### Commission Africaine de l'Energie African Energy Commission AFRICAN UNION اللجنة الافريقية للطاقة



Commissao Africana d'Energia

CELEBRATING









His Excellency, Mr MOUSSA FAKI MAHAMAT, Chairperson of the African Union Commission Has made a Working Visit to AFREC On March 12, 2018



His Excellency, Dr AMANI ABOU-ZEID, Commissioner, Infrastructure & Energy, Of the African Union Commission Has made a Working visit to AFREC On March 25, 2018

organized two Regional Training Workshops on Data Collection of Energy Statistics and Energy Efficiency, focused on the Residential Sector and the Creation of the Database of **Energy Efficiency Indicators of the Industrial Sector** 



27-29 March 2018, Algiers, Algeria



24-26 April 2018, Cairo, Egypt





# **African Union**

**African Energy Commission** 



AFRICAN ENERGY COMMISSION COMMISSION AFRICAINE DE L'ENERGIE COMISSAO AFRICANA D'ENERGIA اللجنة الأفريقية للطاقة





### **PRESS RELEASE**

HE Mr Moussa Faki Mahamat, Chairperson of the African Union Commission, visit AFREC at headquarters in Hydra, Algiers, Algeria | 12 March 2018

### THE MEETING

His Excellency, Mr. Moussa Faki Mahamat, the Chairperson of the African Union Commission, during his threeday mission to Algeria, took the opportunity of his stay to visit the African Energy Commission "AFREC" on March 12, 2018. At the meeting which was held Mr Marzouk Atef, the Executive Director by Interim of AFREC gave a presentation on the activities of AFREC.





The Executive Director of AFREC, Mr. Marzouk Atef presented a Trophy to His Excellency Mr. Moussa Faki Mahamat to express to him, by this, that AFREC was very Honored to welcome him on this day of March 12th, 2018, AFREC's Office in Hydra, Algiers, Algeria.



## **African Union**



Commission Africaine de l'Energie African Energy Commission



AFRICAN ENERGY COMMISSION COMMISSION AFRICAINE DE L'ENERGIE COMISSAO AFRICANA D'ENERGIA اللجنة الأفريقية للطاقة



### PRESS RELEASE

Working Missions of His Excellency, Dr. AMANI Abou-Zeid, Commissioner for "Infrastructure & Energy" of African Union Commission to the People's Democratic Republic of Algeria | March 25<sup>th</sup> - 28<sup>th</sup> 2018

Her Excellency Dr. AMANI Abou-Zeïd, the Commissioner for Infrastructure and Energy of the African Union Commission undertook a mission to the People's Democratic Republic of Algeria from March 25th to 28th, 2018.

In her work program on the 26th of March 2018, the Commissioner met with:

- The Algerian Minister of Energy, H.E. Mr Mustapha GUITOUNI, accompanied by his staff. They had a working session on the energy situation of the continent and the development of renewable energies in particular, solar and wind energy as the main stake to keep our environment and the electrical interconnection between the regions of the continent, Europe and Asia.

In addition to promoting the use of natural gas for the industrial developement in the continent through Trans-Sahran gas pipeline, between Algeria, Niger and Nigeria. The Commissioner received from the Algerian of Energy a draft agreement for AFREC's head office that was prepared by the Algerian Ministry of Foreign Affairs. At the end of the meeting the Commissioner handed out to the Algerian Minister of Energy a Trophy in the occasion of celebrating the tenth AFREC anniversary.



- The Algerian Minister of Tourism and Handicrafts, H.E. Mr Hassen MARMOURI, for sharing fruitful exchanges of views on a number of issues of common intrest and the importance of tourism for the continent. H.E Mr MARMOURI was briefed on the operationalization of the tournism dossier, new to the AU Commission and the first African Conference on Tourism to be held in Zimbabwe from 13-14 May 2018.



- The Algerian Minister of Post, Telecommunications, Technology and Digital, H.E. Dr. Houda Imane FARAOUN, who informed her about the African DOT and the importance of ICT for the continent, the Program for the Development of Infrastructure in Africa (PIDA), the fiber optic link between Algeria, Niger and Nigeria.









