

 Early Warning System

IFC-37673

Nachtigal



## Quick Facts

<b>Countries</b>	Cameroon
<b>Specific Location</b>	Sanaga River, 65 km north-east from Yaoundé in Cameroon.
<b>Financial Institutions</b>	International Finance Corporation (IFC)
<b>Status</b>	Approved
<b>Bank Risk Rating</b>	A
<b>Borrower</b>	NACHTIGAL HYDRO POWER COMPANY
<b>Sectors</b>	Construction, Energy, Hydropower
<b>Investment Type(s)</b>	Loan
<b>Investment Amount (USD)</b>	\$ 145.52 million
<b>Loan Amount (USD)</b>	\$ 151.33 million
<b>Project Cost (USD)</b>	\$ 1,175.32 million



## Project Description

According to bank provided information, the Nachtigal-amont project is a greenfield 420 MW run-of-river hydropower project located on the Sanaga river near Yaoundé, Cameroon (the "Project", "Nachtigal") and developed as an Independent Power Producer ("IPP").

As of April 2017, the plant is estimated to achieve full commercial operations by 2022. This would make it the first IPP to be built on the Sanaga river benefiting from the upstream Lom Pangar regulating dam. The Project benefits from the full support of the Republic of Cameroon who just signed and granted the 35-year concession to the project company.

The project is located in the Sanaga River, 65 km north east from Yaoundé (Cameroon). The project is being developed by Nachtigal Hydro Power Company ("NHPC") whose shareholders are EDFI (40%), the Republic of Cameroon (30%) and IFC (30%). Construction of the project is estimated to cost around 1.05 billion EUR. In addition to IFC's equity as project developer, the proposed investment is up to 130 million EUR A loan. IFC will also act as Global Coordinator for up to 650 million EUR of parallel loans in Euros or in local currency. The World Bank (WB) is engaged in the power sector in Cameroon providing advice on the Electricity Sector Development Plan covering the period 2015-2035 ("PDSE 2035") and developing a Technical Assistance project for hydropower development on the Sanaga River that should also support Nachtigal and the overall sector framework. WB will provide a Partial Risk Guarantee (PRG) to this project.

Construction is organized in four separate engineering, procurement and construction (EPC) contractor tenders: (i) civil works (LOT GC), (ii) installation of electro-mechanical equipment (LOT EM1), (iii) construction of high and medium voltage transmission lines (LOT EM2), and (iv) construction of NHPC base camp (LOT CE). Construction is expected to start in early 2018 and commissioning of the last turbine is expected in 2022. The project's main components include:

- A roller compacted concrete dam on the Sanaga River, comprised by an overflow section with a total length of 1455 m and maximum height of 13.6 m, and a non-overflow section with a length of 553 m and a maximum height of 16 m to create a 27.8 million m<sup>3</sup> reservoir with a surface of 4.21 km<sup>2</sup> at normal operating level.
- A headrace lined canal about 3.3 km long and 14m deep on average to transfer water to the hydroelectric power plant with a maximum flow rate of 980 m<sup>3</sup>/s corresponding to the design flow of the hydroelectric power plant equipment. A hydroelectric power plant with an installed capacity of 420 MW (seven 60 MW Francis turbines able to operate either as a run of river plant or an intermediate peaking plant).
- A secondary 4.5 MW power plant to generate electricity from the environmental flow (riparian release) to be discharged downstream of the d
- A double busbar 225 kV generation substation and a 50.3 km 225 kV double circuit transmission line equipped with two bundle conductors to transport the power produced from the power plant generation substation to the Nyom 2 connection substation.
- Spoil disposal areas for the temporary storage of approximately 1.8 million m<sup>3</sup> of excavated material.
- A quarry for the extraction of approximately 170,000 m<sup>3</sup> of laterite.
- A concrete plant to produce approximately 130,000 m<sup>3</sup> of concrete.
- 6.5 km of permanent roads to access the hydroelectric power plant and dam.
- A temporary construction base camp with capacity for up to 1,500 workers.
- A 1 ha temporary landfill for the sorting, pretreatment and disposal of non-hazardous solid waste generated by EPC contractors and NHPC offices and base camp.



