## PRESS RELEASE

## Cameroon - Nachtigal dam NGE announces the impoundment of the main dam.


#### Abstract

Cameroon, July 18, 2023 - After almost four years of work, the Nachtigal hydroelectric dam civil engineering consortium, led by NGE, has just achieved two significant milestones: the completion of the inlet canal watertightness tests and the impoundment of the dam, two key milestones paving the way for the start of electricity production. This major hydroelectric scheme, whose seven power groups will be commissioned between the end of 2023 and the end of 2024, will add 420 MW of green energy to the country's electricity production capacity, i.e., around a one third increase.


Built on Cameroon's largest river, the Sanaga, 65 km north-east of the city of Yaoundé, with a flow four times greater than that of the Seine River in Paris, the Nachtigal dam is one of the main infrastructures on the continent. The dam is 1.5 km long and 14 metres high, and the inlet canal - used to create falling water that will generate the electricity in the turbines - is 3.3 km long. The overall cost of the Nachtigal dam is estimated at 1.2 billion euros. This monumental dam will enable Cameroon to exploit its hydroelectric potential, increasing the supply of electricity to the country's population by a third.

Since 2019 and the launch of work on the design-build contract for the civil engineering work package, NGE has been working with its partners BESIX, SGTM and its subcontractor Tractebel to design and build three main structures on the site:

- a main dam consisting of $120,000 \mathrm{~m} 3$ of roller-compacted concrete and $24,000 \mathrm{~m} 3$ of conventional concrete, forming a dike approximately 1.5 km long.
- a perfectly watertight 3.3 km inlet canal with a capacity of $980 \mathrm{~m} 3 / \mathrm{s}$, used to create falling water whose energy will be harnessed by turbines.
- civil engineering work on the hydroelectric power station, built in part using high-strength concrete capable of withstanding exposure to Sanaga's pure waters.

The large-scale watertightness tests on the inlet canal have just been successfully completed: the watertightness was ensured by bituminous layers applied by a machine developed by NGE that is unique in the world: an "asphalt beam", i.e. a giant 130-tonne application finisher, specially designed for this dam and capable of applying asphalt mixes over a width of 35 metres and on slopes with a gradient of $50 \%$, reducing to a strict minimum the number
of interruptions and therefore joints, which are weak points for watertightness. A world first.

The impoundment of the dam on 18 July 2023 is one of the most important steps in the construction process, as it will create the reservoir for the water that will flow into the inlet canal, whose artificial flow will drive the seven turbine groups used to generate electricity. The Nachtigal reservoir covers an area of 421 hectares and has a total storage capacity of 27.8 million cubic metres. This impoundment will enable the first turbine group to be commissioned, scheduled for the end of 2023.
"The Nachtigal dam is the very embodiment of NGE's raison d'être: working together to build infrastructure that changes the world and makes us proud! This flagship project in Africa - which will produce green energy with very limited impact on the natural environment - required the mobilisation of 3,000 dedicated employees and several of our design and construction experts in fields as diverse as earthworks, foundations, concrete structures, and bituminous layers to ensure watertightness. The Covid health crisis, which was particularly difficult to manage in a remote location, restrictions on maritime transport and the repercussions of the war in Ukraine did not help NGE and its partners SGTM and BESIX, but together and with the ongoing support of the project leader, led by EDF, we rose to the challenge, culminating in one of the finest constructions of the Group. The working conditions, and in particular the results in terms of safety at work, matched the highest standards," said Orso

## Vesperini, International Director NGE.

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About NGE [New Generations of Entrepreneurs]
NGE is an independent construction and civil engineering company, with revenues of 3.1
billion euros: one of the top 4 players in France. Around the world, NGE teams finance,
design, build and renew infrastructures and buildings in 18 countries. The Group's 16,500
employees are involved in the construction of major sustainable mobility infrastructures and
projects at the service of local authorities, with a proven track record worldwide.
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