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Opening Remarks of Her Excellency the Commissioner for Infrastructure and Energy

H.E. Dr Amani Abou-Zeid

Keynote Address

Advancing Africa's Sustainable Economic Development Through Innovative Frameworks for Capacity in Nuclear Skills, Technologies, and Policies

16 February 2024

- Excellencies and Honourable Ministers from African Union Member States;
- Mr. William D Magwood, IV, OECD NEA Director-General
- Ms. Ragnheiður Elín Árnadóttir, OECD DEV Director
- Mr. Enobot Agboraw, AFCONE Executive Secretary
- Distinguished Delegates from Government, International
 Organizations, Civil Society, Academia and Research Institutions;
- Ladies and Gentlemen

• All Protocols observed:

1. On behalf of the African Union Commission, I greet you all and I welcome you to this important event on advancing nuclear energy development in Africa.

2. First, I would like to thank and congratulate the OECD Nuclear Energy Agency, the OECD Development Centre (DEV) and the African Commission on Nuclear Energy (AFCONE) for organising this side event and for providing this platform for African and global stakeholders to chart the future of nuclear energy on the continent. I believe that this event is coming at an opportune time for our Continent and the world when countries and regions must rethink their energy systems towards low carbon trajectories.

Distinguished Delegates,

Ladies and Gentlemen,

3. For Africa, access to energy is a key pre-requisite in the achievement of its economic and social transformation objectives including the AU Agenda 2063, the Sustainable Development Goals, industrialisation and trade, poverty alleviation and job creation. Despite the energy sector being a major priority and several interventions being made at the local, national, regional, and continental levels, Africa's energy supplies are not meeting the needs and aspirations of its people due to pertinent issues relating to the conversion of its huge energy resources, including both renewables and nonrenewables, into reliable and efficient modern energy services.

4. The energy challenges facing the African energy sector are wellknown. These range from low technical capacities and access to inadequacies in markets expansion, investments and institutional arrangements. This has resulted in leaving out over 600 million people without access to reliable electricity services and only about 200 million people having access to clean cooking on the continent.

5. The low levels of infrastructure and access to modern energy services on the continent means that Africa will have to accelerate its means of implementation in addition to strengthening key pillars that include financing, technologies and skills, policies and regulatory frameworks and fostering regional integration. At the same time, Africa must also consider the increasing convergence of energy and climate change mitigation objectives at the global level, which calls for radical shifts towards low carbon energy sources. For Africa, the long-term objective is to maintain its low carbon energy trajectory by exploiting low carbon energy sources including renewable energy, natural gas, green hydrogen, and nuclear energy.

6. There is no doubt that nuclear energy has a huge role to play in the future African energy system for many reasons:

- First, it is a clean energy resource with extremely low lifecycle carbon and other environmental emissions if harnessed properly. This is particularly important for Africa in maintaining its relatively lower emissions compared to the rest of the world.
- Second, nuclear energy is also characterised by a huge baseload, which will be important in powering industrialisation on the continent.
- Third, large scale applications of nuclear energy will also help in rapidly expanding modern energy services on the continent through the development of national, regional, and continental grids.
- Fourth, new developments of small scale modular nuclear plants built in factories and assembled on site provide opportunities to reduce costs and power industrial sites.

7. Currently, nuclear energy accounts for 10% of electricity consumption worldwide, generating about 3,000 TWh, with Africa accounting for a mere 0.6% of the total nuclear electricity consumed worldwide. In fact, South Africa is the only African country with an operational Nuclear Power Plant of about 1800 MW capacity, which represents 5% of the country's electricity supply.

8. The paradox is that Africa accounts for almost 20% of identified recoverable uranium resources in the world, estimated at 888 thousand

tonnes. Moreover, the continent accounts for more than 18% of the total production of Uranium in the world, indicating Africa is only serving as a resource supplier for nuclear energy to be consumed elsewhere. On the other hand, the availability of Uranium resource in Africa makes it easier to for the continent to adopt nuclear energy.

