



Introduction

Cenpower Generation Ltd (Cenpower) is a Special Purpose Vehicle created to develop the Kpone Independent Power Plant (KIPP), a 350MW Combined Cycle Gas Turbine (CCGT) plant, in Tema, Ghana.

The Kpone Independent Power Plant, which achieved Commercial Operations in June 2019, is among the largest IPPs in the country accounting for approximately 10% of Ghana's total installed capacity and approximately 15% of its available thermal generation capacity.

As a Combined Cycle Gas Turbine (CCGT) plant, it is amongst Ghana's most fuel-efficient thermal power stations. The power plant is a critical base-load component and has met Ghana's growing electricity demand.





Background of the Project

- The project is a 350MW Combined Cycle Gas Turbine (CCGT) power plant with multiple fuel (light crude oil, distillate and natural gas) operating capability, a 161kV substation for power transmission and light crude oil fuel storage, supply, delivery and treatment facilities.
- The project was largely owned by African equity partners and funded by African banks (21% owned by Cenpower Holdings and 47% owned by the AFC and AllF) and it was constructed by an African construction company.
- Achieving financial close was a very complex and challenging process. The project took ten years from inception to financial close.
- The key challenge being the demonstration of the financial viability of the project in order to get the financing institutions to commit to funding.

- Cenpower worked extensively with the Off-taker (the Electricity Company of Ghana), and other stakeholders, looking at different contractual structures, to create a complex suite of contractual arrangements to enable financial institutions approve the funding for the project.
- The AFC provided critical financial backing and knowledge support that proved extremely crucial for the success of the project.
- The Dutch FMO also provided a lot of crucial earlystage support.
- Ultimately, project partners credit the legal, technical and financial professionals that worked on developing the KIPP plant for its success.



Profile Of Project Partners

Prior to financial close, the project was a partnership between Cenpower Holdings (the project sponsors), InfraCo and the AFC. Through equity injection, the Sumitomo Corporation, African Infrastructure Investment Fund II and the Dutch FMO joined the project in 2014, while InfraCo exited.

Cenpower Holdings is an SPV, established in 2010 as a vehicle for the founding shareholders - a group of Ghanaian entrepreneurs

The AFC is a multilateral finance institution, established in 2007 to be the catalyst for private sector infrastructure investment across Africa.

The Sumimoto Corporation is Cenpower's Strategic Technical and O&M partner. It is one of the leading IPP developers, with interests in more than 6,300MW of net installed capacity worldwide.

The AIIM invests long-term institutional unlisted equity in African infrastructure projects through its African Infrastructure Investment Fund 2 (AIIF2).

The Dutch FMO is the Dutch development bank. It supports sustainable private sector growth in developing and emerging markets by investing in ambitious entrepreneurs..







Enriching lives and the world







30th November 2018:

Evolution of Cenpower Electricity Generation Company (Kpone IPP)

Termination of the EPC August 2014: EPC Contract signed January 2015: Contractor's Engagement with Group Five InfraCo joined the AFC acquired a Groundand commencement of September 2014: Equity Close controlling stake in breaking the Step-in phase. After founding October 2014: Debt/Financing **Cenpower Generation** shareholders as a Cenpower, becoming termination, step-in team ceremony to documents signed the project lead took over and completed **Company Limited** signify start of project development developer and 23rd December 2014: Financial outstanding works over Established by founding project the course of 7 months. arranger of financing construction. shareholders. partner Close 2009 2010 2012 2013 2014 **Detailed engineering** 23rd December 2014: Notice Initial technical studies, June 2012: 20 year take-orpay PPA executed with ECG including site selection, studies, social and to Proceed issued to Group 10th June 2019: as off-taker for 325MW preliminary engineering environmental assessments Five and project Achievement of and environmental completed. 200MW PPA construction phase contractual capacity. Commercial commenced and lasted for studies conducted. executed with ECG and EPC **Operations Date** October 2012: Approval of 44 months. under the PPA procurement process

Government Consent and

Support Agreement (GSCA)

commenced.

Kpone IPP: Project Milestones

- June 2012: Power Purchase Agreement (PPA) signed with ECG
- August 2014: Engineering, Procurement and Construction (EPC) Contract signed with Group Five
- October 2014: Debt/Financing documents signed
- December 2014: Notice to Proceed issued to Group Five
- January 2015: Ground-breaking ceremony
- November 2016: Completion & Handover of Collector Substation to GRIDCo
- November 2018: Termination of the EPC Contractor's Engagement
- 10th June 2019: Achievement of Commercial Operations Date(COD)