# **African Union**

**African Energy Commission** 



AFRICAN ENERGY COMMISSION COMMISSION AFRICAINE DE L'ENERGIE COMISSAO AFRICANA D'ENERGIA اللجنة الأفريقية للطاقة



### PRESS RELEASE

Commissioner visit to AFREC at headquarters in Hydra Algiers, Algeria | 26 March 2018

The Commissioner visited the head office of the African Energy Commission (AFREC). She was briefed about what was done in 2017, the creation of the African Energy Efficiency Residential Sector, the planning for 2018 and the challenges by the Interim Executive Director. The Commissioner was also informed about the African Energy Statistics that was launched in 2012 and published annually as one of the pillars of the African Energy Information System (AEIS).





### THE MEETING

The Interim Executive Director of AFREC made a presentation on the AFREC activities already carried out and those of its 2018 program and he handed out a Trophy to the Commissioner, Mrs. AMANI Abou-Zeid to express, through this, that AFREC was very honored to welcome her, on this day of March 28th, 2018, at the AFREC Office in Hydra Alger, Algeria.







**Commission Africaine de l'Energie African Energy Commission** 



### INTRODUCTION

The African Energy Commission "AFREC", in collaboration with the International Energy Agency (IEA) and the Ministry of Energy of the People's Democratic Republic of Algeria organized the 1st Regional



Training Workshop on Collection Data Analysis of Energy Statistics Analysis and Energy Efficiency of the Residential Sector. The workshop was held from 27 to 29 March in Algiers, Algeria.

In 2017, the African Energy Commission has prepared a questionnaire to collect data on the energy efficiency of the residential sector in Africa. The questionnaire to collect data has been validated by AFREC. The IEA and National Focal Points during the four AFREC workshop and the questionnaire are now available in French and English versions. This questionnaire is subject to improvement during the year 2018.

The main program of AFREC in 2018 is twofold action: on the one hand, to train the Focal Points of Energy Efficiency on the use of this questionnaire and on the data collection of the residential sector, and on the other hand, to strengthen the capacity of the Focal Points of Energy Statistics to collect data and to such data especially for the elaboration of the National



AFREC's Energy Efficiency and Energy Statistics program, a series of training workshop on the Energy Questionnaire for the residential sector and elaboration of the National Energy Assessment with the calculation of CO2 emissions, will be held in 2018, thus to follow on Algiers Workshop (March 27-29 Mars 2018), AFREC is organizing three other Training Workshops in Kigali, in Libreville and one in Johannesburg.

### **OBJECTIVES**

- To strengthen the training of Focal Points for Energy Statistics in the collection of energy statistics data and in the preparation of the National Energy Assessment as well as in the preparation to estimate carbon dioxide (CO2) emission from the energy assessment data.
- To train the Focal Points of Energy Efficiency in the use of the AFREC questionnaire as well as the collection of data on the energy efficiency of the residential sector as well as the calculation of relevant energy intensity indicators and of Energy Efficiency.



### **PARTICIPANTS**

- 31 Focal Points from Ministries in charge of energy from African member countries,
- Mr Mimouni Sofiane, Director General "AFRICA" from the Ministry of Foreign Affairs of Algeria.
- Mr Jean-Yves Garnier, International Expert, AFREC Consultant
- 02 Experts from the International Energy Agency (IEA),
- 01 Consultant of the African Development Bank (Representation of Algeria), (ADB),
- 01 Representative of the General Director of the Agency (APRUE).
- 07 members of AFREC have organized the Workshop.

### OPENING CEREMONY & TRAINING SESSIONS

Three speeches were delivered at the opening session:

1 - Ms ROBERTA QUADRELLI, Head of the International Energy Agency delegation (IEA) affirmed the IEA's commitment to continue the long-standing cooperation in the field of energy statistics, including now the increased ambition to develop data on energy efficiency. Reliable data are indeed beneficial in priority for the countries, then for AFREC and Africa, and also for the International Energy Community.