9. It is also encouraging that several other countries are moving towards nuclear energy in the near future. For example, Egypt has already committed over US\$25 billion to build a 4800 MW nuclear power plant in the country. Nigeria, Algeria, Ghana and Morocco are also a few other countries with concrete nuclear energy ambitions in the pipeline.

Distinguished Delegates,

Ladies and Gentlemen,

10. Despite the huge resources and prospects for nuclear energy utilisation in Africa, we must first develop the skills and capacities for utilisation, identify the appropriate technologies and implement the necessary policies to accelerate the uptake of nuclear energy. The African Common Position on Energy Access and Transition, adopted by the AU Executive Council in 2022, already calls for Africa to continue to develop and implement appropriate frameworks to utilize nuclear energy in its energy transition. The Common Position also calls for the continent to foster cooperation at the regional, continental, and global levels to mobilize financing, acquire technologies, and enhance skills and expertise in this sector.

11. Due to the complexity and sensitivity of nuclear technologies, skills and expertise are required along the entire value chain. This also calls for innovative frameworks for identifying the range of capacities and skills required, and also developing, managing and utilising skills and capacities. This requires engaging with all stakeholders including political leaders, research institutions and the education sector. Promoting research and development as well as technology transfer, incubation and adoption will also be crucial.

Distinguished Delegates,

Ladies and Gentlemen,

12. Utilising nuclear energy in Africa also requires addressing the social, political, safety & security, and waste disposal issues associated with the use of nuclear energy technologies. In terms of the social issues, a majority of the public at the global level have their misgivings on the use of nuclear energy mainly because of concerns of potential impacts from accidents and radiation spills. At the political level, there are concerns that some countries could transfer nuclear technologies towards military applications, which could trigger conflicts and instability. In terms of waste disposal, the radioactive wastes from nuclear facilities present a long-term danger to the public and the environment, especially if it is not properly managed.

13. It is therefore very important for all stakeholders at the global, regional and national levels to constantly interact and develop harmonised strategies in the utilisation of nuclear technologies. This provides a holistic approach to addressing all the concerns and issues related to the use of nuclear energy.

14. Since Africa is also just beginning to explore the use of nuclear energy, it will also be very important to engage with other world regions and countries that have a wealth of experience in nuclear applications so that best practices are applied in all the stages of nuclear energy development on the continent.

15. Another important aspect for Africa is also to ensure that there is regional cooperation in the development of nuclear energy. This will be important for safety and security as well as mobilising the necessary financial and technical resources that are required to implement these complex programmes. Regional cooperation will also ensure that resources are efficiently utilised and shared due to the uneven distribution of uranium deposits across the continent. For example, the uranium deposits in Africa are mainly concentrated in Niger, Namibia, and South Africa. Regional integration and cooperation in the energy sector will ensure that benefits are spread across neighbouring countries and regions within the continent.

Distinguished Delegates,

Ladies and Gentlemen,

16. As African Union Commission, our mandate in the Energy Sector is to lead and advocate for policies and mobilise resources for African Countries to improve modern energy access, in view of their particular importance to Africa's development as stipulated in the AU Agenda 2063. We believe that nuclear energy offers a viable solution to Africa's energy challenges. But first, we have to mobilise all stakeholders including policymakers, civil society,

academia, security agencies as well as the international community to chart concrete ways forward.

17. I believe that the African Commission on Nuclear Energy (AFCONE) is well placed to mobilise and sensitise all the major stakeholders. I would also like to use this opportunity to commend the OECD Nuclear Energy Agency, the OECD Development Centre, and International Atomic Energy Agency (IAEA), for their collaboration with AFCONE and also their global efforts towards promoting the peaceful applications of nuclear technologies.

18. I would like to end by using this opportunity to call upon all stakeholders from all parts of the world to support and join us in our nuclear energy ambitions.

Thank you all for your kind attention.