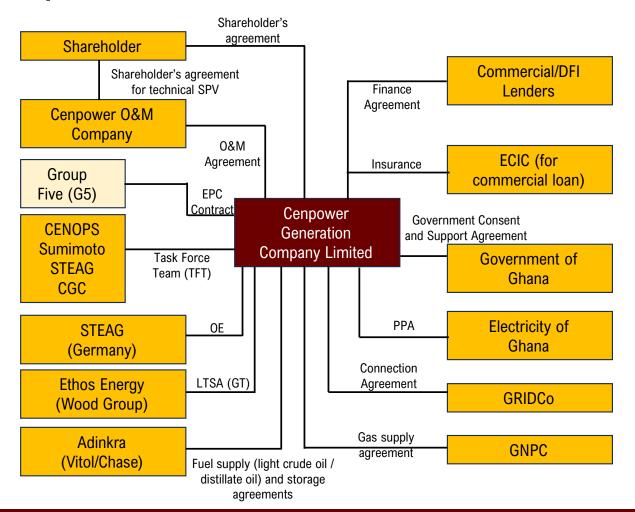


Termination of EPC Contract

- Cenpower announced the termination of its Engineering, Procurement and Construction (EPC) contract with Group Five in 2018, after the project had been delayed for more than a year.
- Cenpower also called for the bonds put in place as security by Group Five for **Delay Damages** due to the inability of Group Five to complete the project by the scheduled completion date of September 13, 2017.
- At the time, construction of the plant was complete but testing and commissioning work had not been conducted.
- A technical team from the shareholder group was assembled to complete the outstanding commissioning
 works. The team worked all the existing Ghanaian workers on the project, thereby ensuring that there were no
 job losses as a result of the termination of the contract.
- This was a **rare demonstration of contract termination rights** that can be exercised by equity and debt holders in project finance, if EPC contractors are deemed to have triggered a termination provision in the contract.
- This **is similar to, but not to be confused with, step-in rights** that enable lenders to step in and assume control, when they deem the project sponsor in default or in violation of contract provisions.



Kpone IPP: Contractual Counter Parties



Commercial Lenders under Export Credit Insurance Corporation of South Africa (ECIC) Cover (Facility Agent: Rand Merchant Bank)

RMB

NedBank

Standard Bank

HSBC Bank

Investec Bank

DFI Lenders

(Facility Agent: Bank of New York Mellon, London)

Development Bank of Southern Africa Limited (DBSA)

Industrial Development Corporation (IDC)

Dutch FMO

German DEG

The OPEC Fund For International Development (OFID)

The Emerging Africa Infrastructure Fund (EAIF)



Principal Contracts Involved in the Kpone IPP Project (1/2)

EPC Contract

Group Five Power International (G5), a wholly owned company of Group Five (SA) was selected as the Engineering Procurement and Construction ('EPC') contractor after a rigorous international procurement process.

The EPC contract with G5 was however terminated on November 30, 2018, and the project completed by a technical team assembled from the shareholder group.

Power Purchase Agreement

The Electricity Company of Ghana is Cenpower's major electricity off-taker, with a 20-year Power Purchase Agreement (PPA) for 325MW of contractual capacity.

ECG is wholly owned by the Government of Ghana and operates under the auspices of the Ministry of Energy as incorporated under the Companies Code, 1963 in February 1997.





Principal Contracts Involved in the Kpone IPP Project (2/2)

Feedstock Supply Agreement

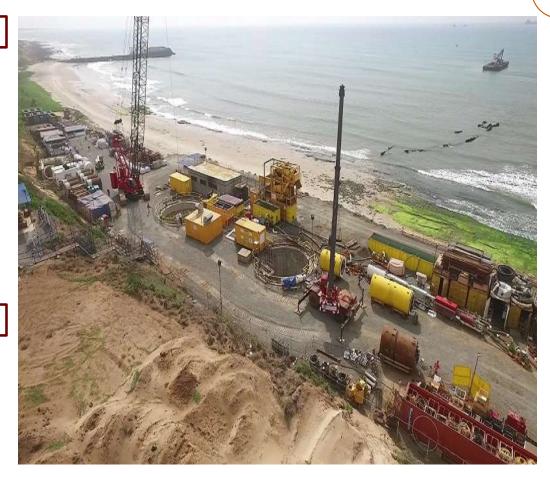
Cenpower entered into a contract granting Adinkra (owned jointly by Vitol and Chase) sole mandate for the supply, storage and delivery of Light Crude Oil (LCO) and distillate, on request by Cenpower Generation Company Limited.

The Vitol Group is a major participant in world commodity markets and is the world's largest independent energy trader.

Chase, a Ghanaian company headquartered in Accra, is a leading bulk distributor of petroleum products.

Grid Connection/Transmission Agreement

Cenpower entered into a connection agreement with Ghana Grid Company Limited (GRIDCo) to govern the establishment and operation of the connection of the Kpone Independent Power Plant (KIPP) to the National Interconnection Transmission System (NITS).





Switching Primary Fuel From Light Crude Oil (LCO) To Natural Gas

- The KIPP was initially built to run on light crude oil.
- In 2020, Cenpower committed to switching to natural gas as primary fuel; and signed a supply agreement with the Ghana's national oil company.
- The arrangement is expected to lead to \$3 Billion in savings over the course of the PPA.
- Furthermore, conversion to natural gas will have important environmental benefits, as emissions will be lowered.
- Also, this may have helped improved the operational stability of the KIPP; by substituting imported fuels with natural gas which is abundant in Ghana.
- It is also expected to help promote effective utilization of Ghana's abundant natural gas resources.





