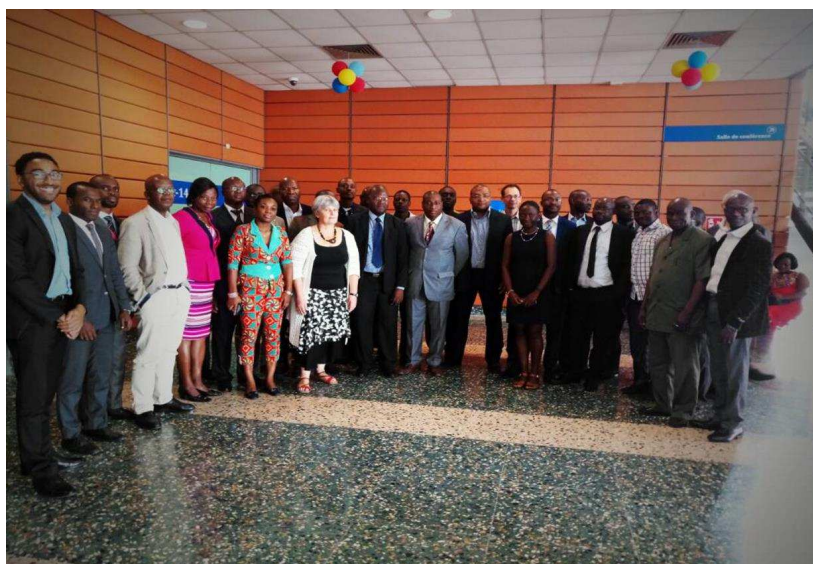


## Workshop on climate information and climate services needs of the energy sector at national level

Tuesday, December 12, 2017. Abidjan (Côte d'Ivoire)

### Contact:

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### 1. Background and justification

Renewable energies, by their nature of inexhaustible source of energy and little polluting, take more and more a place of choice in the social, economic and environmental system. Their protective role in the environment contributes to mitigation strategies in the face of global warming as they fueled the debates of the Paris Agreement.

At the regional level, the demand of the Economic Community of West African States (ECOWAS) for renewable energy is growing and the climatic issue (storm, lightning, rain, flood, etc.) influencing the production energy have led to the establishment of the National Framework for Climate Services (CNSC) initiated by the World Meteorological Organization (WMO/Global Framework of Climate Services).

### 2. Objectives

The purpose of this first meeting is to take stock of knowledge and the needs of stakeholders in climate information and in accordance with the National Climate Services framework (CNCS).

This will include a joint consideration of the concept of a platform that will provide climate services to support the use of an optimized combination of variable renewable energy sources under different generation, distribution and demand scenarios at the national level and regional.

### 3. Specific objectives

After a first inventory of the different energy production systems (hydroelectric power stations, dams, solar farms, etc ...) :

- .. To understand and share the meaning of the "Energy" platform of the National Framework of Climate Services;
- .. To exchange with stakeholders of the energy sector to understand how and for what purposes they use climate information (resource assessment, short or medium term forecast, climate change projection)
- .. To describe the needs and evaluate how this would help to address the limitations of existing renewable energy resource databases at the national and / or regional level;
- .. To exchange on the production potential of sustainable energy in quantity and quality in Côte d'Ivoire;
- .. To identify and discuss past, current or future projects related to a renewable resource or an energy mix;

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### 4. Expected results

The expected results of this day's discussion are:

- A mapping of priority meteorological / climate information needs (observations / outputs of models / forecasts / projections) and products to put on a platform or to develop;
- An update on existing data / analyzes / models and / or scientific prerequisites for the establishment of a renewable resources database;

### 5. The stakeholders and partners of the platform of deliberation of the energy sector

The stakeholders of the 'energy' sector, potentially involved in the construction of the platform, come from the Department in charge of energy, companies from the public and private sectors whose activities are related to the production and/or management of energy, etc. This is among other things:

- The Airport Exploitation and Development Company, Aeronautical and Meteorological (SODEXAM) / Department of National Meteorology of Côte d'Ivoire of the Ministry of Transport;
- The General Directorate of Energy of the Ministry of Petroleum, Energy and Renewable Energy Development;
- The Energy Company of Côte d'Ivoire (CI-ENERGIES) of the Ministry of Petroleum, Energy and Renewable Energy Development;
- The Ivorian Company of Electricity (CIE);
- The Ivorian Company of Production of Electricity (CIPREL);
- The Azito Thermal Power Plant (AZITO ENERGY);
- AGGREKO COTE D'IVOIRE;
- Institute for Research for Development (IRD);
- Universities;

