6: Continental Renewable Energy Industry Associations and Initiatives:
- African Renewable Energy Initiative (AREI)
 - Africa Renewable Energy Manufacturing Initiative (AREMI)
 - Africa Solar Industry Association (AFSIA)
 - African Wind Energy Association (AWEA)
 - Africa Mini Grid Development Association (AMDA)
 - African Hydrogen Partnership (AHP)
 - Africa Green Hydrogen Alliance (AGHA)
- (7) Expert Group 7: Other Continental, regional and Pan-African Stakeholders
- Association of Power Utilities of Africa (APUA)
 - African School of Regulation (ASR)
- (8) Expert Group 8: Advisory Members:
- European Union (EU)
 - European Investment Bank (EIB)
 - The World Bank (WB)
 - Agence Française de Développement (AFD)
 - Kreditanstalt für Wiederaufbau (KfW)
 - Gesellschaft fuer Internationale Zusammenarbeit (GIZ)

⁴ Note: Northern Africa does not yet have a dedicated regional regulatory association. MEDREG, which includes Northern African national regulators, is recognised as the most appropriate platform to represent the region until a Northern African regional structure is established.

- International Energy Agency (IEA)
- International Renewable Energy Agency (IRENA)
- United Nations Development Programme (UNDP)
- United Nations Industrial Development Organisation (UNIDO)
- United Nations Environment Programme (UNEP)

Advisory Members shall participate in the work of WG4 in an advisory capacity and shall not have voting rights.

7.3 Additional Experts

Subject to approval by the SPCU, additional experts from Member States, development partners, financial institutions, or specialised technical organisations may be invited to participate in WG4 as observers or resource persons, without voting rights.

7.4 Appointment and Tenure

Experts shall be nominated by their parent institutions for a renewable term of three (3) years, ensuring continuity while allowing for rotation as necessary. Each institution shall notify the SPCU in writing of its appointed representative.

8. Deliverables / Outputs

WG4 shall, in accordance with its mandate and responsibilities, produce the following deliverables and outputs in support of AfSEM implementation:

8.1 Monitoring and Evaluation (M&E) Contributions

- (1) Provide periodic inputs for SPCU-led AfSEM M&E reports on renewable energy and energy transition, including analysis of progress, identification of gaps and barriers, and an annual update on deployment of renewable energy and energy transition measures under the AfSEM.
- (2) Supply validated data and technical inputs on renewable energy deployment, IPPs, off-grid development, manufacturing, trading, and energy transition-related initiatives, in line with AfSEM M&E indicators and the digital information platform.

8.2 Technical Reports and Recommendations

- (1) Prepare thematic reports on renewable energy integration, IPP frameworks, off-grid development, manufacturing capacity, renewable energy trade, energy transition pathways, and enabling policy instruments, to inform SPCU submissions to the HLOC.
- (2) Provide recommendations on renewable energy, energy transition, and climate-related aspects of AfSEM strategies, action plans, and operational guidelines, ensuring consistency with AfSEM policies and objectives and the AU Climate Change Strategy.

8.3 Consultation Outputs

- (1) Produce records and summaries of stakeholder consultations with Member States, RECs, regional power pools, regulators, development partners, and relevant institutions on renewable energy and energy transition under the AfSEM.
- (2) Consolidate feedback and recommendations on AfSEM renewable energy and energy transition priorities, including IPPs, off-grid solutions, manufacturing, and trading, reflecting regional and continental objectives.

8.4 Awareness and Communication Tools

- (1) Contribution to AfSEM awareness-raising materials, highlighting progress and challenges in the field of renewable energy deployment, IPP development, off-grid solutions, manufacturing, trading, and energy transition.
- (2) Prepare technical briefings and knowledge products on renewable energy and energy transition-related topics, including energy storage, integration, off-grid, IPPs, and manufacturing, for dissemination through the AfSEM Electricity Forum and other stakeholder platforms.

8.5 Ad Hoc Deliverables

- (1) Provide additional studies, analyses, or recommendations requested by the SPCU in the field of renewable energy and energy transition required for the completion of the AfSEM.

9. Resources and Support

9.1 Secretariat Support

- (1) The SPCU shall provide secretariat services to WG4.
- (2) The Secretariat shall coordinate meetings, prepare and circulate documents, maintain records, and support WG4 in preparing reports and recommendations.

