



Clean Power

Energy Opportunities in West Africa

Nordic Energy Seminar in Abidjan 3 – 5 November 2015



With average growth rates of 4-6% annually and a vastly growing population, the demand for power in Africa has grown rapidly over the past ten years. As the continent is expected to double its population by 2050 and has a forward-looking perspective of 5% growth on average per year, this demand will continue to grow, creating an urgent need for investment in clean tech and new energy solutions. Fortunately, Africa has a significant share of the world's renewable energy potential and thus holds great opportunities for Nordic companies with substantial know how and technical solutions within the energy sector.

The Danish Embassy in Ghana and the African Development Bank (AFDB) are pleased to invite you to join our Nordic energy seminar in Abidjan, Côte d'Ivoire from the 3rd to the 5th of November 2015. The seminar will focus on energy investment opportunities in West African region and will give the participants a unique chance to learn more about Abidjan as an upcoming growth centre. The seminar targets Nordic companies engaged in the energy sector.

During the visit, participants will gain knowledge about the current challenges and experiences on the West African energy market, and will get an introduction to the financial opportunities and examples on how to make projects bankable. This will be facilitated by resource people from the private sector and a number of institutions including the AFDB, the Investment Fund for Developing Countries (IFU), USAID and the African Guarantee Fund (AGF). Furthermore, two days will be allocated for field visits to an oil refinery and larger infrastructure power plants, thermal, biogas and biomass in and around Abidjan.

To Sustain Growth Opportunities

The energy deficit in Africa remains very large. Only half of the population has access to reliable energy and over 620 million people live without the benefit of an electricity connection. However, the continent holds a significant share of the world's renewable energy potential, and many countries in West Africa seek to expand, stabilize and diversify their energy supply in an environmentally clean and cost effective manner. Within 20 years, renewables are expected to account for about 40% of total energy generation in Africa.

The seminar is organized by the Danish Embassy in collaboration with the African Development Bank and Centre de Promotion des Investissements en Côte d'Ivoire (CEPICI). The Business Delegation is open to Nordic business companies and affiliates and will be facilitated in English.

See programme on page 2.

We are looking forward to welcome you to Abidjan.

Danish Embassy

Registration: Event Manager Linda Kafui – linabb@um.dk. Price 15,250 DKK includes meals, accommodation at Sofitel Abidjan Hotel and transport in Côte d'Ivoire. Registration fee 1250 DKK (not refundable) – deadline 15 October 2015





3 November 2015: One day Energy Seminar at the African Development Bank HQ , Abidjan

- 08.30** Registration
- 09.00** Opening remarks and presentation of the Nordic Business Delegation
- 09.20** Introduction and welcome remarks by the African Development Bank and the Danish Ambassador
- ENERGY NEEDS IN AFRICA**
- 09.40** Africa outlook – Overview on Energy demand and current supply, African Development Bank
- 10.00** New deal on Energy 2025, African Development Bank
- 10.15** *Tea/Coffee break and networking*
- HOW DO WE FINANCE ENERGY PROJECTS IN AFRICA?**
- 10.45** Presentation of POWER for AFRICA (USAID)
- 11.05** Introduction to Africa Guarantee Fund (AGF)
- 11.25** Case story: Lake Turkana 250 MW Wind Park. Kenya. Danish Climate Fund (IFU) and Vestas A/S
- 11.45** Case story: Akouedo Biogas project 7.5 MW in Abidjan financed by BOAD. (Enviscan)
- 12.05** Presentation of the Sustainable Energy Fund for Africa (SEFA)
- 12.25** Discussion and questions
- 12.45** *Lunch break and networking*
- EMERGENT FINANCIAL PLAYERS ON THE MARKET**
- 13.45** India's financial engagement in West Africa
- COST OF DOING BUSINESS – HOW TO MAKE PROJECTS BANKABLE!**
- 14.05** Partial risk guarantees to stimulate private investment (Africa Development Bank)
- 14.25** Investment in West Africa (Banque Ovest Africaine de Development) (BOAD)
- 14.45** Development finance - Finnfund
- 15.05** Export Credit Facilities (EKF)
- BUSINESS OPPORTUNITIES AND CHALLENGES**
- 15.25** Doing business in West Africa – use of Private Equity Funds (PCM Capitals)
- 15.45** Case story: 28 MW Solar plant in Ghana. Ghana Capital Fund (GCF)
- 16.05** Nordic stronghold and opportunities
- 16.25** Reflections and closing remarks,
- 16.45** *Refreshment and networking*
- 19.30** Welcome dinner at Sofitel Abidjan hotel. Guest speaker: Infrastructure development in Abidjan



4 November 2015: Field visit Abidjan

- 9.00 CIPREL refinery. The Société Ivoirienne de Raffinage (SIR) refinery in Abidjan** is a complex hydrocracking refinery with a distillation capacity of 3 million mt/yr (60,000 bpd). The refinery began operation in 1965, and replaced the import system, the West African Replenishment Programme - (WARP,) that had been managed jointly by Shell (London) and Mobil (New York) since the 1950's.
- 12.30 Business lunch.** Doing business in Côte d'Ivoire by Ms. Solange Amichia, Deputy Chief Executive Officer of CEPICI.
- 14.30 Akouedo Biogas project. 7.5 MW** Initiated in 2012 by the Ivorian company ADERCI with support from the Danish company Enviscan. Sustainable Flaring of Methane at Akouedo Landfill based on extraction of landfill gas from on-going Clean Development Mechanism project, whereby landfill gas can be sold outside the CDM market. Director Kent Christensen, EnviScan. Financing BOAD.
- 17.30 Cocktail and networking reception** hosted by the Danish Honorary Consul Mr. Dominique Leroy from Maersk Line and the Danish Ambassador Ms. Tove Degnbol.
- Special invited guest from the business community.

5 November 2015: Field visit Abidjan

- 9.00 The Azito Thermal power plant**, located near the major port city of Abidjan, has been in operation since 1999. It is ideally sited close to both natural gas resources and a lagoon with the potential for the cooling of the power plant in the future. Converting the existing 288MW simple cycle plant to a 426 MW combined cycle power plant will increase its capacity by 138 MW. This is achieved by adding a condensing steam turbine, which is powered by the exhaust heat of the existing turbines. This increases power output by almost 50%, but uses no extra natural gas. The conversion will be complete in 2015. The expansion will create one of the most efficient power plants in West Africa, and provide a third of the electricity capacity in Côte d'Ivoire by 2015.
- 11.00 Visit to the Bollore Africa Logistics and APM Terminal and Port (APMT and MAERSK LINE).** Annual throughput exceeds 600,000 TEU's. New investment in pipeline to endow the port with a new deep-water container terminal capable to accommodating ships carrying up to 8000 TEUs instead of 3500 TEU as today.
- 13.00 Business Lunch and networking.** Special Guest Speaker: Banking sector
- 14.30 Visit to Biokala – SIFCA.** Began by Ivorian business Biokala in 2011, the Biovea project will be using 300,000 tonnes of biomass to produce around 288 gigawatt-hours of electricity and give Ivory Coast Africa's largest biomass facility.
- 19.30 Business Dinner.** Special Guest Speaker: EU Chamber of Commerce