

Sustainable Energy for Africa

2017, October 23 – 25, Palace of the Academies, Brussels

**International Conference organized by
the “Royal Academy for Overseas Sciences” (RAOS) of Belgium**

CONFERENCE PROGRAMME

The conference papers are assigned as either lectures or poster presentations. The lectures will be delivered in plenary session in Auditorium Albert II of Palace of the Academies (no parallel session). If they wish, authors of posters will have a 5-minute time slot for oral presentation in the plenary session. The posters will be displayed in the Marble Room (same building as Auditorium Albert II) where also the Walking Dinner of 24/10 is organised. Later on, lectures and poster presentations will be peer reviewed before publication in a special issue of the Proceedings of the Royal Academy for Overseas Sciences of Belgium. One of the outcomes of the event could be the preparation of a “Massive Open Online Course” (MOOC) or a similar product in the subject domain, based on selected lectures and posters. Expressions of interest to participate in this MOOC should be sent to the KAOW/ARSOM Secretariat.

Registration and information: <http://www.kaowarsom.be/en/conferences>.

The conference will treat successively three Topics, consisting in a total of 30 invited lectures and 34 scientific posters, namely:

- Topic 1 - Energy is crucial for achieving the Sustainable Development Goals
(8 lectures and 12 posters, 23 October, late morning and afternoon)
- Topic 2 - Energy mix: towards robust, equitable and socially acceptable energy systems
(18 lectures and 15 posters, 24 October, whole day + 25 October, early morning)
- Topic 3 - Research, innovation and education in support of sustainable energy policies
(4 lectures, 25 October, late morning) – NB: 7 posters to be presented in “various”

There are also 5 keynote speeches in total: 3 in Introduction and 2 in Conclusion.
Closure of Conference is scheduled on 25 October at 16:30.

The registration fees (100 Euros for full participants) include the program folder and conference bag, entry into the conference and exhibit halls as well as the welcome reception of Monday evening. There are no registration fees for plenary speakers and authors of posters. Walking dinner in Palace of the Academies on Tuesday evening 24 October (40 Euros / person).

Monday 23 October morning, 10:00 – 12:30

Introductory session

3 keynote speeches (20 min each)

Chair: Prof. med. Dr. Philippe Goyens, RAOS, Permanent Secretary, and Prof. Dr. Wail Benjelloun, President Mediterranean Universities Union (UNIMED)

10:00 Georges Van Goethem, welcome message (Conference Chairman, RAOS)

10:15 **Carole Maman, Chief Investment Officer, Belgian Investment Company for Developing countries (BIO)**, representing Alexander De Croo, Deputy Prime Minister and Minister of Development Cooperation, Digital Agenda, Telecommunications, et al.

10:35 **The Demography of Africa: Impacts on Economy, Energy, and Governance**
John F. May, *Ph.D., Population Reference Bureau in Washington, DC, Visiting Scholar*

10:55 **African universities and science diplomacy in favour of alternative sources of energy (based on exchanges with 100 universities during COP22 in Marrakesh)**
Prof. Wail Benjelloun, President Mediterranean Universities Union (UNIMED), Former president of the Conference of the University Presidents of Morocco

Topic 1 - Energy is crucial for achieving the Sustainable Development Goals

3 lectures (20 min each) + Q/A session (15 min)

11:15 **Energy for sustainable development in Africa: successes, challenges and possible way forward**
Dr. Emmanuel Kofi ACKOM, E.K., Haselip, J.A and Mackenzie, G.A., UNEP, DTU Partnership (UDP), Technical University Denmark (DTU), Copenhagen

11.35 **Financement des énergies renouvelables en Afrique : principaux enjeux et perspectives d'avenir pour les partenariats-publics-privés sous l'angle européen**
Paul FRIX, Senior Economist, specialized in International Relations and Development, DG Hon. Coopération belge et CDE/CDI, Conseiller CBL-ACP, PROPADEV SPRL