Principal Risks Involved In The Kpone Independent Power Project

The Kpone IPP project involved typical risks associated with the development of greenfield projects in countries in sub-Saharan Africa,

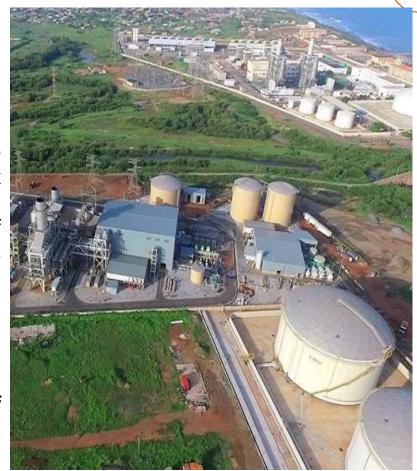
- Exchange currency rate for foreign investors.
- Depreciation of the Cedi by 4.6% against the dollar (Nov 2016)
- Absence of a sophisticated framework for public-private partnerships
- Political instability, which can affect government agency's commitment to PPA payments
- Current constitutional requirement for all international transactions to be ratified by parliament can slow down investment flows
- Uncertainty on Ghana's GDP growth projections





Lessons learned

- Cenpower's decision to terminate the contract and assume control
 of commissioning works highlights the importance of contractual
 provisions that allow stakeholders to take decisive actions in
 response to project delays.
- The case study underscores the significance of extensive stakeholder engagement and collaboration in developing complex infrastructure projects. Cenpower's success in securing funding and navigating challenges was heavily reliant on creating a network of contractual arrangements and partnerships with various stakeholders.
- The ten-year timeline from project inception to financial close underscores the importance of long-term vision and enduring commitment in the development of large-scale infrastructure projects. Achieving financial close often requires the navigation of complex negotiations, which require project sponsors to be patient and determined.





Questions/Discussion Points

- Discuss the role of the AFC in funding and providing support to the project.
- What were the key reasons for Cenpower's decision to terminate the EPC contract with Group Five?
- Compare the concept of contract termination rights with step-in rights in project finance. How do these mechanisms help mitigate risks and ensure project continuity?
- Evaluate the decision of Cenpower to switch from light crude oil to natural gas as the primary fuel source for the Kpone Independent Power Plant. What were the motivations behind this decision, and how did it affect the project's operational stability and environmental impact?
- How might the requirement for parliamentary ratification of international transactions impact the willingness of investors to participate in infrastructure projects like KIPP?



Current News on the Kpone Independent Power Project

Business News of Friday, 24 March 2023

Source: Bloomberg Disclaimer

Power firms in Ghana reject government's move to restructure \$1.4 billion debt





A group of Ghana's independent power producers has rejected a proposal from the government to include \$1.4 billion in arrears as part of the nation's external debt restructure, while pushing authorities to honor payments that start coming due Friday.

The Independent Power Generators of Ghana — an umbrella association known as IPP, which represents eight foreign and one local power suppliers — is asking the government to meet the payment it owes to six of its members, or face the possible shutdown of power plants, Elikplim Apetorgbor, the group's chief executive officer, said in an interview Wednesday in Accra. The money, he said, is needed to service bank loans and pay input suppliers.

"A group of Ghana's independent power producers has rejected a proposal from the government to include \$1.4 billion in arrears as part of the nation's external debt restructure, while pushing authorities to honor payments that start coming due Friday

The companies owed are Aksa Energy, Amandi Energy, Karpowership Ghana, Sunon Asogli, Cenpower Generation and Cenit Energy."

Source: GhanaWeb.com, 2023



Cenpower donates food items to **Kpone community**

Graphic.com.gh / Apr - 27 - 2020, 16:59



"Cenpower Generation Company Limited, the first project finance green-field Independent Power Producer (IPP) in Ghana has donated food items to the Kpone Community, a neighboring community to the Cenpower operation area in the Greater Accra Region."

Source: graphic.com.gh, 2020



References

- 1. https://cenpowergen.com/media-news/press-release/78-cenpower-announces-financial-close-of-us-900-mm-project-financing-of-its-kpone-ipp-plant-in-ghana
- 2. https://cenpowergen.com/media-news/press-release/76-cenpower-generation-and-its-partners-break-ground-for-a-350mw-power-plant-in-ghana
- 3. https://www.jstor.org/stable/55808597-df0a-3b63-bd39-d52999077aff?seq=4
- 4. https://www.businesslive.co.za/bd/companies/energy/2018-12-02-ghanaian-power-company-ends-troubled-contract-with-group-five/
- 5. https://dailyguidenetwork.com/cenpower-group-five-end-epc-contract/
- 6. https://www.ghanaweb.com/GhanaHomePage/business/Power-firms-in-Ghana-reject-government-s-move-to-restructure-1-4-billion-debt-1736840
- 7. https://www.graphic.com.gh/news/general-news/cenpower-donates-food-items-to-kpone-community.html