9.2 Financial Resources

- (1) WG4 activities shall be financed through the AfSEM budget as approved by the African Union, supplemented by contributions from development partners in line with AU financial regulations and procedures.
- (2) Costs of participation (e.g. travel and accommodation) shall generally be borne by the nominating institutions, unless specific support is provided under AfSEM programmes or partner-funded initiatives.
- (3) Financial Coordination & Cost Control: To strengthen sustainability and predictability of financing for the Working Groups, the SPCU shall establish an AfSEM Financing Coordination Mechanism (AFCM). This mechanism shall:
 - Align WG activities with multi-year budget envelopes approved by the AUC and development partners.
 - Maintain a rolling pipeline of priority technical studies and capacity building actions, pre-screened for funding eligibility by key cooperation partners.
 - Track unit cost benchmarks (e.g., cost per technical study, per data validation exercise) to ensure cost-efficiency and transparent resource allocation.

9.3 Technical Resources

- (1) WG4 shall have access to AfSEM's digital information platform for data collection and monitoring, and to modelling tools developed under the African Continental Power Systems Masterplan (CMP).
- (2) Additional technical studies or tools required for WG4 tasks may be commissioned by the SPCU, subject to the availability of resources.

9.4 In-Kind Contributions

- (1) Member institutions shall provide in-kind support through the time and expertise of their nominated representatives, the sharing of relevant data, and hosting of WG4 meetings or workshops when feasible.

10. Duration and Review

10.1 Duration

- (1) WG4 on Renewable Energy and Energy Transition is established as a standing technical body under the AfSEM Governance Structure.
- (2) It shall remain in operation for the duration of AfSEM's implementation, unless otherwise decided by the Ministerial Council (Specialised Technical Committee on Transport and Energy – STC-T&E).

10.2 Review of ToR

- (1) These Terms of Reference shall be reviewed every three (3) years, or earlier if requested by the SPCU or the HLOC.
- (2) The review shall assess the continued relevance, effectiveness, and efficiency of WG4 in fulfilling its mandate, responsibilities, and outputs.

10.3 Amendments

- (1) Amendments to these Terms of Reference may be proposed by WG4 members or the SPCU.
- (2) Proposed amendments shall be reviewed by the SPCU and submitted to the HLOC for consideration.
- (3) Final approval of amendments shall rest with the Ministerial Council (STC-T&E).

5 Working Group 5 Energy Efficiency

Next page

The Specialised Technical Committee on Transport and Energy (STC-T&E), acting as the Ministerial Council for the African Single Electricity Market (AfSEM), has in its [session/meeting reference, date] adopted the following Terms of Reference for Working Group 5 on Energy Efficiency (WG5) under the AfSEM Governance Framework:

Terms of Reference

African Single Electricity Market (AfSEM)

Working Group 5: Energy Efficiency

1. Background

- 1.1 The African Single Electricity Market (AfSEM) is a flagship initiative of the African Union, adopted by the Assembly of Heads of State and Government in February 2021. AfSEM aims to establish a fully integrated, harmonized, and competitive continental electricity market that will enable efficient cross-border electricity trade, harmonize regulatory and technical standards, and mobilise investment to achieve universal access to affordable, reliable, and sustainable electricity in line with Agenda 2063.
- 1.2 The AfSEM Governance Structure provides for a set of institutional mechanisms to coordinate and oversee implementation. At its centre, the Strategic Planning and Coordination Unit (SPCU), housed within the African Union Commission's Infrastructure and Energy Department (IED), acts as the technical secretariat and is responsible for day-to-day implementation, monitoring and evaluation, reporting, and institutional liaison.
- 1.3 To support the SPCU in fulfilling its wide-ranging mandate, Technical Working Groups (WGs) have been established as specialised expert bodies. The WGs provide targeted technical input, identify barriers and gaps, and prepare recommendations, policies, and guidelines that facilitate AfSEM implementation. Their outputs inform the SPCU and, through it, the deliberations of the High-Level Technical Oversight Committee (HLOC) and the Ministerial Council.
- 1.4 Working Group 5 on Energy Efficiency (WG5) has been created to focus on the promotion, coordination, and integration of energy efficiency within the AfSEM. It supports the development of common policies, guidelines, and roadmaps that enable the large-scale implementation of efficiency measures across Member States and regions. WG5 contributes to lowering system costs, improving reliability, and strengthening sustainability by ensuring that efficiency measures are systematically incorporated into AfSEM strategies and planning.. To this end, WG5 provides recommendations on AfSEM strategies and action plans, contributes to monitoring and evaluating progress and gaps in energy efficiency, and supports awareness-raising and stakeholder engagement to ensure alignment with AfSEM policies and objectives and the AU Climate Change and Resilient Development Strategy and Action Plan. While most Island States are not physically interconnected with continental grids, they are fully part of AfSEM's institutional framework. Where relevant, their specific circumstances are therefore taken into account in the promotion of energy efficiency measures, standards, and best practices.
- 1.5 These Terms of Reference set out the mandate, responsibilities, scope of work, governance structure, working methods, composition, resources, deliverables, and duration of WG5.