11.55 **Governing decentralised energy provision: exploring the role of local governance in articulating nexus approaches to energy transitions**
Prof Ed Brown, National Co-Coordinator, UK Low Carbon Energy for Development Network, Jon Cloke, John Harrison and Richard Sieff (all four co-authors at Department of Geography, Loughborough University, UK)

12:15 Q/A session (15 min)

Lunch: 12:30 – 14:00

Monday 23 October afternoon, 14:00 – 18:00

5 lectures (20 min each) + Q/A session (30 min) + poster presentation (max 12)

Chair: Prof. Dr. Jan Rammeloo, RAOS, former Director of the Botanic Garden in Meise, and Dr. Koffi Ekouevi, Senior Economist, The World Bank

14:00 Centralized and decentralized energy solutions for Africa: cutting edge technologies supported by and co-developed with the African actors
Bruno BENSASSON, ENGIE, Africa Business Unit, CEO, Paris

14:20 Making Access to Energy Services the Engine of Sustainable Development in Sub-Saharan Africa
Dr. Koffi Ekouevi, Senior Economist, The World Bank

14:40 Industrial Strategy to identify priorities in energy mix policies in Africa as a result of joint discussions about local needs and resources
André Bouffioux, CEO, Siemens Belgium-Luxembourg (also responsible for the assigned countries: Algeria, Morocco, Tunisia and West-Central Africa)

15:00 Integrating Climate into Strategy for an Oil & Gas Company: focus on Africa
Valérie Quiniou, Vice-President, Climate - Strategy - Innovation, TOTAL S.A., Paris

15:20 Sustainable energy mix for African and MENA region countries
Prof. EL-Tayeb Idris Eisa, Ph.D. Univ. of Reading UK, National Energy Research Center, Khartoum, Sudan, and Prof. Dr. EL-Tayeb Mustafa, President of The Future University, Sudan, Former Director at UNESCO, corresponding member of RAOS

Coffee break: 15:40 – 16:10

Chair: Ir Bernard Mairy, expert in engineering and materials innovation, and Dr Ir Pépin Tchouate Heteu, DEECC Consulting (Energy, Environment, Climate change mitigation)

16:10 Q/A session (30 min) and Poster presentation in plenary session (80 min => 12 posters)

18:00 Adjourn - Networking reception in Palace of the Academies + visit to posters

Tuesday 24 October morning, 9:00 – 12:30

Topic 2 - Energy mix: towards robust, equitable and socially acceptable energy systems

7 lectures (20 min each) + Q/A session (20 min) + poster presentation (max 2)

Chair: Prof. Dr. Nathalie Verbruggen, RAOS, and Prof. EL-Tayeb Idris Eisa, Ph.D. Univ. of Reading UK, National Energy Research Center, Khartoum, Sudan

BACKGROUND

09:00 **Towards a global partnership regarding mineral resources and energy production: contribution to sustainable development with focus on Africa**

Prof Jean-Pierre Tshibangu, Univ. Mons, Faculty of Eng., Dpt of Mining Eng., RAOS

09:20 **Sustainable Energy Transition: An Operations Research Perspective**

Prof Per J. Agrell, co-director for the “Center of Operations Research and Econometrics” (CORE), Prof Anthony Papavasiliou, ENGIE Chair at UCL in Energy Economics and Energy Risk Management, and Ignacio Aravena, senior researcher, all co-authors with CORE - Louvain

09:40 **On Power System Paradigm: Opportunities and Challenges**

Aymen Chaouachi, PhD, EGI (Elia Grid International, Brussels), Power System Operations & Security

10:00 **Energy poverty in Africa: focus on challenges and solutions related to electric power and to energy for cooking**

Prof Samuele Furfari, Geopolitics of Energy, ULB, École polytechnique

Coffee break 10:20 – 10:50

10 :50 **Modèle de prospective énergétique avec évaluation des coûts et des effets sur l’environnement pour la République Démocratique du Congo**

