



BRIEFING ON THE AFRICAN GLOBAL COMPETITIVENESS INITIATIVE (AGCI)

AFRICA INFRASTRUCTURE PROGRAM PROJECTS



The Africa Infrastructure Program (AIP) provides capacity building and late-stage transactional support services on clean and conventional energy projects to regional economic communities, host country governments, and private project developers in Sub-Saharan Africa.

The three-year program, which started in September 2008, is expected to add at least 1 GW of new generation capacity and leverage more than \$1 billion in new investment in a region where less than 25 percent of the population has access to commercial energy. AIP is operated in cooperation with USAID African regional and bilateral missions, and is funded for the most part under the African Global Competitiveness Initiative.

*AIP recently completed activities in Nigeria and Kenya and is currently providing services to several renewable and conventional energy projects in **Ghana, Nigeria, Mozambique, Namibia, Kenya, and South Africa**. It also supports electric sector capacity building initiatives throughout the region.*

*Discussions are under way on future potential AIP projects in **Zambia, Ethiopia, and Tanzania**.*

For more information on AIP, which is supported by Nexant, Inc., contact USAID/AFR/SD's Jeffrey Humber at 1-202-712-1153, jhumber@usaid.gov

http://www.usaid.gov/locations/sub-saharan_africa/initiatives/infrastructure.html

CURRENT PROJECTS

GHANA: TEMA IPPs - SUPPORT TO GRIDCO

AIP advisors are providing capacity building and transactional advisory services to the Grid Company of Ghana (GRIDCo) in their negotiations with two Ghanaian gas-to-power combined cycle IPP projects in Tema, Ghana. This work aims to reinforce GRIDCo's capacities and allow it to advance negotiations by helping these IPP projects achieve financial closure. AIP is advising the state-owned company, GRIDCo, in its discussions with GECAD and CenPower (private developers). The focus is on building local capacity with respect to the wheeling and grid connection, extending later to the gas sales agreements. AIP support is expected to result in the installation of 552 MW of new power, while leveraging approximately \$700 million in new investments and reducing GHG emissions by utilizing gas to produce electric power (via displacement of a larger number of smaller diesel generating plants). Reductions on the order of 1.7 million tons of CO₂ per year are expected.

Beneficiaries

GRIDCo

Assistance Provided

Capacity building and transaction support

Expected Benefits

Installation of 552 MW of new power, leveraging \$700 million in new investment, reduction of 1.7 million tons of CO₂

NIGERIA: GEOMETRIC POWER PROJECT

AIP is providing financial and regulatory advisors to the \$386 million Geometric Power Aba Ltd project (GPAL), which will generate and distribute power to industrial, commercial, and residential customers in Aba, Abia State, Nigeria. GPAL proposes to construct a thermal power plant with a capacity of 188 MW, an extensive new network of 33 kV lines, and a dedicated gas pipeline to a local Shell Petroleum gas station. Investors and lenders in GPAL include the International Finance Corporation, European Investment Bank, Emerging Africa Infrastructure Fund, and a syndicate of prominent Nigerian banks led by Diamond Bank and Stanbic IBTC Bank Plc.

Beneficiaries

Geometric Power

Assistance Provided

Transaction, financial, and regulatory advisors

Expected Benefits

Installation of a 188-MW power generation station that uses previously flared gas and results in a 40 percent net reduction in CO₂ emissions

KENYA: LAKE TURKANA WIND PROJECT TRANSMISSION LINE

AIP is providing capacity building assistance to Kenya's newly formed transmission company, KETRACO, together with transaction advisory to the government in BOOT and transmission arrangements related to the 300 MW Lake Turkana Wind Power Project (LTWP) in northwestern Kenya. The Ministry of Energy, Energy Regulatory Commission, and Kenya Power & Lighting Company strongly support this project, whose estimated cost is €459 million, excluding a planned €123 million, 400 km, 400 kV overhead transmission line from Lake Turkana to the Susua substation north of Nairobi. The proposed LTWP transmission line is key to the development and advancement of the LTWP and other renewable energy and geothermal project locations situated along the transmission line corridor and in the Great Rift Valley. LTWP will include the installation of 353 850-kW wind turbines seeking to exploit the very high wind speeds (11 meters-per-second) found in the Turkana corridor low jet stream. The renewable energy generated by LTWP will be fed into Kenya's national grid, contributing up to 25 percent of Kenya's electricity needs.