2. Mandate

2.1 WG5 is mandated to provide technical expertise and evidence-based analysis to support the SPCU in monitoring progress, identifying barriers, and assessing opportunities for the deployment of energy efficiency measures within the AfSEM.

2.2 WG5 contributes to the development of common AfSEM policies, guidelines, and roadmaps for energy efficiency, promotes coherence of efficiency measures across Member States and regions, and supports the creation of enabling conditions for efficiency improvements necessary to reduce demand and improve system performance under the AfSEM.

3. Responsibilities

In fulfilling its mandate, WG5 shall exercise the following responsibilities in the field of energy efficiency:

3.1 Technical Preparation and Analysis

- (1) Assess and provide recommendations on measures required to establish and maintain coherent AfSEM frameworks, policies, and instruments that enable the implementation of energy efficiency measures across Member States and regions.
- (2) Identify priority actions to improve energy efficiency, including but not limited to reducing technical and non-technical losses, advancing demand-side management, promoting minimum energy performance standards and labelling schemes, and other measures that support AfSEM's energy efficiency objectives.

3.2 Energy Efficiency Integration

- (1) Provide recommendations on integrating energy efficiency measures into regional and continental electricity systems under the AfSEM, including but not limited to demand response, load management, and utility performance improvement.
- (2) Explore and recommend approaches to scale up energy efficiency programmes by creating scale, lowering costs, and accelerating implementation across the AfSEM.

3.3 Energy Efficiency in Electricity Networks

- (1) Promote measures to improve the efficiency of electricity networks across the AfSEM, including:
 - a. modernisation of infrastructure such as power lines, transformers, and smart grids;
 - b. reduction of technical losses through maintenance, reactive power compensation, and voltage optimisation;
 - c. enhanced demand-side management, including demand response, dynamic pricing, and the use of energy storage;
 - d. integration of renewable energy into networks through planning, microgrids, and hybrid systems;
 - e. capacity strengthening through training, regulatory incentives, and regional collaboration,
 - f. fostering innovation through digitalisation and emerging technologies such as IoT and blockchain.
- (2) Explore and recommend additional measures aimed at improving electricity network efficiency, reducing costs, and, where possible, accelerating their implementation under AfSEM frameworks and in coordination with the CMP.

3.4 Energy Efficiency in Electrical Appliances

- (1) Contribute to continental and regional initiatives that promote the adoption and use of energy-efficient electrical appliances by providing technical support and advisory inputs.
- (2) Explore and recommend measures to improve the efficiency of electrical appliances, with particular emphasis on the development, adoption, and harmonisation of standards at regional and continental levels under the AfSEM.

3.5 Advancing Local Manufacturing of Energy-Efficient Electrical Appliances

- (1) Assess existing policies, action plans, and achievements related to the industrial manufacturing of energy-efficient electrical appliances across the AfSEM at national, regional and continental levels.
- (2) Provide recommendations to strengthen the manufacturing of energy-efficient electric appliances across the AfSEM, including:
 - a. promoting the strategic distribution of industrial capacities across the across AfSEM regions;
 - b. addressing related challenges such as skills development, professional training, and academic capacity building,
 - c. supporting economic transformation and competitiveness through the development of regional and continental value chains.