Prof. Ndaye Nkanka Bernard, Institut Supérieur de Techniques Appliquées, Kinshasa

11:10 **Renewable energy deployment in Africa: opportunities, challenges & perspectives**

Dr. Ir. Pépin Tchouate Heteu, managing Director of DEECC Consulting (Energy, Environment, Climate change mitigation)

11:30 **Steel: a key resource for a sustainable and circular economy in emerging countries**

Carl De Maré, Vice-President ArcelorMittal, Group CTO, Head of Technology Strategy

11:50 Q/A session (20 min) and Poster presentation in plenary session (20 min => 2 posters)

Lunch 12:30 – 14:00

Tuesday 24 October afternoon, 14:00-18:30

7 lectures (20 min each) + Q/A session (30 min) + poster presentation (max 11)

Chair: Prof Dr. Ir. Eric Pirard, RAOS, Mineral Eng., Materials and Environment, ULg, and Prof. Dr. Izael Pereira Da Silva, Deputy Vice Chancellor, Strathmore Univ., Kenya

HYDRO

14:00 Hydro-electricity in Africa: remaining economically exploitable capacity and impact assessment study (including social acceptance)

Henri Boyé, USAID Electrification Advisor / Electricity Sector Reform Project, and Michel de Vivo, General Secretary of International Commission on Large Dams

14:20 Grand Inga, le plus grand complexe hydroélectrique du monde : ambition nécessaire mais à mûrir

François Misser, diplômé de l'École supérieure de journalisme de Lille, chercheur indépendant, spécialiste des relations entre pouvoir et ressources naturelles en Afrique

14:40 Using small low cost, robust and easily maintained decentralized hydraulic power stations in Central Africa

Prof. Patrick Hendrick, ULB, École Polytechnique

NUCLEAR FISSION

15:00 The development of Small Modular Reactors for emerging nuclear countries in Africa

Prof. Peter Baeten, SCK•CEN & VUB Kernenergie, and Prof. Hamid Aït Abderrahim, Deputy Director-General International Affairs SCK•CEN & UCL Ecole Polytechnique

Coffee break: 15:20 – 15:50

Chair: Ir Christian De Meyer, RAOS, EPFL and Columbia University, and Dr. Emmanuel Kofi Ackom, UNEP, DTU Partnership, Technical University Denmark

SOLAR

15:50 The potential and challenges related to photovoltaic electricity generation and local (DC) microgrids

Prof. Dr. Ir. Jozef Poortmans, Scientific Director PV@imec, Director R&D strategy@EnergyVille and Part-time Professor at KULeuven and Univ. Hasselt

16:10 The value of concentrated solar power for developing countries: another look on energy transitions

Marcel Bial, Secretary General of the European Solar Thermal Electricity Association

16:30 Development of solar energy in Africa : A challenge in terms of resource availability and recycling

Prof Dr. Ir. Eric PIRARD, RAOS, Mineral Engineering, Materials and Environment, ULg, and Dr Ir Sandra BELBOOM, chemical engineering, ULg

16:50 Q/A session (30 min) and Poster presentation in plenary session (70 min => 11 posters)

18:30 Adjourn

20:00 Walking dinner in Palace of the Academies (40 Euros / person) + visit to posters

Wednesday 25 October morning, 9:00 – 12:30

Topic 2 - Energy mix: towards robust, equitable and socially acceptable systems (cont'd)

4 lectures (20 min each)

Chair: Prof Emanuela Colombo, UNESCO Chair in Energy for Sustainable Development, Politecnico Milano, and Dr. Erick Tambo, United Nations University, Institute for Environment and Human Security, Bonn

BIOENERGY

09:00 **The bio-tech road towards sustainable energy – a possible frame for Africa**