Ms Quadrelli has especially pointed out that Africa is one of the most important regions for energy development in the world and certainly one of the IEA Agency's priorities as regards data capacity building. She expressed her pleasure to see for this workshop the joint presence of National Focal Points of Energy Efficiency and Energy Statistics and has underlined that cooperation between institutions at national and regional level is the key to success in terms of Data on Energy Efficiency.

2- Mr. Zoubir DJOUABRI, Representative of HE Mr. Mustapha GUITOUNI, the Minister of Energy of the People's Democratic Republic of Algeria underlined the importance of the Workshop to develop the capacity building of the AFREC Focal Points and African Energy Information System, in particular. Mr. DJOUABRI has in particular talked about the renewable energy program and energy efficiency in Algeria and appreciated the work done by AFREC, in particular on energy statistics and energy efficiency.



3- His Excellency Dr AMANI Abou-Zeid, Commissioner for Infrastructure and Energy, African Union Commission thanked the Government of the People's Democratic Republic of Algeria for hosting the Workshop and thanked the International Agency of Energy for its invaluable work and its continued support to AFREC for the development of African expertise capabilities.

His Excellency Dr. AMANI Abou-Zeid has stressed on the importance of the African Energy Information System for developing energy planning and policy development on the continent. She reiterated the importance of Energy Efficiency as a key to ensure a sure system, reliable, affordable and sustainable energy for the future.

She also underlined some issues regarding Africa's political position, namely, the universal access to modern energy services in particular electricity, energy poverty, renewable energy resources of the continent and the importance to exploit the huge potential of continental renewable energy to increase the rate of access to energy in African Countries.





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His Excellency, Dr. AMANI Abou-Zeid represented a trophy to Mrs the IEA Representative and another trophy to Mr. Jean-Yves GARNIER, the International Energy Expert on the occasion of the 10 Years of AFREC existence and officially announced the opening of the Workshop.







The workshop continued through 14 sessions under the supervision of AFREC staff.

### RECOMMENDATIONS

The participants made constructive recommendations to improve the process of data collection to feed and sustain the African Energy Information System "AEIS", it's especially question to:

- Strengthen cooperation between national services and national administrations in charge of statistics on energy but also socio-economic ones;
- ✓ Identify the gaps in terms of the data needed to establish energy efficiency indicators;
- Make decision makers aware of the importance of Energy Efficiency, as well as that of collecting the data needed to develop relevant efficiency indicators, starting with the residential sector;
- Promote the results of energy planning analysis studies and surveys specific residential;
- ✓ Integrate an energy efficiency component into national surveys (for example, population census);
- ✓ Launch campaigns (at the national level) for measures to reduce discrepancies between data estimation and actual observation of the situation;







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At the end of a round-table, the Focal Points for Energy Statistics have committed themselves to send to AFREC the "energy assessment" questionnaire for the last year as well as the missing historical data before the end of April 2018.

In addition, on the basis of the experience gained during the workshop, the Energy Efficiency Focal Points have committed themselves to send to AFREC, the completed questionnaire on the residential sector data for the 2015 and 2016 fiscal years, at the end of April 2018, so that AFREC will begin the process of validation and data processing.





# The 1st Workshop PRESS RELEASE...





AFRICAN ENERGY COMMISSION COMMISSION AFRICAINE DE L'ENERGIE COMISSAO AFRICANA D'ENERGIA اللجنة الأفريقية للطاقة



AFREC's Workshop on Energy Statistics and Residential Sector Data Collection on the Energy Efficiency Algiers, Algeria | 27<sup>th</sup> - 29<sup>th</sup> March 2018

Algiers, Algeria, on March 27th, 2018: The African Energy Commission (AFREC) organizes the first workshop in 2018, in collaboration with the International Energy Agency (IEA) and the Algerian Ministry of Energy, which is a Regional Training Workshop on "Energy Statistics and the collection of data on the Residential Energy Efficiency".

The workshop was attended by 45 participants from 17 countries from West African countries and francophone North
African countries as well the ADB and UNIDO from Algeria, Algiers offices.

