

## **PUBLIC PROJECT SUMMARY**

Project Location: Benin City, Nigeria

Name of Applicant: Azura Power West Africa Limited

Name of the Project: Azura Edo IPP

Project Description: The Project involves the construction and operation of a 450 Mega Watts electricity (MW<sub>e</sub>) generation power plant which will be located near Benin City, Edo State, Nigeria and under the jurisdiction of Uhumwode Local Government Area Council. The Project consists of three combustion turbines in open cycle mode, a short transmission line of approximately 1 kilometer (km) in length connecting the power plant to the adjacent Benin North Substation, and a short gas pipeline spur (1 km in length) connecting the power plant to the Escravos Lagos Pipeline System. The main fuel for the Project will be natural gas; however, the plant will use light distillate oil (diesel) for start-up. The Project site is adjacent to the Ihovbor Power Plant which is being operated by the National Integrated Power Project (NIPP).

**Screening:** This Project has been reviewed against OPIC's categorical prohibitions and determined to be categorically eligible. The Project has been screened as Category A because its greenhouse gas emissions exceed 100,000 tons of carbon dioxide equivalent (CO<sub>2eq</sub>) per year. The Project's potentially significant impacts include: nitrogen oxides (NO<sub>x</sub>) emissions and their impact on ambient air quality; water usage and effluent discharges; solid and hazardous waste disposal; handling of hazardous materials (flammable materials such as natural gas); noise; economic displacement of the Ihovbor community; influx of construction workers; construction traffic; occupational health and safety during both construction and operations, life and fire safety; and protection of cultural property.

**Applicable Standards:** OPIC's environmental and social due diligence indicates that the Project will have impacts that must be managed in a manner consistent with the following IFC's (IFC) 2012 Performance Standards (PS):

PS 1: Assessment and Management of Environmental and Social Risks and Impacts;  
PS 2: Labor and Working Conditions;  
PS 3: Resource Efficiency and Pollution Prevention;  
PS 4: Community Health, Safety, and Security;  
PS 5: Land Acquisition and Involuntary Resettlement; and  
PS 8: Cultural Heritage.

A detailed site survey did not identify any biodiversity or living natural resources which need to be conserved. Also, the Project does not involve impacts on Indigenous Peoples, as defined by the IFC; the ethnic groups in the immediate vicinity of the Project site share a common ancestry, the Edo language, and socio-economic practices. Therefore, Performance Standards 6 and 7 are not triggered at this time.

Consistent with the requirements of PS 3 (Resource Conservation and Pollution Prevention), the Project is required to meet applicable provisions of the IFC's General Environmental Health and Safety (EHS) Guidelines (2007) and the EHS Guidelines for Thermal Power Plants (2008).

**Environmental and Social Risks and Mitigation:** Ambient air quality impacts will be managed using the appropriate technology for controlling nitrogen oxides emissions. Emissions of particulate matter and sulfur oxides are not of concern because natural gas will be used as the fuel. Greenhouse gas emissions will vary depending on the operating hours of the facility. Under the worst case scenario, CO<sub>2eq</sub> emissions will be less than 2.5 million tons annually. Modeling indicates that noise from the Azura power plant alone will comply with the recommended IFC guidelines; however, cumulative noise levels after considering noise from the adjoining NIPP may exceed the IFC's Guidelines at four farms in a nearby village. Additional studies are being undertaken to verify noise impacts and appropriate mitigation measures will be implemented, if needed.

Site disturbance primarily involves clearing of vegetation in the area. No sensitive fauna or flora were discovered during the detailed site survey but a Biodiversity Management Plan will be developed for the management of any valuable species discovered during site clearing. Water will be abstracted from a deep aquifer which will not impact any nearby users who use a shallow aquifer for their water needs. Treated wastewaters complying with the IFC's Guidelines will be discharged in an open channel which is currently being used by the adjacent power plant to discharge their wastewaters. Both municipal and hazardous waste disposal facilities will be used for the disposal of solid and hazardous wastes. A hazardous materials management plan, an occupational health and safety plan (OHSP), and an emergency response plan are being developed to manage risks associated with the handling of natural gas, including the risk of fire and explosion. The OHSP will address safety issues during both construction and operations. Azura has committed to providing appropriate personal protective equipment, training of all site personnel, and adoption of standard safety procedures during all stages of the Project.

A Resettlement Action Plan (RAP) that includes a Stakeholder Engagement Plan has been developed to manage the economic displacement of the Ihovbar-Evboeka community. Land will be acquired from the Ihovbor community, but the land acquisition will not require resettlement as all the people (except the community priest) live in Benin City or elsewhere. A RAP Addendum addresses the need to compensate the Ihovbor community. All the affected persons in the Ihovbor community have been fully compensated and the Independent Consultant along with the Community Working Group witnessed the compensation process which was undertaken during the week of May 26 - 30, 2014.

In order to manage the construction impacts to acceptable levels and ensure compliance with the IFC's Performance Standards and Guidelines, Azura is also preparing a construction worker housing plan, a traffic management plan, and a cultural property management plan. The Engineering, Procurement, and Construction (EPC) Contractor has committed to complying with IFC's Performance Standards and Guidelines and ensuring that community impacts are minimized.

#### Social and Environmental Assessment and Management System

The Project has developed a social and environmental management system whose components will be further developed as the Project progresses. The Project has prepared an Environmental Impact Assessment (EIA), which met the requirements of both the World Bank Group's recommended ESIA process and the Nigerian regulations. The Project is in the process of

appointing relevant environmental and social officers to assist the Country Director who is currently managing E&S issues with the aid of consultants. The Project has prepared plans for an effective organizational structure to manage environmental and social risks. In addition, a preliminary Environmental and Social Management Plan (ESMP) has also been prepared to manage the Project's environmental and social impacts. A Stakeholder Engagement Plan has also been prepared and it is currently being implemented. In addition, the Project has established a grievance mechanism to receive and address any concerns from the stakeholders. The Project team has prepared frameworks for monitoring and reporting on the environmental and social impacts.

#### Environmental and Social Management Plan (ESMP)

The Project's detailed ESMP is being prepared and it will present additional information on the monitoring of mitigation measures which have been designed to reduce Project's impacts to acceptable levels and in compliance with IFC's Performance Standards and Guidelines. Additionally, the Project will provide OPIC with annual reports summarizing the Project's environmental and social performance and demonstrating compliance with the IFC's Performance Standards and Guidelines. The Project will also be required to conduct an independent third party audit of its monitoring data to verify compliance with environmental and social covenants in the Common Terms Agreement (CTA).

**OPIC Site Visit:** OPIC staff undertook an environmental and social due diligence site visit from May 29 to 30, 2014. Meetings were held with the local Project team, the Ihovbor community, Independent Consultant (Royal Haskoning), IFC, and with the residents of nearby Orior and Idunmwowina communities.

**Community Consultations:** Several public consultation meetings have been held since May 2010 to identify the concerns of the nearby residents regarding the Project. These meetings have identified all the impacted persons and the Project has held consultations with each potentially impacted household. Additionally, house to house meetings with the people from the three nearby communities were undertaken to explain the Project and its expected impacts and to independently solicit input from the vulnerable members (females, old persons, and disabled persons) of the community. Informal meetings are continuing between the Project team and the communities through the already established stakeholder engagement process.