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## Investment Description

- International Finance Corporation (IFC)

The total project cost is estimated at EUR [1.1] billion financed with c. EUR [0.8] billion in debt and c. EUR [0.3] billion in equity.

The debt tranche is to be funded with a combination of senior loans from Development Finance Institutions ("DFI") and local commercial banks supported by a World Bank Partial Risk Guarantee.

IFC is planning to provide a senior loan (A Loan for IFC's own account) of up to EUR 130 million and to mobilize the rest of the debt package under its Global Coordinator role.



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## Private Actors Description

The Project is developed by Nachtigal Hydro Power Company ("NHPC") incorporated in Cameroon. Its shareholders are the Republic of Cameroon, EDF International ("EDFI") and International Finance Corporation ("IFC"), with respective shareholdings of 30%, 40% and 30% in NHPC. IFC developed the Project under its global infrastructure project development fund IFC InfraVentures.

EDF International is a 100%-owned subsidiary of Electricité de France ("EDF") and is the holding company of EDF's investments abroad with more than twenty subsidiaries globally. EDF is a French electric utility involved in all segments of the energy value chain: generation, transmission, distribution, energy supply and trading. The group operates a diverse portfolio of more than 130 GW of net generation capacity in Europe, South America, North America and Asia serving 37.6 million customers in 2015. EDF is publicly listed on the Euronext Paris stock exchange.



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Private Actor 1	Private Actor 1 Role	Private Actor 1 Sector	Relation	Private Actor 2	Private Actor 2 Role	Private Actor 2 Sector
-	-	-	-	EDF SA	Investor	-
-	-	-	-	International Finance Corporation (IFC)	Investor	-
-	-	-	-	Nachtigal Hydro Power Company	Client	-

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### Contact Information

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### ACCOUNTABILITY MECHANISM OF IFC

The Compliance Advisor Ombudsman (CAO) is the independent complaint mechanism and fact-finding body for people who believe they are likely to be, or have been, adversely affected by an IFC or MIGA- financed project. If you submit a complaint to the CAO, they may assist you in resolving a dispute with the company and/or investigate to assess whether the IFC is following its own policies and procedures for preventing harm to people or the environment. If you want to submit a complaint electronically, you can email the CAO at [CAO@worldbankgroup.org](mailto:CAO@worldbankgroup.org). You can learn more about the CAO and how to file a complaint at <http://www.cao-ombudsman.org/>



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## Bank Documents

- 01 Resume des etudes ES
- 01 Summary of ES studies
- 02 Executive summaries - ES plans
- 02 Resumes des plans d'action ES
- 03 EIES\_Nachtigal\_septembre 2011
- 04 Addendum EIES - Qualite de l'air
- 05 Addendum EIES - Bruit
- 06 Addendum EIES\_Biodiversite\_Flore - Faune
- 07 Addendum EIES - Etat initial des peuplements piscicoles
- 08 Addendum EIES - Synthese des impacts sur les populations piscicoles
- 09 Addendum EIES-CTED - carriere - traitement des eaux
- 10 Plan de Gestion Afflux Sociaux
- 11 Mecanisme de Gestion des Requetes et des Plaintes
- 12 Plan restauration moyens existence carrieres de sable PRME
- 13 Archeologie\_PGES
- 14 PAR Barrage septembre 2016
- 15 PAR Ligne
- 15 PAR Ligne ANNEXES
- 16 PGES
- 17 Revue APD par POE
- 18 Plan d'action biodiversite
- 19 Plan d'action biodiversite Especies piscicoles
- 20 Plan d'action biodiversite L Sanagensis et L Thalloidea