Prof Willy Verstraete (UGent), Center for Microbial Ecology and Technology (CMET), Faculty of Bioscience Engineering at Ghent University

09:20 **Overview of bioenergy policies for sustainable development in Africa**

Rainer Janssen, PhD, Head of the Biomass Department at WIP Renewable Energies (WIP = “Wirtschaft und Infrastruktur GmbH & Co Planungs-KG”), Munich, Germany

09:40 **Wood: an ever-present domestic energy priority for people in emerging Africa**

Jean Noël MARIEN (*); Régis PELTIER (**); Emilien DUBIEZ (**); Théodore TREFON (***)

(*) Retired (since 1 October 2014) from « Centre de coopération internationale en recherche agronomique pour le développement » (CIRAD) UR Forêts et Sociétés – Montpellier France ; (**) CIRAD UR Forêts et Sociétés – Montpellier France ; (***) « Musée royal de l’Afrique centrale » (MRAC) - Tervuren Belgium

10 :00 **A locally manufactured gasification technology for the valorization of agricultural wastes in West African countries**

Prof Hervé Jeanmart (1), Séverin Tanoh (2), Wilfried Ouedraogo (3), Yohan Richardson (2), Sayon Sidibe (2), Frédéric Bourgois (1) and François Pinta (4)

(1) *Université catholique de Louvain, Louvain-la-Neuve, Belgium*; (2) *Institut International d'Ingénierie de l'Eau et de l'Environnement, Ouagadougou, Burkina Faso*; (3) *Institut de Recherche en Sciences Appliquées et Technologies, Ouagadougou, Burkina Faso*; (4) *Centre de coopération internationale en recherche agronomique pour le développement, Montpellier, France*

Coffee break 10:40 – 11:10

11:10 Q/A session (5 min) and Poster presentation in plenary session (2 in Bioenergy and 7 in “Various” / 45 min => 9 posters)

Lunch: 12:00 – 13:30

Wednesday 25 October afternoon, 13:30-16:30

Topic 3 - Research, innovation and education in support of sustainable energy policies

4 lectures (20 min each)

Chair: Prof Dr Pierre Petit, RAOS, former president (2016), and Prof. Ed Brown, UK Low Carbon Energy for Development Network

13:30 MOOCs for Africa: Lessons Learned

Dr Dimitrios Noukakis, program manager, Center for Digital Education (including “MOOC Afrique”), Ecole polytechnique fédérale de Lausanne (EPFL), and Prof. Pierre Dillenbourg, EPFL, academic director of Center for Digital Education (MOOC Factory)

13:50 E-Learning for Renewable Energy Higher Education in Africa: Challenges, Potential and Outlook

Dr. Erick Tambo, Lucy Larbi and Joerg Szazynski, United Nations University, Institute for Environment and Human Security (UNU-EHS), Bonn

14:10 Massive Open Online Courses : an answer to the issues facing higher education in sub-Saharan Africa ?

Nicolas Roland (responsible of "ULB Podcast"), Eric Uyttebrouck, ULB, Cellule PRAC-TICE (Pédagogie, Recherche-Action & TICE), and Prof. Philippe Emplit, ULB

14:30 Sharing knowledge online and improving education using MOOCs

Prof Sandra Soares-Frazão and Emeritus Prof Yves Zech, Génie Civil et Environnemental, UCL Ecole Polytechnique

Conclusion session (2 keynote speeches and final panel discussion)

Chair: Prof Dr Ir Jean-Pierre Tshibangu, RAOS and Dpt of Mining Engineering, Univ. Mons, and Dr Ir Georges Van Goethem, RAOS and former EC DG Research (Energy)

14:50 Performance and Impact Evaluation Framework: Measuring sustainable energy projects to orient strategies for access to energy

Prof Dr Emanuela Colombo, UNESCO Chair in Energy for Sustainable Development, Francesco Romeo, and Lorenzo Mattarolo, all three co-authors with Department of Energy, Politecnico di Milano, Italy, and Mariano Morazzo, Enel Foundation

