

PPP BULLETIN INTERNATIONAL

September 24, 2012

Fuel for Thought

by Ryan Ketchum

Uganda's \$900m Bujagali Hydroelectric project has proved that tariff regulation by contract can now be applied to other power PPPs in the region, writes Ryan Ketchum at Hunton & Williams



For several years, Uganda has suffered from a shortage of generation capacity. The resulting rolling blackouts and sharp rise in electricity prices caused the government to resort to paying millions of dollars per month in subsidies. Together these issues are estimated to have reduced Uganda's economic growth by around 5% per year.

On 1 August this year, the US\$900m, 250MW Bujagali Hydroelectric Dam – the largest private sector investment ever undertaken in the region – achieved commercial operations, signifying a monumental change for Uganda's power generation.

Uganda, its government-owned electricity utility, the project's sponsors, and a small army of advisers worked for over a decade to overcome the formidable obstacles that stood in the way of the successful development of the project. Starting in the early 1990s, the World Bank and other development finance institutions aggressively advocated for structural reforms to the electricity sectors of developing, emerging, and least developed countries. To put it simply, they concluded that the process of establishing electricity tariffs had to be de-politicised before utilities would be able to charge cost-reflective tariffs. To accomplish this, they advocated for the establishment of independent regulators that had an explicit mandate to regulate the sector in a manner that balanced the interests of consumers and investors.

As such, the first step in the project's development was to undertake a complete restructuring of the Ugandan electricity sector. In 1999 the government of Uganda split the Uganda Electricity Board (the UEB) into three separate utilities:

- Uganda Electricity Generation Company Limited (UEGCL), which owns and operates generation plants formerly owned by the UEB;
- Uganda Electricity Transmission Company Limited (UETCL), which owns and operates the transmission system in Uganda and functions as a single buyer of capacity and energy from independent power projects; and
- Uganda Electricity Distribution Limited (UEDCL), which was privatised before work on the Bujagali project commenced.

The Ugandan Parliament also passed the Electricity Act 1999, which established the Electricity Regulatory Authority of Uganda and granted it the power to regulate the now separate generation, transmission, and distribution sectors.

Yet these changes alone only went some of the way towards balancing the various interests involved in such a complex project. Indeed, while many emerging countries established independent regulators in the 1990s, many were not effective at de-politicising the tariff-setting process and balancing the interests of investors and ratepayers as politicians, investors, and ratepayers had hoped.

By 2003, it had become clear that independence was not enough, and that a clearly specified regulatory contract must be negotiated by the political authorities for projects to gain public acceptance and retain it for the long-term.

Against this backdrop, in January 2004 the government launched a request for proposals (RFP) seeking investors to develop the project. The RFP contained a detailed set of formulas that collectively established a detailed tariff methodology that was annexed to the Power Purchase Agreement. The tariff methodology contained cost openers for the capital cost of the project and for costs associated with the servicing of the project loans.

This structure offered several distinct advantages over the alternatives. It enabled the project's sponsors to undertake a truly competitive bid to procure an EPC contract after the Power Purchase Agreement had been executed, it enabled geo-technical risks to be allocated primarily to rate-payers, which avoided a risk premium being priced into the EPC contract, and it enabled the sponsors to arrange the financing after the Power Purchase Agreement had been executed.

Collectively, these advantages heightened private sector interest in undertaking the project. Given the tariff's structure, the bid evaluation criteria included an explicit internal rate of return on the equity invested in the project, a cap on the development costs the sponsors would seek to recover, and a fixed monthly operations and maintenance charge.

The Bujagali Hydroelectric project has demonstrated that regulation by contract can be successfully applied to independent power projects. Uganda successfully avoided the trap

into which many countries with newly established regulators fall. This was possible largely as a result of the willingness of Uganda's Electricity Regulatory Authority to engage in a dialogue as to the types of tariff structures they felt would be consistent with their obligation to balance the interests of consumers and investors, but to ultimately permit that tariff structure to be embodied in a contract that is subject to international arbitration.

The strength of this structure is evidenced by the number of lenders that ultimately lent to the project company. Lenders on the project include the IFC, the EIB, KfW, DEG, AfDB, L'Agence Française de Développement, Proparco, FMO, Standard Chartered, and ABSA Capital. The commercial loans are supported by a partial risk guarantee issued by the International Development Association. MIGA provided political risk insurance.

A similar tariff structure is currently being used in the ongoing tender for the development of the Ruzizi III Regional Hydroelectric Project, which is thought to be one of the first cross-border IPPs in Africa to involve three offtakers. The project will be located on the Ruzizi River and will sell capacity and energy to offtakers in Burundi, the Democratic Republic of Congo and Rwanda.

This type of structure can be readily adapted to other types of PPPs and could gain broader acceptance as a tool for strengthening private sector interest in the development of PPPs in emerging markets, developing, and least developed countries.