Beneficiaries

Kenya Electricity Transmission Company Limited

Potential Assistance

Capacity building and transaction support

Expected Benefits

Strengthened contract development and negotiating capabilities. Installation of 300 MW of renewable wind energy turbines

BOTSWANA: MMAMABULA POWER PROJECT

AIP is providing legal, financial, EPC, tariff, and environmental advisors to the Government of Botswana, assisting it in its negotiations with CIC Energy on the \$3.5-billion, 1300-MW Mmamabula power project in southern Botswana. The 1300-MW project will burn Botswanian bituminous coal, selling a quarter of its offtake to the Botswana Power Company and the remaining generation to South Africa's national utility, Eskom. When completed, the Mmamabula project is expected to be the largest IPP in Sub-Saharan Africa using the most recent coal burning technologies. The project is expected to create more than 10,000 new direct and indirect jobs for the country.

Beneficiaries

Government of Botswana

Assistance Provided

Technical and financial advisory services

Expected Benefits

Installation of 1300 MW of new generation, and the leveraging of \$3.5 billion in new investment

MOZAMBIQUE: WIND ENERGY CAPACITY BUILDING FOR MINISTRY OF Energy

AIP is supporting a capacity building initiative to reinforce the Ministry of Energy's efforts to establish a regulatory framework and negotiate the integration of the country's first wind energy generation project into the existing hydro-dominated electrical power system. This capacity building activity is intended to facilitate the government's ability to advance the structuring of projects on the coastal Inhambane and/or Ponta d'Ouro wind sites, which will constitute Mozambique's first wind IPPs, each with 30 MW of capacity. AIP assistance focuses on building local capacity to evaluate proposals, develop solicitations for new proposals, develop an appropriate wind power tariff structure and regulatory framework, and develop and negotiate project contracts such as power purchase agreements.

Beneficiaries

Mozambique Ministry of Energy, EDM.

Assistance Provided

Capacity building and transaction support

Expected Benefits

Strengthened capacity to regulate, negotiate, and develop wind power projects

NAMIBIA: ELECTRICITY CONTROL BOARD

Namibia lacks sufficient public capital resources to make the needed investments in its power sector. Accordingly, Namibia's regulator, the Electricity Control Board (ECB), has taken a positive approach to opening up the sector to private investment and IPPs, particularly in renewable energy. Although several wind projects are being explored/proposed, IPP investments have not materialized yet, as the ECB needs to further develop the regulatory and tariff framework for IPPs in general, and for integrating wind power, in particular. Developers in negotiation with the offtaker, Nampower, expect the framework to be in place prior to their completing key project agreements. AIP's proposed capacity building assistance will equip the ECB with the background on international best practices in the relatively new field of renewable energy integration, which is needed to establish a receptive investment framework and create an enabling environment to mobilize financing. With USAID assistance, Namibia's power sector can move beyond its current power monopoly structure and develop IPPs under commercial, project finance arrangements and with model contracts and tariffs that can provide the framework for future renewable energy projects.

Beneficiaries

Electricity Control Board of Namibia, Nampower

Assistance Provided

Capacity building and transaction support

Expected Benefits

Strengthened capacity to regulate, develop, and finance renewable energy projects

NIGERIA: GAS FLARING REDUCTION AND RENEWABLE ENERGY

Through the Nigeria Energy & Climate Change (ECC) program, AIP seeks to contribute to gas flaring reduction through monetization of the Associated Gas currently flared on the Nigerian oil fields and channeling the “dry gas” to Nigerian power plants. AIP chose to work “on the ground” by identifying barriers along the associated gas-to-power chain. In supporting the Independent Power Producers Association of Nigeria (IPPAN) in the development the Nigerian IPP market, AIP will address identified barriers directly and work with IPPAN members to overcome them. AIP’s assistance also aims to enhance the Government of Nigeria’s appreciation of IPP potential, establish models for bankable PPAs and other IPP project agreements, give advice on a framework and methodology for cost-reflective tariffs that ensure commercial viability of IPP projects, and assist with specialized project finance techniques for prospective IPPs that fit commercial criteria. By advancing the development of a domestic Nigerian natural gas market, it is expected that AIP assistance will contribute to the creation of 3,000 new jobs and help eliminate gas flaring in Nigeria, potentially reducing carbon emissions by 23 million tons of CO₂ per year. Stakeholders include IPPAN, the Ministry of Power, the Ministry of Petroleum Resources, the Nigerian National Petroleum Corporation, project developers, the Nigerian Electricity Regulatory Commission, and the World Bank. The ECC program also includes support provided to renewable energy IPP projects in Nigeria.