15:10 Panel with session chairpersons, including brief communications from the floor and preliminary conclusions by rapporteur of MOOC Working Group

16:00 Jozef Smets, Belgian Federal Public Service, Foreign Affairs, Director for Africa, representing Didier Reynders, Deputy Prime Minister and Minister of Foreign Affairs and European Affairs

16:20 Concluding remarks by Scientific conference committee

16:30 Closure of Conference



POSTER PRESENTATIONS (34 in total)

Reminder: a 5-minute time slot will be allotted to each poster for oral presentation in plenary session (i.e.: approx. 5 PPT slides each)

Topic 1 - Energy is crucial for achieving the Sustainable Development Goals

Monday 23 October afternoon, 16:40 – 18:00 / poster presentation (max 12)

(1) Private sector involvement in energy production: experiences of the Belgian Development Agency from Rwanda and Mozambique

Muriel Lambert de Rouvroit, Frederik Van Herzeele, Benoît Legrand (as unit coordinator) and Paul Verlé (as head of department), all in Infrastructure and Environment Unit, Belgian Development Agency (BTC)

(2) Our goal: 600 million connected Africans connected to electricity by the year 2025

Smaïla Camara, ENA/Dauphine and HEC Paris Business School, Special Advisor to Jean-Louis Borloo, President of “Energies for Africa” (Ministre d’État, ministre de l’Écologie, 2007 – 2010, France)

(3) Collaboration between Northern and Southern organizations with the aim to facilitate and analyse technology impact on society

Prof Dr Ir Jean-Pierre Raskin (UCL Ecole Polytechnique) and Stéphanie Merle (Louvain Coopération)

(4) Barriers to the uptake of renewable energy in the East Africa region: an enabling environment, access to finance, awareness and access to technical support services

Prof. Izael Pereira Da Silva, B.Sc. (Eng), MSc., PhD in Power Systems Engineering from the Univ. of Sao Paulo (Brazil) Deputy Vice Chancellor, Strathmore University in Kenya

(5) Mapping of the European Portfolio of Energy Development Cooperation on behalf of the EU Energy Initiative

Fiona D. Wollensack, EU Energy Initiative - Partnership Dialogue Facility (EUEI-PDF), Brussels, and Niklas HAYEK, Africa-EU Renewable Energy Cooperation Programme (RECP) and EUEI PDF, c/o Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn, Germany

(6) AGORIA's views and technology contributions for energy and sustainability in emerging countries (in particular, Africa)

Christian DIERICK, Advisor, Agoria ("Development through technology"), Multisector Federation of the Technological Industry, Brussels

(7) Development of advanced energy technologies in Africa: success stories obtained and challenges left from both technological and managerial points of view

Peter Koninckx, Director Power Generation & Transmission Systems, Siemens

(8) Modern energy strategy implementation in Africa: success stories and challenges left in terms of central & decentralised power generation, integration of renewable energies, and power systems interconnections

Joseph Dubois, Product Director of Tractebel

(9) Growth, energy and climate: squaring the circle

Philippe Charlez, Mining Engineer, Senior Technical Advisor specialist of Unconventional Resources, former Rock Mechanics Expert in the Oil & Gas industry

(10) Role of renewable energies in the fight against global warming: the context of Africa

Prof Yezouma Coulibaly, PhD INP Grenoble, Institut International d'Ingénierie de l'eau et de l'environnement (2iE), Ouagadougou

(11) Generic lessons from EUROMED Research-to-Innovation projects in the field of Renewable Energy & Energy Efficiency: Innovation, Co-development, Capacity building

Claude Ayache, Senior Advisor, KIC InnoEnergy, Societas Europaea (SE), Business Development & European Affairs, Brussels

(12) Science and diplomacy in Central and Western Africa : remarkable achievements and challenges

