



The African Union and the Digitized Governance of the Energy Transition: Governance from AU Bodies to Non-State Actors in the Age of the Anthropocene

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Dematerialization is one of the areas where the African Union (AU) has historically and undoubtedly been weak. However, since 2006, the African Energy Commission (AFREC) has enabled the AU to innovate in the field of energy information by setting up the African Energy Information System (AEIS). These few lines therefore propose a brief analysis of the AU and the digitized governance of the energy transition through the role of AU bodies that are trying to ensure universal access to energy information for Non-State Actors. This reflection will make it possible to evoke in turn the emerging consensus on the dematerialization of energy information, the role of various actors in its governance, before trying to apprehend the digitization of energy information

itself and to wonder about the stakes which are attached to it.

The Emerging Consensus on Dematerializing Energy Information

Fathoming the desire to dematerialize energy information in Africa requires an understanding of the development of energy cooperation on the continent. This cooperation was initiated under the Organization of African Unity (OAU) before being continued by the AU. Originally, the Charter of the Organization of African Unity of May 25, 1963, already provided in its preamble that it was in the heightened interest of Africa to develop natural and energy resources for the benefit of its people and for its industrial development. Significant emphasis was placed on this in view of the role natural and energy resources would play in the struggle for Africa's self-determination. Therefore, it was considered that these resources were central to support the economic and industrial progress of Africa, and especially in the prosperity of the populations of an independent Africa. From then on, the exposure of the problem of access to energy in the early 1960s made it possible to observe that, despite Africa's energy potential, characterized by large deposits of fossil and renewable resources, the African populations were confronted in certain regions with energy shortages and various supply problems. Such a situation was in itself an obstacle to the economic, industrial and social progress of these countries. As a result, it seemed imperative to act diligently. This is how the desire for collective management of resources emerged and was supported within the framework of the OAU.

In this respect, the inter-African cooperation mechanism was a fundamental vector for the development of natural and energy resources. However, only about or less than 10% of these resources were developed, with disparities depending on national capacities. The desire to develop resources emphasized the need to ensure that the African populations benefited exclusively. This was coupled with an interest in reducing the negative externalities that resulted from the cutting of wood and its use as a primary source of energy. One of the many consequences often mentioned was the deforestation of many areas on the continent. It was in this spirit that the African Convention on the Conservation of Nature and Natural Resources adopted on September 15, 1968, attempted to support the ambition of a rational exploitation of natural resources, including the promotion of an integrated concept of natural resource

management. Thus, the States committed themselves to take imperative measures to maintain a certain overall coherence in the conservation, use and development of energy and natural resources.

It is this instrument that opened the series of actions that the OAU will attempt thereafter. It includes for example the African Cultural Charter, adopted on July 5, 1976, in its article 1, para. G, aiming at encouraging the development of scientific and technological capabilities in order to better understand natural processes. This instrument will also encourage the use of information technology to promote various cultural elements, including the cultural environment. A compromise formula will then be found between State sovereignty over these energy resources and the necessary inter-African cooperation for the collective management of these resources. Articles 21 and 22 of the African Charter on Human and Peoples' Rights, adopted on June 1, 1981, set the terms of this balance. This rich trajectory of development of the will to cooperate in the field of energy and natural resources will crystallize with the adoption of the Treaty establishing the African Economic Community (June 3, 1991). Its Article 54 para. 2 (f) establishes the principle of energy cooperation in Africa. It is notably on the basis of this principle, which is in fact harmonized with other principles stemming from general international law, that the process of dematerialization will be supported. As part of the OAU policies, energy cooperation and dematerialization will make their way into integrated economic development plans such as the 1980 Lagos Plan of Action or the 1995 Cairo Programmes of Action, but also in the decisions of the Pan-African Conference of Energy Ministers. It is notably from this trajectory that AFREC will emerge with the ambition of creating a tool for cooperation through the mechanism of consultation and coordination of energy action.

Governance of the Dematerialization of Energy Information

The governance of energy cooperation in Africa is ensured by three different bodies. On the one hand, two main organs of the AU. First, the Assembly of Heads of State and Government, which is a plenary and deliberative body, bringing together heads of state and government, and whose powers and responsibilities are set out in Article 9 of the AU Constitutive Act. It has a wide range of powers, including essentially decision-making, policy-making, monitoring and sanctioning powers. In this regard, it is primarily responsible for

defining common policies and setting the AU's priorities, supporting political, social and economic integration on the continent, and ensuring the implementation of the decisions and policies. Second, the Executive Council is a principal organ accountable to the Assembly. It is a plenary and deliberative body of ministerial rank where the ministers of foreign affairs sit. In this respect, a significant part of its functions relates to the preparatory work for the annual sessions of the Assembly. Nevertheless, Article 13 of the AU Constitutive Act gives it the power to coordinate and decide on policies in areas of common interest, including energy, industry, mineral resources (b) and environmental protection (e).

But dematerialization is concretely part of AFREC's action. AFREC is a specialized agency of the AU established by the Convention of the African Energy Commission of 11 July 2001. Its mission is to develop and harmonize energy policies in Africa, create an African Energy Information System and Database (AEIS), and mobilize resources to support the work of the RECs in the field of energy and renewable energy (Articles 3-4). It manages a series of programs, including the Energy Transition Program, the African Energy Efficiency Program and the Bioenergy Program.