AFREC has during the last ten years, trained more than 450 African Energy Experts on Renewable Energy Technologies and collection of Energy Statistics and Energy Efficiency Data through the organization of about 50 Workshops.

H.E Dr. AMANI Abou-Zeîd, Commissioner for Infrastructure and Energy at the African Union has honored, the AFREC workshop by her presence and at the end of her words, H.E opened officially the workshop.

Mrs. Roberta QUADRELLI Head of Delegation of the International Energy Agency (IEA), thanked AFREC and the Government of Algeria for hosting this workshop and inviting the IEA to take part to ensure the training. She re-affirmed the commitment of the International Energy Agency to continue the long-standing cooperation on energy statistics, now with the increased ambition to develop energy efficiency data. Better data will be beneficial for countries, first, and then for the international energy community. Mrs. QUADRELLI underlined that Africa is one of the most important regions for energy development and certainly one of the Agency priorities in the field of capacity building. She was pleased by the joint presence of Focal Points of energy efficiency and energy statistics and stressed that the cooperation among institutions at the national level will would be the key to success.

Mr. Zoubir DJOUABRI, Representative of H.E Mr. Mustapha GUITOUNI, Minister of Energy People's Democratic Republic of Algeria stressed on the importance of the workshop in order to develop the capacity building of the AFREC focal points and Africa Energy Information System in particular.

Mr. DJOUABRI, said a word about the renewable energy and energy efficiency program in Algeria and appreciated the work done by AFREC especially on energy statistic and energy efficiency.

H.E. Dr AMANI Abou-Zeïd, Commissioner in charge of Infrastructure and Energy at the African Union Commission thanked the Government of the People's Democratic Republic of Algeria for hosting this workshop and thanked the International Energy Agency (IEA) for its invaluable work and usual support to AFREC for the development in African Expertise capacities. H.E. Dr AMANI Abou-Zeïd, has underlined the importance of the African Energy Information System to develop energy planning and policymaking in the continent. She reiterated on the importance of the energy efficiency as the key to ensure a safe, reliable, affordable and sustainable energy system for the future.

H.E. Dr AMANI Abou-Zeïd, has also stressed on some issues concerning the political position of Africa. These issues concern mainly a universal access to modern energy services, especially electricity, the energy poverty, the renewable energy resources in the continent and the importance to exploit the huge continental renewable energy potential to increase the percentage of the energy access in the African Continent.

H.E. Dr. AMANI Abou-Zeïd, handed over a trophy to Mrs Roberta QUADRELLI, the Representative of the International Energy Agency "AIE" and another trophy to Mr. Jean Yves Garnier, International Energy Expert and Consultant of AFREC on the occasion of the celebration of 10 years of AFREC and announced the official opening of the Workshop.





Commission Africaine de l'Energie African Energy Commission



### INTRODUCTION

The African Energy Commission (AFREC) in association with the International Energy Agency (IEA) and the Ministry of Electricity and Renewable Energy of the Arab Republic of Egypt, organized the second Regional Training Workshop on Data Collection of Energy Statistics and Energy Efficiency of the Residential Sector. The Workshop was held from April 24<sup>th</sup> to 26<sup>th</sup>, 2018.



### **OBJECTIVES**

The main objectives of the workshop were as follows:

✓ To strengthen the training of Focal Points for Energy Statistics in the collection of energy statistics and the preparation of the National Energy Balance as well as the preparation of carbon dioxide (CO2) emission estimates from energy assessment data, Train the Energy Efficiency Focal Points on the use of the AFREC questionnaire Energy Efficiency Data Collection for the residential sector and calculation of relevant indicators of Energy Intensity and Energy Efficiency

### **PARTICIPANTS**

- fourteen (17) Focal Points from Ministries in Charge of Energy in African Member Countries;
- One (1) International AFREC Consultant;
- Two (2) Experts from the International Energy Agency (IEA);
- Two (2) RCREEE Experts (Regional Center of Renewable Energy and Energy Efficiency);
- Four (4) Experts from the Egyptian Ministry of Electricity and Renewable Energy;
- Four (4) AFREC Staff Members have organized the Workshop;







Commission Africaine de l'Energie African Energy Commission

### **OPENING CEREMONY & TRAINING SESSIONS**

Mr. MARZOUK Atef, Interim Executive Director of the African Energy Commission (AFREC) thanked the Government of the Arab Republic of Egypt for having hosted the workshop and thanked the International Energy Agency for its invaluable work and continued support to AFREC for capacity development of African Expertise.