César KAPSEU, Ambassador of science, and Liliane D. T. ATOUKAM, Humanities and Social Sciences, both with University of Ngaoundere (Cameroun)

Topic 2 - Energy mix: towards robust, equitable and socially acceptable energy systems

Tuesday 24 October morning, 12:10 – 12:30 / poster presentation (max 2)

BACKGROUND

(13) Industrial waste heat recovery – Innovative solutions for steel industry

T. Steinparzer, A. Fleischanderl, M. Haselgrübler, P. Trunner / Primetals Technologies, Linz, Austria GmbH / A joint venture of Siemens, Mitsubishi HI and co

(14) “Mini mill plants” for steelmaking: sustainable production of charcoal as fuel source while taking care of environmental and social issues in forest plantations

Roosevelt de Paula Almado, Health and Safety, Environment and Forest Research Manager, ArcelorMittal BioFlorestas Ltda., São Geraldo – Martinho Campos - Brazil

Tuesday 24 October afternoon, 17:20-18:30 / poster presentation (max 11)

HYDRO

(15) Variable-speed pumped hydro energy storage: bringing flexibility to the South African grid in order to accommodate future developments in nuclear energy and renewables

Thomas Mercier, PhD student & Research Assistant (Université Laval and Université catholique de Louvain)

(16) Archimedean screw turbine: opportunity for rural electrification in D.R. Congo ?

Prof. Jean Paul Katond Mbay, Université de Lubumbashi, DR Congo, and Prof. Patrick Hendrick (ULB - Belgium)

(17) Small hydropower development in Burundi

Jean Bosco Niyonzima (1), Patrick. Hendrick (1*),

(1) Université Libre de Bruxelles, Aero-Thermo-Mechanics, (ULB Polytechnic School), Belgium, and (1*) Promoter and Head of Department Aero-Thermo-Mechanics (ULB)

(18) Turbulent Hydro - Decentralized low-head micro-hydro power for Africa, inspired by nature

Geert Slachmuylders and Wim Verheirstraeten, Turbulent Hydro, Innovator Under 35 EU 2016, Best start-up in Start-up Nations Summit 2015

NUCLEAR FISSION

(19) Nuclear Energy and Sustainable Development in Africa: Challenges and Ways Forward

Vincent Lukanda Mwamba, François Kazadi Kabuya (1) and Petrus Bompere Lemo (2)

- (1) Commissariat Général à l’Energie Atomique, PO BOX 868 Kinshasa XI, DR Congo
(2) Comité National de Protection contre les Rayonnements Ionisants, Kinshasa, DR Congo

FUEL CELLS

(20) Fuel cells in emerging countries: a flexible device for the production of electricity from 1 W to tens of MWs

Dr. Jean-Luc Delplancke, Ecole Polytechnique - 4MAT, Université Libre de Bruxelles, former Programme Head of Unit of EU Joint Undertaking “Fuel Cells and Hydrogen”

SOLAR

(21) Solar thermal energy and molten salt storage (CSP+): a solution for dispatchable solar electricity generation

Michel LALMAND, Vice President Solar, Sales & Marketing, Cockerill Maintenance & Ingénierie (CMI)

(22) Concentrated Solar Power (CSP) technologies for electricity generation in Harare, Zimbabwe: comparison of two options, Solar Tower (ST) and Parabolic Trough (PT)

Luckywell Seyitini, Great Zimbabwe University, Department of Physics, Geography and Environmental Science

(23) Electricity and heat generation solutions from renewable energy sources for remote households in Central Africa

Maarten VERGOTE, Dr Ir, Major – Associate Professor, Department of Physics, Ecole Royale Militaire - Koninklijke Militaire School

(24) Development of energy efficiency and passive technologies in buildings for improving users' comfort: experience of the Belgian Development Agency in Uganda, Senegal and Palestine