Digitization of Energy Information Itself

The dematerialization effort has crystallized with the creation of the AEIS. Central initiative through which the AU participates in the collective management of energy resources, the AEIS is helping to reshape the mapping of energy resources in Africa. While this effort is not a direct resource management effort, it is a dual mechanism for information and transparency on energy resource management. AFREC's energy information management responsibilities include the collection of energy statistics and data. This operation aims at facilitating the dissemination and exchange of information among AU member states and ensuring their availability on the Internet. The establishment of the AEIS has promoted above all horizontal relations between the AU and regional and international organizations, many of which work in the energy field. Moreover, this system tends to democratize information on the energy and climate transition, by ensuring dissemination to the general public and to national and foreign private partners. In order to collect energy information and data from the 54 AU member states, AFREC has established

national focal points. These are generally four per member state, appointed by the ministers in charge of energy. These focal points include a coordinator, who centralizes and ensures the proper management of data before their transmission to AFREC. To fulfill this mission, the coordinator is supported by a focal point for energy statistics, a focal point for energy efficiency, and a focal point for prices and taxes and installed power plants.

These actors in the internal governance of the AEIS ensure the proper functioning of two types of data management tools: the energy data collection questionnaires and the data visualization tool. These tools collect data related to energy balance, energy efficiency, energy prices and taxes, power plants, CO2 emissions, and the implementation of the energy-related SDG7. The information is intended to simplify the decision-making mechanism of member states and various actors regarding energy access and energy transition. To this end, the information represents original raw statistics, which will be later consolidated to constitute the mapping of energy supply, transformation and consumption of all African countries. The visualization tool corresponds to the interface for the dissemination of processed or raw information, which is updated annually. In this regard, among the information available are the African energy efficiency indicators for the residential sector, key statistics on energy in Africa, the African energy database, the African energy balance sheet as well as historical data and time series including the energy balance sheets of African member states from 2000 to 2018.

To help anchor the AEIS, AFREC has put in place a capacity building program for member states. This program consists of developing the technical and technological capacities of member states in the collection and management of energy information. The main effort is to assist member states in setting up National Energy Information Systems (NEIS). These systems allow them to collect data on all activities that fall under the energy sector. Over the years, AFREC has supported the effort to improve the NEIS, particularly in the area of national data collection, and has encouraged national collaborations to share knowledge and practices for the benefit of member states with nascent NEIS. At the same time, AFREC has developed various training programs, including continuous training programs for data collectors, special training for national focal points, etc.

The Current Challenges of Dematerializing Energy Information

These issues are to be considered in terms of opportunity and risk. From the point of view of the opportunity it represents, it should first be noted that AFREC has set up the AEIS, which provides access to a global map of the African energy system, based on data collected and processed by Africans who are familiar with the realities of each country. It is a single source of data collection and dissemination that avoids the need for anyone interested in researching 54 countries from several sources with little chance of having consolidated information. Moreover, this single source is fundamentally different from the data collected and processed by Western experts, who convey all their prejudices about Africa and produce biased analyses as a result. In addition to the AEIS that AFREC has put in place, it is truly a state of the art of the energy situation in Africa, which it allows to follow in real time. Provided that the AEIS is updated, the information available will allow both researchers and interested persons, investors, economic or political actors, to have a reliable source. However, one of the strengths of AFREC is that it has been able to interconnect the AEIS and the NEIS, creating what is both a network and a vertical governance mechanism, so that avenues of improvement are thought of for the AEIS as a whole, knowing that each state has the possibility of sharing with others the innovations and practices that make its NEIS specific. Finally, both the AEIS and the NEIS are tools for public and private decision making. Whether it is the AU or the RECs or even international partners who would like to invest in the field of energy will be able to use, for their decisions, policies and strategies, the raw or processed data at the national level and then disseminated at the continental level. This last opportunity is coupled with a transparency issue, accepted in international trade or investment law, which allows AFREC to support the security of energy investments in Africa.

With regard to risks, it seems appropriate to point out two types of problems. On the one hand, the internal risks or risks inherent to the AEIS as a tool for visualizing or disseminating energy information. Several problems can be mentioned. These include the difficulty of interpreting or navigating certain data available on the AEIS, particularly raw data, which are not accompanied by a legend and sometimes explanations, but also problems of access to information by country: some countries have no data available to date, and can

therefore hope that the AEIS will be improved from this point of view. The delays observed in certain databases for various reasons, including bureaucracy, malfunctioning of administrations, deserve to be reported. Finally, the problem of operationalizing the database on hydroelectricity and bioenergy prevents us from having an overview of the real situation of the exploitation of these resources.

On the other hand, there are overall risks related to the AEIS and its general environment. It is important to remember first of all that energy information is strategic information. As a result, for reasons of national sovereignty, a member state might not cooperate in making available certain information that it considers sensitive. This hypothesis is all the more justified since the AU and AFREC only have powers of attribution, those conferred by the member states, which they themselves can block for reasons of defense or national economy, or even internal security. The prevalence of sovereignty, and therefore of the will of states, remains the main risk that could affect efforts to dematerialize energy information and consequently its availability. Another risk that is related to the first one could concern the delay of certain member states in transmitting data and statistics to their national focal points. These delays will have consequences for the processing and dissemination of data, the immediate impact of which seems to be the updating of the website. However, energy being a central resource and the engine of the world economy, there is no doubt that a certain competition due to the dissemination of African energy information by non-African actors tends to obliterate AFREC's action. Competition because organizations such as IRENA or the IEA have more important funding whereas AFREC depends on contributions from member states and the funds it raises.

Ultimately, one can see that this dematerialization effort poses a more general challenge to Africa: how to use this process to pursue the construction of a common destiny and stay on a reasonable path of self-determination?

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