Mr. MARZOUK Atef stressed on some questions regarding Africa's political position. These the questions were mainly based on the importance of having an Information System on African Energy to develop Energy planning and policy development on continent and universal access to modern energy services, in particular electricity, poverty energy, the continent's renewable energy resources and the importance of exploiting huge potential of continental renewable energy to increase the percentage of access to energy in the African Continent.



He has also sent a key message to focal points appointed by African Ministers in charge of Energy, namely that if AFREC does its part to train the focal points designated by the African Ministers of Energy, it is the duty of the Focal Points to fill out the questionnaires on energy statistics and energy efficiency and send them on time to AFREC to enable the publication of reports on statistics and energy efficiency in Africa.



In addition, Mr. MARZOUK pointed out that AFREC can install a database, country version and provide training for its management, but this must be done from an official request from this country.



Mrs. Ortega Pastor, Head of the Delegation of the International Energy Agency (IEA), thanked AFREC and the Egyptian Government for having hosted this workshop. She reaffirmed the commitment of the International Energy Agency to continue the long-standing cooperation with AFREC in the field of energy statistics. She emphasized the importance of reliable and quality data at national level and international level. Mrs. Ortega Pastor emphasized that Africa is one of the most important regions for energy development and certainly one of the IEA's priorities for strengthening data capabilities. She drew attention to the collaboration between national focal points in energy efficiency and energy statistics, stressing that this workshop offers an excellent opportunity to strenothen these links as the key to succes.





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Or. Mahmoud Hassanain, then gave a brief overview of Egypt's policy on renewable energy development and energy efficiency programs in Egypt. He has also recognized the value of the work done by AFREC, particularly on energy statistics and energy efficiency. At the end of his speech, Dr. Mahmoud Hassanain announced the official opening of the workshop.



Dr. Mahmoud then gave a short overview of Egypt's policy on development of renewable energies and programs related to energy efficiency in Egypt. He also recognized the true value of the work done by AFREC, particularly on energy statistics and energy efficiency. At the end of his speech, Dr. Mahmoud officially declared open the workshop.

A group photo followed the opening ceremony.



The workshop continued through 13 sessions under the supervision of AFREC staff.

#### RECOMMANDATIONS

The Participants made constructive recommendations to improve the process collect data to feed and sustain the African Energy Information System (AEIS). it is mainly question of:

- Creating or strengthening the Energy Information System (EIS) and integrating into national EIS the energy efficiency component;
- 2) Identifying the shortages in terms of data needed to establish indicators of energy efficiency;
- 3) Sensitizing the decision-makers on the interest of the Energy Efficiency, and on the collection of data necessary to elaborate relevant indicators of efficiency, starting with the residential sector:
- 4) Sensitizing the decision-makers and applying the enforcement of laws which would force the operators to provide data in the energy sector (electricity companies, oil companies and others public or private actors) and to promulgate laws in this sense when they do not exist yet;
- 5) Strengthening the statistical capacity of operators in the energy field;
- 6) Financing energy projects;
- 7) Other more specific recommendations were also listed and mentioned.







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After a round-table, the Focal Points of Energy Statistics have committed themselves to send to AFREC the energy assessment questionnaire for the last year as well as the missing historical data.

Similarly, on the basis of the experience gained during the workshop, the Focal Points of Energy Efficiency have committed themselves to send to AFREC the completed questionnaire on the data of the residential sector for the fiscal years 2015 and 2016.

AFREC therefore expects from these focal points these different questionnaires and will then start process of validation and data processing.



At the end of the training, the African Energy Commission handed out training Certificates to all the participants as thanks and congratulations.









PRESS RELEASE...