Beneficiaries

Independent Power Producers Association of Nigeria, Ministry of Power, PHCN

Assistance Provided

Capacity building and technical consulting services

Expected Benefits

Development of Nigerian IPP market, significantly reduced gas flaring, and the installation and construction of new Nigerian IPPs using previously flared gas

GHANA: ADVISORY SERVICES FOR THE DEVELOPMENT OF THE O&G INDUSTRY

AIP is providing capacity building and advisory services to the Ministry of Mines and Energy of Ghana (MME) in the framework of the accelerated greenfield development of the oil and gas sector of Ghana, resulting from recent important discoveries made on the Jubilee and other oil and gas fields offshore Ghana. The general objectives of the technical assistance are to reinforce the capacities of the MME and to assist the Minister in defining and conducting institutional, regulatory, and commercial strategies in the development of the O&G sector. The assistance will help the Minister to prepare and make decisions that reflect international best practices, and it will train Ghanaian officials and local businesses in the development of the country’s oil and gas sector. Expected benefits from this assistance include the creation of a sustainable hydrocarbon regulatory framework; alignment of Ghanaian oil and gas environmental laws and regulations with international standards; improved sector competence within the Ministry of Energy and specialized Ghanaian institutions; and increased utilization “associated gas” to avoid gas flaring and the replacement of liquid fuels by natural gas in national thermal plants. Additional benefits include the creation of a national gas processing and transportation system and the optimization of Ghana’s national resources and financial flows into the national economy, with an emphasis on utilizing Ghanaian human potential and the creation of a national oil and gas workforce.

Beneficiaries

Ministry of Mines and Energy

Assistance Provided

Technical consulting services and capacity building and training

Expected Benefits

Accelerate creation of a hydrocarbon regulatory framework, and monetization and increased use of otherwise flared associated gas

SOUTH AFRICA: ADVISORY SERVICES FOR INDEPENDENT POWER PRODUCERS

AIP advisors are supporting a capacity building and transaction advisory initiative to strengthen the capabilities of the Department of Energy and other associated government agencies in South Africa to address structural issues imbedded in the current set-up of the country's energy sector and, by virtue of South Africa's role as a key regional offtaker, in the broader Southern Africa region. The program is designed to assist the Department of Energy, as the policy setting body for the sector, consider various structural and policy aspects to usher in Independent Power Producers, the diversification into new Renewable Energy resources, and the associated enabling policies. The assistance will also help the National Electricity Regulator of South Africa (NERSA) implement the policies to be adopted and the National Treasury review, structure, and approve the implementation of projects by Independent Power Producers to benefit from such new policies.

Beneficiaries

Department of Energy, NERSA, National Treasury, Independent Power Producers

Assistance Provided

Capacity building and enabling policy advisory services

Benefits

Strengthen energy sector enabling policies for Independent Power Producers and diversify into Renewable Energy resources

RECENTLY COMPLETED PROJECTS**NIGERIA: ADVISORY SUPPORT SERVICES TO NIGERIAN GAS AND POWER SECTORS**

Working with the USAID Mission in Nigeria, AIP supported the World Bank through its analysis of the critical issues and risks associated with the provision of World Bank Partial Risk Guarantees (PRG) for Nigeria's gas and power sectors. The AIP analysis covered industry structure, Nigeria's new gas policy, gas supply and transport agreements, as well as the electricity sector and the new multi-year electricity tariff order. At the United States–Nigeria roundtable for energy and climate change in May 2009, the World Bank advanced that it had approved \$600 million in support of the power and gas sectors, of which \$400 million will be used for the gas sector PRGs and \$200 million will be extended in the form of soft credit IDA loans.

Beneficiaries

World Bank

Assistance Provided

Energy sector analyses

Benefits

Leveraging \$600 million in potential new investment risk guarantees in the Nigerian electricity and gas sectors

KENYA: RENEWABLE ENERGY WORKSHOP IN NAIROBI

AIP organized and conducted a two-day workshop in Nairobi for senior representatives of Kenya Power and Lighting Company (KPLC), Kenya Generating Company (KenGen), and officials from the Ministry of Energy. The workshop focused on identifying the unique features and considerations that differentiate renewable energy projects from other commercial electricity generating technologies in terms of using nonrecourse project financing. Working in conjunction with General Electric, the AIP workshop hosted by KPLC brought together solar, hydro, and wind technology specialists, experts in project finance and public-private partnerships, as well as senior officials from Namibia and Mozambique who are participating in current wind energy project negotiations in those countries.

Beneficiaries

Kenya Power, KenGen, Ministries of Energy Kenya/Mozambique, Namibia ECB

Assistance Provided

Technical workshop

Benefits

Increased hands-on knowledge of renewable technologies and related financing