3.6 Monitoring and Evaluation (M&E)

- (1) Monitor and assess progress, challenges, and gaps in the implementation of energy efficiency measures under the AfSEM.
- (2) Validate and harmonise data on energy efficiency at regional and continental levels, in line with AfSEM's M&E indicators and using the digital information platform.
- (3) Provide recommendations and validated inputs to the SPCU for the preparation of energy efficiency M&E reports submitted to the HLOC and other AfSEM stakeholders.

3.7 Policy and Planning Support

- (1) Provide recommendations to inform revisions of AfSEM strategic plans, action plans, and guidelines in the field of energy efficiency ensuring coherence across Member States and regions and consistency with AfSEM policies and objectives.

3.8 Consultation and Stakeholder Engagement

- (1) Facilitate consultations with Member States, regional power pools, regulators, utilities, development partners, and other relevant stakeholders on energy efficiency.
- (2) Promote coordination of regional and continental initiatives to advance energy efficiency measures in support of AfSEM implementation.

3.9 Awareness and Communication

- (1) Support the SPCU in raising awareness and disseminating information on AfSEM development and progress in the field of energy efficiency, including through reports, stakeholder forums, and technical briefings.

3.10 Ad Hoc Technical Support

- (1) Provide specialised technical input in the field of energy efficiency at the request of the SPCU, including analysis, data, or expert advice required to support AfSEM implementation, HLOC reporting, or preparation of documents for the Ministerial Council.

4. Scope of Work

WG5 shall focus on the following thematic areas in the field of energy efficiency:

4.1 Energy Efficiency Deployment and Barriers

- (1) Analyse the state, trends, and requirements of energy efficiency measures at regional and continental levels to support the effective functioning of the AfSEM.
- (2) Identify regulatory, technical, financial, and institutional barriers to energy efficiency measures, and recommend options to overcome them.

4.2 Enabling Frameworks and Instruments

- (1) Assess regional and continental frameworks, policies, and instruments relevant to energy efficiency under the AfSEM.
- (2) Provide recommendations for an AfSEM framework that establishes common enabling conditions for energy efficiency measures, integrates them into planning and operational strategies, while respecting subsidiarity and regional diversity.

4.3 System Integration and Networks

- (1) Review approaches to improving electricity network performance under the AfSEM, including demand response, loss reduction, load management, smart grids, and other measures that enhance efficiency.
- (2) Provide recommendations to strengthen system performance and support AfSEM market operation by combining energy efficiency improvements with measures that enhance sustainability, and, where applicable, contribute to security of supply and reliability.

4.4 Energy efficiency of Appliances and Equipment

- (1) Assess policies, standards, and achievements related to the efficiency of electrical appliances and equipment across the AfSEM.
- (2) Provide recommendations to strengthen and harmonise standards of electrical appliances and equipment at regional and continental levels, supporting the large-scale adoption of energy efficient appliances and equipment.

4.5 Manufacturing of Energy-Efficient Appliances

- (1) Assess policies, action plans, and achievements related to the industrial manufacturing of energy-efficient appliances within the AfSEM.
- (2) Provide recommendations to strengthen AfSEM's role in supporting manufacturing capacity, including balanced distribution of facilities, skills development, and integration into regional and continental value chains.

4.6 Data Validation

- (1) Validate data on energy efficiency at regional and continental levels collected by AFREC in line with AfSEM's M&E indicators and using the digital information platform.
- (2) Support the SPCU in monitoring and evaluating progress in the field of energy efficiency, providing validated inputs for reporting

4.7 Resource Mobilisation and Partnerships

- (1) Identify opportunities for mobilising financial, technical, and institutional resources from regional institutions, development partners, and private investors to support the deployment of energy efficiency measures across the AfSEM.
- (2) Promote coordination and partnerships among Member States, RECs, power pools, development partners, and private stakeholders to advance the deployment of energy efficiency measures within the AfSEM.

4.8 Cross-Cutting Coordination

- (1) Collaborate with other AfSEM Working Groups to ensure alignment between energy efficiency and complementary areas, including electricity infrastructure (WG1), regulation and market operation (WG2), investment coordination (WG3), and renewable energy and energy transition (WG4).
- (2) Contribute inputs in the field of energy efficiency to SPCU reporting and submissions to the HLOC and Ministerial Council, in support of AfSEM implementation.

- (3) Where relevant, WG5 also considers the specific circumstances of island states, ensuring that energy efficiency measures, standards, and best practices are adapted to their contexts within AfSEM's institutional framework.