### 6. Date of the meeting and distribution of participants

The meeting is scheduled for **Tuesday, December 12, 2017.**

## 7. Agenda

### 8:30 am - 9 am: Arrival of participants

### 9:00 am - 10 am: Opening

- 5 minutes: Director of the SODEXAM
- 5 minutes: representative of IRD

### Chaired by: General Director of Energy

- 10 minutes: Evolution of energy demand and the needs by DG Energy (Ministry of oil, the energy and the development of renewable energy);
- 10 minutes: Presentation of CI-Energy (the landscape of production purchase actors Exchange transport and distribution)
- 10 minutes : Presentation of the CNSC (SODEXAM)
- 10 minutes: Presentation of the approach of the ERACSES project and the regional demonstrator CGSC (climate services for energy)
- 10 minutes: Presentation of Weather Force for a demonstrator at the national level
- 10 minutes: Discussion

### 10:30 – 11am: Coffee break (Group Photo)

### 11: 00 - 12:30 pm: Some examples of use of climate information in energy production

- 10 minutes + 10 minutes Presentation Direction of renewable energy (Department of energy)
- 10 minutes x 4 (CIE, CIPREL, AGGREKO, AZITO) + Panel discussion 40 minutes the purpose of these presentations is to describe successful uses of climate information with practical examples where you have solved a problem with climate data. It would be interesting to describe uses where climate information was missing and which misled you.

### 12:30 – 2 pm: lunch break

### 2 pm to 4 pm: Working groups (GT1 and GT2) in parallel session

GT1: Uses for climate information (chaired by a SODEXAM and an IRD)

GT2: Climate information (chaired by a SODEXAM and an IRD) needs

### 4 pm - 4:30 pm: Coffee break

### 4:30 pm- 5:30 pm: Return of the WGs and plenary discussions

10 minutes + 10 minutes by GT 15 minutes discussion

15 discussion on the economic model

Closing of the workshop by Associate Director Sandrine Anquetin IGE (unit joint CNRS, IRD, Grenoble Institute of technology, University of Grenoble - Alpes) and Daouda Konaté, Director of the national meteorology).

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### 8. Axes of each WG discussions

### WG1: Uses for climate information (chaired by a SODEXAM and an IRD)

- a) Is climate information used or integrated in the decision-making process or in their operation in general (purchase, production, distribution, sale, etc.)
- b) If yes, how and when is climate information used? At what spatial / temporal resolution(s) climate information is used?
- c) Is climate information used raw or do you have post-processing models / tools to extract climate information that is more elaborate, more adapted to the uses, or derived, generic or dedicated indicators for a given use?
- d) For which problem(s) (eg optimization of production, processes, demand forecasting, current resource assessment / real-time forecasting / future projection?) is climate information being used and what does the information depend on this problem?
- e) Where do you get climate information (private observation network, SODEXAM, databases International (e.g. PVGIS, SolarGis, BD ECRREE), others...)?
- f) Give a level of quality or reliability to the climate data and information you already use? Do you have methods for correcting available climate information? what information or observations are used for this correction)
- g) In what forms do you receive the information or download it (via a private, public, paid, Email, etc ...)

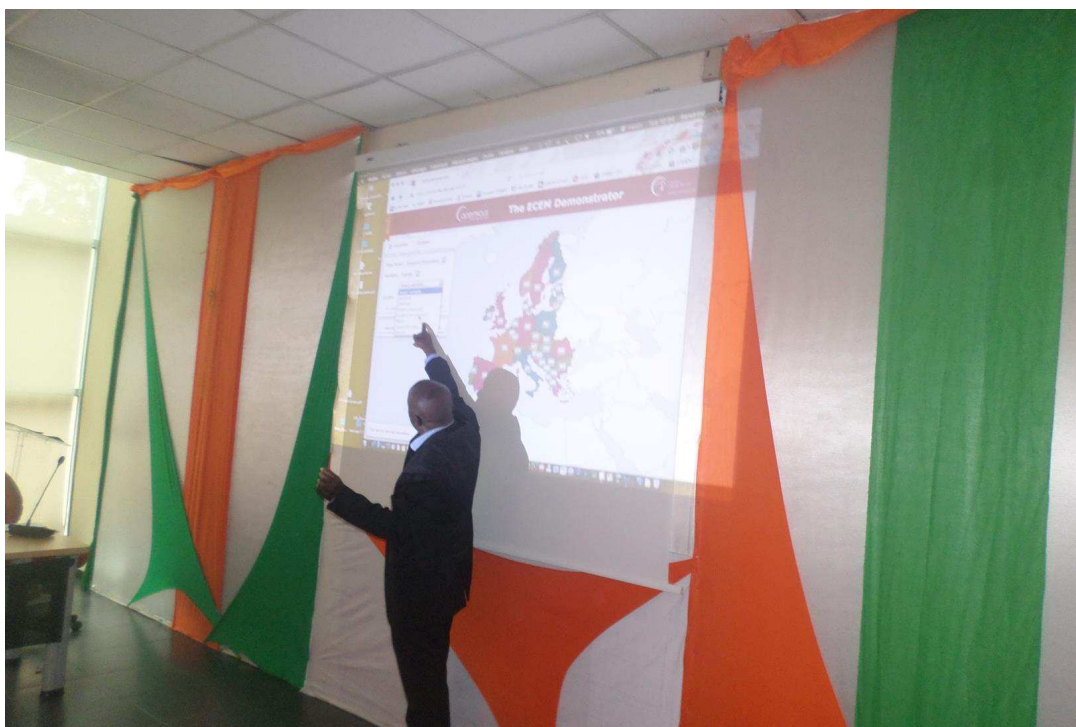
**WG2: Climate Information Needs (Chaired by SODEXAM and IRD)**