Benoît Legrand (as unit coordinator) and Paul Verlé (as head of department), both in Infrastructure and Environment Unit, Belgian Development Agency (BTC), and Jan Van Lint, BTC- Uganda

(25) Affordable Mobile Solar Water Pumps for Small Farmers

Ahmed Abbas, SunCity Energy / The American University in Cairo, Egypt

Wednesday 25 Oct morning, 11:15 -12:00

Final poster presentation (max 2 in Bioenergy and max 7 in “various”)

BIOENERGY

(26) The cogeneration in sugar mill: an energetic deposit opportunity for sustainable development in Sub-Saharan Africa

KANA-DONFACK P., Prof. KAPSEU César and TCHEUKAM-TOKO D., University of Ngaoundere, Cameroon

(27) Bio-economic potential of alternative biofuel trees: an alternative liquid biofuel production model based on oily seeds of native tree species

Floris Dalemans, PhD student KUL, Prof. Dr. Ir. Bart Muys, Forest Ecology and Management, Division Forest, Nature and Landscape, Department of Earth and Environmental Sciences, University of Leuven (KU Leuven), Michael Jacobson, Professor at Pennsylvania State University, and Christine Magaju, World Agroforestry Centre (ICRAF)

“VARIOUS” (i.e.: beyond key Topics 1, 2 and 3)

(28) Hydrocarbon resources in the Democratic Republic of Congo – a potential source of development for the country?

Bernard RESPAUT, Chief Executive, European Copper Institute, Brussels

(29) Zero Emissions Energy in an African context

Tim Berckmoes, CEO / Gedelegeerd Bestuurder of Anglo Belgian Corporation (diesel engines for shipping, railways and power generators)

(30) Use of Distributed generation to improve operation of overloaded grids in Africa

Okana M.N., Kitoko L.S., Kamabu T., Atundezi A. G., Laboratoire de Génie électrique, Département d'Electricité, Faculté Polytechnique, Université de Kinshasa, R.D. Congo

(31) Linking Sustainable Energy with Soil Health and Carbon Sequestration through Frugal Innovation

Venkata Ramayya Ancha, Professor of Mechanical Engineering & Sustainable Energy Engineering, Institute of Technology, Jimma University, Ethiopia

(32) Building sustainable partnerships in EU-Africa Research and Innovation Initiatives: Experiences from a Finnish University Network

Eva Kagiri, Finnish University Partnership for International Development (UniPID), Senior Planning Officer FinCEAL Africa, University of Jyväskylä, Finland.

(33) Sustainability of Solar Mini-Grids in Nigeria

Adedoyin Adeleke and Chuks Diji (Centre for Petroleum, Energy Economics and Law, University of Ibadan, Nigeria) and Debora Ley (Central America Regional Clean Energy Initiative, Guatemala City, Guatemala)

(34) Historical path of sustainable energy promotion in African rural areas: case study with the FERDEDSI Network (« Forum Énergies Renouvelables pour le Développement Durable par la Solidarité Internationale »)

Dr Marthe Djuikom Vandenberg - FERDEDSI / IPEED (« Institut Populaire de l'Eau et l'Energie pour le Développement ») and PhD student Benjamin Bender – University of Kassel & Baobab e.V. (training centre and cultural encounter)

Venue of the event : Palace of the Academies (Palais des Académies)

Address : Rue Ducale 1, 1000 Bruxelles / Tel : (+32) 02 550 23 19

Conference programme and registration forms are posted in ARSOM - KAOW website:

- http://www.kaowarsom.be/documents/Conferences/Energy/PROGRAMME_SUSTAINABLE_ENERGY.pdf
- http://www.kaowarsom.be/en/registration_29092017#overlay-context=en/Sustainable_Energy_for_Africa

Conference organiser: “Royal Academy for Overseas Sciences” (RAOS) of Belgium

“Promoting scientific knowledge in overseas regions”

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- Prof. Dr. Jan RAMMELOO
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