5. Governance Structure

5.1 Chair and Vice-Chair(s)

- (1) WG5 shall be led by a Chair elected from among its members for a term of two (2) years, renewable once.
- (2) The Chair position shall rotate among the five African regions.
- (3) One or two Vice-Chairs shall be elected to support the Chair and act on their behalf when necessary.

5.2 Functions of the Chair and Vice Chair

- (1) The Chair, in consultation with the SPCU, shall convene and preside over WG5 meetings.
- (2) The Chair shall provide strategic direction to WG5 in line with its mandate and responsibilities.
- (3) The Chair shall ensure effective coordination among members and sub-groups (See 6.6).
- (4) Represent WG5 in relevant AfSEM coordination forums when requested by the SPCU.
- (5) The Vice-Chair shall assist the Chair in these functions and assume the Chair's role as required.

5.3 Secretariat

- (1) The AUC-IED-SPCU in collaboration with AFREC shall act as the Secretariat of WG5.
- (2) The Secretariat shall be responsible for convening meetings, preparing and circulating agendas and documents, maintaining records, and ensuring timely communication with members.
- (3) The Secretariat shall support WG5 in preparing reports and recommendations for submission to the HLOC.

5.4 Members

- (1) Members shall be the experts formally nominated by their respective institutions as defined under the Composition section.
- (2) Members shall actively participate in meetings, contribute technical expertise, and support data collection and analysis within their institutional remit.

5.5 Advisory Members

- (1) Advisory Members, as defined under the Composition section, may participate in WG5 discussions and provide technical input.
- (2) Advisory Members shall not have voting rights and shall not count towards the quorum.

5.6 Observers and Resource Persons

- (1) WG5 may invite observers or resource persons from development partners, financial institutions, research organisations, and other relevant stakeholders to contribute technical input on specific issues.
- (2) Observers and resource persons shall not have voting rights.

6. Working Methods

6.1 Meetings

- (1) WG5 shall meet four (4) times per year, on a quarterly basis.
- (2) Meetings may be held in person or online, depending on logistical considerations and resources.

- (3) Extraordinary meetings may be convened at the request of the Chair, the SPCU, or at least one-third of the members, to address urgent issues requiring timely deliberation.

6.2 Convening and Notice

- (1) Meetings shall be convened by the Chair of WG5 in consultation with the SPCU.
- (2) Notice of regular meetings, together with a draft agenda, shall be circulated to members at least four (4) weeks in advance.
- (3) For extraordinary meetings, a minimum of seven (7) days' notice shall be given, unless urgency requires shorter notice with the agreement of members.

6.3 Quorum

- (1) A quorum shall be constituted when at least one-third of all expert group members, as defined under Section 7.2 (Composition), are present, provided that the quorum includes representation from at least one (1) member from Expert Group 1 (African Union Institutions), two (2) members from Expert Group 2 (Regional Energy Efficiency), one (1) member from Expert Group 3 (Power Pools) and one (1) members of Expert Group 3 (Regional Regulatory Authorities).
- (2) Advisory Members (Expert Group 7) shall not count towards the quorum.

6.4 Decision-Making

- (1) Where a quorum, as defined under Section 6.3, is established, WG5 shall seek to adopt recommendations by consensus.
- (2) Where consensus cannot be achieved, a simple majority of expert group members present shall be sufficient for adoption.
- (3) If neither consensus nor a simple majority can be reached, the Chairperson shall cast the decisive vote.
- (4) Advisory Members (Expert Group 7), observers and resource persons may participate in discussions but shall not have voting rights.

6.5 Reporting

- (1) The Chair, supported by the SPCU, shall ensure that minutes and agreed recommendations of each meeting are recorded and circulated within two (2) weeks.
- (2) WG5 shall report its findings, recommendations, and technical inputs to the SPCU, which will consolidate them for submission to the HLOC.

6.6 Sub-Groups and Task Teams

- (1) WG5 may establish thematic sub-groups or ad hoc task teams to address specific technical issues.
- (2) Sub-groups and task teams shall report back to WG5 for consolidation and adoption of recommendations.

6.7 Cross-WG Collaboration Mechanism

- (1) Each WG shall nominate a **Liaison Officer** to interface with other **WGs**, ensuring coherence across technical, regulatory, financial, and sustainability dimensions. A semi-annual AfSEM WG Coordination Forum will be convened to review progress, align recommendations, and resolve cross-cutting issues.