- a) Do you have training or information needs around the meteorological data or climate information that you already use (support for a better grip).
- b) Is there any additional climate data or information you would like to have?
- c) For which use?
- d) How: Operational or for medium and long term planning?
- e) In what forms do you want to receive climate information?
- f) What are the possible current barriers that prevent the use of climate information available today (for example: too much data mass, unsuitable file formats, raw data not informative / not adapted (lack of models / post-rations for the elaboration of elaborated data / indicators), insufficient data quality (eg bias, spatial resolution or erroneous temporality, non-informative / non-performing forecasts ...), uncertainties associated with data that is too large or unknown, ...?)
- g) What business models can be put in place to sustainably support the production and supply of climate services

**9. List of participants**

N°	NOM ET PRENOMS	FONCTION	INSTITUTION
1	EKLOU Ferdinand	Chef Service prévision générale	SODEXAM
2	MANOUAN Véronique	Chargée d'Etudes climatologique	SODEXAM
3	HIEN Sansan	Responsable Production	CIPREL
4	YOBO Hervé	Responsable Environnement	CIPREL
5	LOUKOU Arnaud Joël	Ingénieur Etudes produitos	CIE
6	AKA Nanguy M. Yves	Cadre Technique Hydrologie et Statistiques	CIE
7	DIBY Amany Aimé	Ingénieur Mouvement d'Energie	CI-ENERGIE
8	TANOI Ghislain	Ingénieur Statisticien Economiste	CI-ENERGIE
9	BONI Adipoh	Chef Service	CI-ENERGIE
10	NOUFE Djibril	Enseignant Chercheur	UNA
11	OYEDELE Sampson O	Chercheur	IREN
12	GBOSSOU K. Christophe	Chercheur	IREN
13	DIEDHIOU Arona	Chercheur	IRD/UFHB
14	ANQUETIN Sandrine	Chercheur	IGE/IRD
15	KONATE Daouda	Directeur de la Météorologie	SODEXAM
16	HOUGANY Jean Luc	Représentant IRD	IRD
17	OBAHOUNDE Salomon	Doctorant	CNCCI
18	TOURE N. Evelyne	Chercheur	CNC
19	SILUE Siélé	Enseignant Chercheur	UPGC-Korhogo
20	KOUADIO Boyossoro Hélène	Enseignant Chercheur	CURAT/UFHB
21	SOURSOU Julien	Directeur Technique	WEATHERFORCE

22	KOUAME Morton	Chercheur	UNA
23	CREUTIN Jean D.	Directeur de recherche	Université Grenoble Alpes/IGE
24	HINGRAY Benoit	Chercheur	Université Grenoble Alpes/IGE
25	SOUMAHORO Ahmed Lamine	Chef Bureau Hydrométéo	SODEXAM
26	KACOU Modeste Huberson Ahiba	Chercheur	LAPA-MF/UFHB
27	ASSAMOI Eric-Michel	Directeur de lutte contre les changements Climatiques	MINSEDD/DLCC
28	TRAORE Diakaridja	Enseignant Chercheur	LES/UFHB
29	TOURE Siaka	Enseignant Chercheur	LES/UFHB
30	DOSSO Moussa	CE	DGE
31	KOUMIE Guéi Guillaume Fulbert	SD de la promotion et du développement des Energies Renouvelables	DGE
32	N'GORAN Konan Norbert	Directeur Maîtrise de l'Energie et de ENR	MPEDER/DGE
33	BOHOUSSOU Kouassi L.	CE	DGE
34	KAMAGATE BAMORY	Vice Président Université de Man	U-MAN UNA
35	KANGA Brou Isidor	Chef Service Etudes	SODEXAM
36	APALO Hervé	Ingénieur Projets Productions	CI-ENERGIEs
37	KOMENAN Kouadio Boniface	Enseignant Chercheur Ressources naturelles et environnement	CIRES/UAO



*Arona DIEDHIOU introducing the ECEN demonstrator (Courtesy: Alberto Troccoli; University of East Anglia, UK)*

— Pièces jointes : —

Partie 1.2.2.1.4

0 octets