AFRICAN ENERGY COMMISSION COMMISSION AFRICAINE DE L'ENERGIE COMISSAO AFRICANA D'ENERGIA اللجنة الأفريقية للطاقة



# Workshop on Energy Statistics and Residential Sector Energy Efficiency Data Collection Cairo, Egypt | 24 - 26 April 2018

Cairo, EGYPT on April 24th, 2018: The African Energy Commission (AFREC) has celebrated the tenth anniversary and organized the second regional training workshop in 2018 on Energy Statistics and collection of data on the Energy Efficiency of the Residential Sector in collaboration with the International Energy Agency (IEA) and the Egyptian Ministry of Electricity and Renewable Energies. The Workshop has gathered 30 participants from 12 countries from Anglophone East African region and North African countries, for Renewable Energy and Energy Efficiency and UNIDO Offices in Egypt.

AFREC in the last ten years has trained more than 480 African Energy Experts to renewable energy technologies and collection of energy statistics and data on energy efficiency thanks to the organization of around 50 workshops.

Cairo, Egypt 24 April 2018: The African Energy Commission (AFREC) in the celebration of the 10 Years anniversary organize the second workshop in 2018 in collaboration with the International Energy Agency (IEA) and Egyptian Ministry of Electricity and Renewable Energy organized training workshop on "Energy Statistics and Energy Efficiency Data Collections".

The workshop was attended by 30 participants from 12 countries from East African Countries and Anglophone North African Countries, Regional Center for Renewable Energy and Energy Efficiency and UNIDO Egypt Offices. AFREC in the last ten years trained more than 480 African Energy Experts on renewable energy technologies and collection of energy statistics and energy efficiency data through the organization of around 50 workshops.

Mr. MARZOUK, Interim Executive Director of the African Energy Commission (AFREC) thanked the Government of the Arab Republic of Egypt for having hosted this workshop and thanked the International Energy Agency (IEA) for its invaluable work and continuous support to AFREC for the development African Expertise capacities. Mr. Marzouk, has stressed on some issues concerning the political position of Africa. These issues were mainly axed on the importance of having an African Energy Information System to develop Energy planning and policymaking in the continent and universal access to modern energy services, especially electricity, the energy poverty, the renewable energy resources in the continent and the importance to exploit the huge continental renewable energy potential to increase the percentage of the energy access in the African continent. Mr MARZOUK, has sent the AFREC key message to the focal points nominated by the African Energy Ministers that AFREC is playing its role to train the focal points designated by the African Energy Ministers, and that the role of each focal point is to fill the questioner on both energy statistics and energy efficiency and to send it at the right time to AFREC to update the data bank and allow to publish the report, by indicating that AFREC can install database country version and providing a training for its management upon an official request.

Ms. Ortega Pastor, Head of Delegation of the International Energy Agency (IEA), thanked AFREC and the Government of Egypt for having hosted this workshop. She reaffirmed the commitment of the International Energy Agency to continue the longstanding cooperation with AFREC in the field of energy statistics and to extend this cooperation to energy efficiency statistics. She emphasized the importance of good and reliable data at the national and international level. Ms. Ortega Pastor has underlined that Africa is one of the most important regions for energy development and certainly one of the IEA's priorities for data capacity building. She drew the attention on the collaboration between the national focal points in charge of energy efficiency and energy statistics, pointing out that this workshop provides a great opportunity to strengthen these ties, as the key to success.

Dr. Mahmoud Hassanaîn, Representative of H.E Dr. Mohamed Shaker, Minister of Electricity and Renewable Energies of the Arab Republic of Egypt, has stressed on the importance of the workshop to develop the capacity building of the AFREC focal points and Africa Energy Information System in particular. Dr. Mahmoud Hassanaïn, has given information about the renewable energy and energy efficiency program in Egypt and appreciated the work done by AFREC especially on energy statistic and energy efficiency and announced at the end of the opening session that the workshop is officially opened.