7. Composition

7.1 General Principle

WG5 shall be comprised of technical experts nominated by AfSEM stakeholders with recognised competence in energy efficiency. Members shall be formally appointed by their respective institutions and shall serve in their official capacity.

7.2 Institutional Representation

WG5 shall include one (1) expert from each of the following institutions and stakeholder groups:

(1) Expert Group 1 : African Union Institutions

- African Union Commission (AUC) – Infrastructure and Energy Department (IED)
- African Energy Commission (AFREC)
- African Electrotechnical Standardization Commission (AFSEC)
- AfSEM Strategic Planning and Coordination Unit (SPCU)
- African Union Development Agency (AUDA-NEPAD)
- African Continental Free Trade Area (AfCFTA)
- African Development Bank (AfDB)
- United Nations Economic Commission for Africa (UN ECA)

(2) Expert Group 2 : Regional Energy Efficiency Centers

- East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE)
- SADC Centre for Renewable Energy and Efficiency (SACREEE)
- Centre for Renewable Energy and Energy Efficiency for Central Africa (CEREEAC)
- ECOWAS Centre for Renewable Energy and Efficiency (ECREEE)
- Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)

(3) Expert Group 3 : Power Pools

- West African Power Pool (WAPP)
- Southern African Power Pool (SAPP)
- Eastern Africa Power Pool (EAPP)
- Central Africa Power Pool (CAPP)
- Comité Maghrébin de l'Électricité (COMELEC) – representing Northern Africa utilities

(4) Expert Group 4: Regional Economic Communities (RECs)

- Arab Maghreb Union (UMA)
- Common Market for Eastern and Southern Africa (COMESA)
- Community of Sahel-Saharan States (CEN-SAD)
- East African Community (EAC)
- Economic Community of Central African States (ECCAS)
- Economic Community of West African States (ECOWAS)
- Intergovernmental Authority on Development (IGAD)
- Southern African Development Community (SADC)

(5) Expert Group 5: Regional Regulatory Authorities

- ECOWAS Regional Electricity Regulatory Authority (ERERA) – West Africa
- The Southern Africa Development Community Regional Energy Regulators Authority (SARERA) when operationalized, or until this operationalization, the Regional Energy Regulators Association of Southern Africa (RERA) – Southern Africa

- Independent Regulatory Board (IRB) – East Africa
 - Commission Régionale de Régulation de l'Électricité de l'Afrique centrale (CORREAC) when operationalized, or until operationalization, a regional regulatory representative named by the ECCAS - Central Africa
 - Mediterranean Energy Regulators Association (MEDREG) – representing Northern Africa regulators⁵
- (6) Expert Group 6: Other Continental, regional and Pan-African Stakeholders
- Association of Power Utilities of Africa (APUA)
 - African School of Regulation (ASR)
 - United for Efficiency (U4E)
 - African Forum for Utility Regulators (AFUR)
- (7) Expert Group 7: Advisory Members
- European Union (EU)
 - European Investment Bank (EIB)
 - The World Bank
 - Agence Française de Développement (AFD)
 - Kreditanstalt für Wiederaufbau (KfW)
 - Gesellschaft fuer Internationale Zusammenarbeit (GIZ)
 - International Energy Agency (IEA)
 - International Renewable Energy Agency (IRENA)
 - United Nations Development Programme (UNDP)
 - United Nations Industrial Development Organisation (UNIDO)
 - United Nations Environment Programme (UNEP)

Advisory Members shall participate in the work of WG5 in an advisory capacity and shall not have voting rights

7.3 Additional Experts

Subject to approval by the SPCU, additional experts from Member States, development partners, financial institutions, or specialised technical organisations may be invited to participate in WG5 as observers or resource persons, without voting rights.

7.4 Appointment and Tenure

Experts shall be nominated by their parent institutions for a renewable term of three (3) years, ensuring continuity while allowing for rotation as necessary. Each institution shall notify the SPCU in writing of its appointed representative.