# COOPERATION PRESS RELEASE...





Meeting between His Excellency, the Egyptian Minister of Electricity and Renewable Energy and the Executive Interim Director of African Energy Commission (AFREC) Cairo, EGYPT | April 23<sup>th</sup>, 2018





Cairo, EGYPT, on April 23th, 2018, the Executive Interim Director of the African Energy Commission (AFREC), Mr. Atef MARZOUK paid a visit to His Excellency, Dr. Mohamed SHAKER, the Egyptian Ministry of Electricity and Renewable Energies.

Mr. Atef MARZOUK has been received by the Egyptian Minister of Electricity and Renewable Energies, Dr. Mohamed SHAKER, with the presence of his staff.

They have had a working session on energy around the continent and the development of the renewable energy especially on solar and wind electricity interconnection between the regions in the continent and have discussed about the future collaboration with the African Energy Commission (AFREC). H.E. Dr. SHAKER has appreciated the role played by AFREC for supporting the capacities of African countries. Dr. SHAKER, hopes to receive positive reply soon form the African Union Commission on hosting the Permanent Secretariat of the African Standardization Electro-technical Commission (AFSEC) in CAIRO.



At the end of the visit, Mr. Atef MARZOUK handed out a Trophy to H.E. Dr. SHAKER, in the occasion of the celebration of the tenth Anniversary of AFREC.









Commission Africaine de l'Energie African Energy Commission









# TRAINING ON GEOTHERMAL SCIENCE AND TECHNOLOGY FOR EASTERN AFRICAN COUNTRIES

Under the auspices of Interim Project
Coordination Unit (IPCU)-Africa
Geothermal Center of Excellence (AGCE)
March 2018
Kenya

### 1. Background

The African Energy Commission (AFREC) is an organ of the African Union in charge of ensuring, coordinating and harmonizing the protection, conservation, development, rational exploitation, commercialization and integration of energy resources in the African continent. AFREC was created in July 2001 in Lusaka by the African Presidents, and hosted by People's Democratic Republic of Algeria. AFREC was officially launched in February 17<sup>th</sup>, 2008, in Algiers, at the end of a Conference of African Ministers in charge of Energy.

AFREC mandated by its convention to promote the use of renewable energy resources in the continent and develop the capacities of the African Member States as well as the Regional Economic Communities (RECs).

The East African Rift System is endowed with a geothermal energy resource potential of about 20 GW that can be used for power generation and direct use application. Out of which, Kenya is generating about 676 MWe of electricity and 12 MWt for direct use application from geothermal resources. Ethiopia is following Kenya, with a geothermal pilot power plant with a total installed capacity of 7.5 MWe. Kenya has been generating electricity since 1981 and Ethiopia started in 1998. In recent years, significant interest has been developed and progress has been made in the Africa Region in terms of exploration and development of geothermal resource towards generation of electricity and direct use application.



In line with this, exploration for geothermal resources has also been conducted in other African countries such as Burundi, Comoros Islands, Djibouti, Democratic Republic of Congo, Eritrea, Malawi, Mozambique, Rwanda, Sudan, Tanzania, Uganda and Zambia. These countries are at various stages of geothermal exploration ranging from inventory of hot springs (e.g. Burundi) to detailed geo-scientific investigations; including drilling of exploratory wells (e.g. Djibouti, Tanzania and Rwanda). Many African countries have also made some direct uses of their geothermal resources. These countries include Algeria, Egypt, Ethiopia, Kenya, Morocco, Tunisia, and Zambia.

The presently generated 600+ MW of total installed geothermal capacity in the region is expected to increase by about 1550+ MW by 2025. This significant increase in geothermal power generation requires a substantial increase in African geothermal expertise in order to meet a Sustainable geothermal development that in turn contributes to Global Sustainable Development Goals 2030 and Continental development agenda of AU Agenda 2063. It is against this backdrop that African countries have agreed to set up the 'Africa Geothermal center of Excellence' that could serve as a vehicle to sustainably strengthen and enhance the capacities and skills of African youth in geothermal science, engineering and technology. This agreement was made during the First African Geothermal Center of Excellence (AGCE) Stakeholders Workshop held in Nairobi, Kenya in August 2015. Where the steering Committee of AGCE was established and led by the African Union Commission.