8. Deliverables / Outputs

WG5 shall, in accordance with its mandate and responsibilities, produce the following deliverables and outputs

⁵ Note: Northern Africa does not yet have a dedicated regional regulatory association. MEDREG, which includes Northern African national regulators, is recognised as the most appropriate platform to represent the region until a Northern African regional structure is established.

in support of AfSEM implementation in the field of energy efficiency:

8.1 Monitoring and Evaluation (M&E) Contributions

- (1) Provide periodic inputs for SPCU-led AfSEM M&E reports on energy efficiency, including analysis of progress, identification of gaps and barriers, and an annual update on efficiency measures under the AfSEM.

8.2 Technical Reports and Recommendations

- (1) Thematic reports on energy efficiency, including but not limited to demand-side management, loss reduction, performance standards, energy efficient appliances, energy efficient electricity networks, and manufacturing of efficiency technologies, to inform SPCU submissions to the HLOC.
- (2) Recommendations on energy efficiency aspects of AfSEM strategies, action plans, and operational guidelines, ensuring consistency with AfSEM policies and objectives and the AU Climate Change and Resilient Development Strategy and Action Plan.

8.3 Consultation Outputs

- (1) Records and summaries of stakeholder consultations with Member States, regional power pools, regulators, utilities, development partners, and relevant institutions on energy efficiency under the AfSEM.
- (2) Consolidated feedback and recommendations on AfSEM priorities in the field of energy efficiency, reflecting regional and continental objectives.

8.4 Awareness and Communication Tools

- (1) Contributions to AfSEM awareness-raising materials, highlighting progress and challenges in the field of energy efficiency.
- (2) Technical briefings and knowledge products on energy efficiency measures for dissemination through the AfSEM Electricity Forum and other stakeholder platforms.

8.5 Ad Hoc Deliverables

- (1) Additional studies, analyses, or recommendations requested by the SPCU in the field of energy efficiency required for the completion of the AfSEM.

9. Resources and Support

9.1 Secretariat Support

- (1) The SPCU shall provide secretariat services to WG5.
- (2) The Secretariat shall coordinate meetings, prepare and circulate documents, maintain records, and support WG 5 in preparing reports and recommendations.

9.2 Financial Resources

- (1) WG5 activities shall be financed through the AfSEM budget as approved by the African Union, supplemented by contributions from development partners in line with AU financial regulations and procedures.
- (2) Costs of participation (e.g. travel and accommodation) shall generally be borne by the nominating institutions, unless specific support is provided under AfSEM programmes or partner-funded initiatives.
- (3) Financial Coordination & Cost Control: To strengthen sustainability and predictability of financing for the Working Groups, the SPCU shall establish an AfSEM Financing Coordination Mechanism (AFCM). This mechanism shall:

- Align WG activities with multi-year budget envelopes approved by the AUC and development partners.
- Maintain a rolling pipeline of priority technical studies and capacity building actions, pre-screened for funding eligibility by key cooperation partners.
- Track unit cost benchmarks (e.g., cost per technical study, per data validation exercise) to ensure cost-efficiency and transparent resource allocation.

9.3 Technical Resources

- (1) WG5 shall have access to AfSEM's digital information platform for data collection and monitoring, and to modelling tools developed under the African Continental Power Systems Masterplan (CMP).
- (2) Additional technical studies or tools required for WG5 tasks may be commissioned by the SPCU, subject to the availability of resources.

9.4 In-Kind Contributions

- (1) Member institutions shall provide in-kind support through the time and expertise of their nominated representatives, the sharing of relevant data, and hosting of WG5 meetings or workshops when feasible.

10. Duration and Review

10.1 Duration

- (1) WG5 on Energy Efficiency is established as a standing technical body under the AfSEM Governance Structure.
- (2) It shall remain in operation for the duration of AfSEM's implementation, unless otherwise decided by the Ministerial Council (Specialised Technical Committee on Transport and Energy – STC-T&E).

10.2 Review of ToR

- (1) These Terms of Reference shall be reviewed every three (3) years, or earlier if requested by the SPCU or the HLOC.
- (2) The review shall assess the relevance, effectiveness, and efficiency of WG5 in fulfilling its mandate, responsibilities, and outputs.

10.3 Amendments

- (1) Amendments to these Terms of Reference may be proposed by WG5 members or the SPCU.
- (2) Proposed amendments shall be reviewed by the SPCU and submitted to the HLOC for consideration.
- (3) Final approval of amendments shall rest with the Ministerial Council (STC-T&E).