# Training on Geothermal

**Commission Africaine de l'Energie African Energy Commission** 

The AGCE steering committee members held a series of meetings since August 2015 where it made a decision to set up an Interim Project

The IPCU-AGCE had conducted a training needs assessment from participating countries upon which a training plan was developed for the interim phase of the AGCE. This assessment provides information on (i) 5 year strategic plan for geothermal exploration and development (power generation and direct use application); and (ii) the needs for training in each geoscientific, drilling and engineering fields in the coming 5 years. Further, the AGCE working group that comprises representatives of member countries, Ministry of Energy, GDC, KenGen and UN Environment.

In line with this, the Africa Energy Commission (AFREC) wishes to support and organize the first geothermal training as per the needs and requirements of countries under the auspices of IPCU AGCE in Kenya. This first geothermal training will be organized by the Africa Energy commission in collaboration with the Department of Infrastructure and Energy (Africa Union Commission) and UN Environment Africa office (through IPCU-AGCE).

#### 2. Objectives and training module

The training aims to strengthen and enhance the capacities and skills of African youth as per the needs and requirements from eleven Eastern Africa countries. It is expected that the trainees will have adequate knowledge and skill to work on geothermal projects of their respective countries after completion of this training.

This first training programme will focus on the IPCU-AGCE training Module of Level 1: a "21 Day Post Graduate Training Course on Geothermal Science and Technology leading to award of a Certificate". The course gives emphasis on both theoretical and practical aspects and field activities. The training Module is enclosed for ease of reference.

#### 3. Date and Venue

The duration for the training will be 21 days that is expected to start on 14<sup>th</sup> May 2018. The training will take place in Kenya using the existing KenGen and GDC training facilities.

#### 4. Expected Participants

The participants will be two representatives from each of the 11 Eastern Africa country namely: Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, Uganda and Zambia. It is expected that candidates for this course will be: not older than 35 and at least one of them from those countries will be a woman.

#### 5. Training Languages

The training will be conducted in English.

#### 6. Resource Materials for the training

Participants will receive all the resource materials during the training in Kenya.

#### 7. Expected Output

- Capacities and skills of African youth from selected African countries strengthened and enhanced;
- Trainees applied their knowledge and skills in the on-going and planned geothermal projects in their respective countries.

#### 8. Sources of Finance for the training

AFREC will bear the costs related to the training including; travel (Economy class air ticket), small pocket allowance, and accommodation, whereas the UN Environment Africa office, through IPCU AGCE, will cover the cost of Tuition fee for the training.





# **Training on Geothermal**

**Commission Africaine de l'Energie African Energy Commission** 

#### 9. Role of Partners

- AFREC: will send the official invitation to the Energy Ministers and other institutions of the 11 African countries; make travel arrangements for the candidates, pay small pocket allowance (40 USD/Day), local transport and accommodation.
- UN Environment Africa office (through IPCU-AGCE): covers the cost of Tuition fee for each nominated candidates from the eleven Africa countries, provide technical backstopping and quality assurance of the training.
- KenGen and Geothermal Development Company (GDC): Provide training facilities and training personnel, training resource materials, logistics within the training area and other support as required.



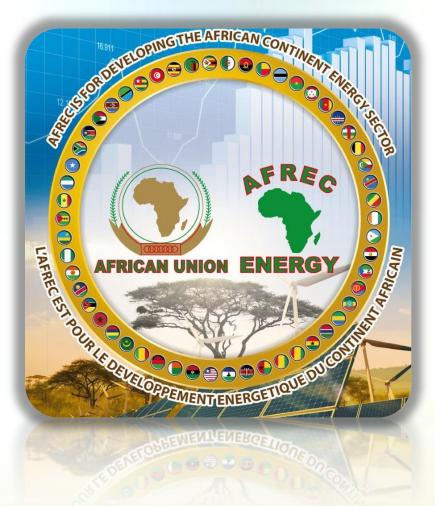


### Certificate Delivery =

Upon successful completion of this course, the participants will receive certificates acknowledging their successful completion of the Course which include AFREC and AGCE Logos.







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### AFREC LaLettre.... AFREC Newsletter

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