RUSUMO FALLS HYDRO POWER PROJECT

LAURENCIA NJAGI

SENIOR ENERGY SPECIALIST





Background

- Implementation Arrangements and Oversight
- Project Milestones
- Implementation Challenges
- Benefits and World Bank Value Add





BACKGROUND



80MW Rusumo HPP is a joint development of the governments of BI, RW, TZ



The Project

- Run-of-river (Kagera River) 80 MW baseload power plant, with associated substation
- Avg annual energy 429 GWh/yr
- Three generation units of 26.7MW each
- Power to be equally split between three countries



Financing

- US\$340 mln Project is a joint development by **BI, RW, TZ with financing from WB**
 - Burundi Grant of US\$ 113.3 mln;
 - Rwanda 50% Grant/ 50% Credit of US\$113.3 mln;
 - Tanzania Credit of US\$113.3 mln
- Parallel financing from **AfDB** for transmission lines and associated substations (\$160m)





MPLEMENTATION ARRANGEMENTS AND OVERSIGHT

1 Shareholders Agreement (SA)- governments of BI, RW & TZ	 Part of WB financing-three govts entered into a SA in September 2013, setting out the principles and terms for their strategic joint venture investment. The governments incorporated Rusumo Power Company Ltd (RPCL), as a special purpose vehicle to finance, develop, own and operate hydro power project. RPCL incorporated in Rwanda as a private limited company, operates under the Rwanda laws and owned equally by the three governments. The SA requires that RPCL operates as a private commercial company applying prudent private sector practices
2 WB Financing Agreements	• WB Financing Agreements: required the governments to on- lend the credits/grants proceeds to RPCL in US\$, at concessional terms- interest rate of 2% and a tenor of 25 years and a 5 year grace period.
3 Project Ownership and Implementation Oversight	 Project Ownership: Rusumo Power Company Limited (RPCL) owned by BI, RW, TZ Project Implementation Oversight: by RPCL Board and Project Steering Committee, Council of Ministers





IMPLEMENTATION ARRANGEMENTS AND OVERSIGHT

Project Implementation

- Project Implementation Agency: Nile Equatorial Lakes Subsidiary Action Program (NELSAP) on behalf of RPCL under a Project Implementation Support Agreement (PISA) between RPCL and NELSAP
- PISA key to Project financing and cannot be amended in a substantive manner or terminated without the WB consent.
- Owner's Engineer: JV AECOM-ARTELIA, Canada/ France
- Civil Works Contractor: JV CGCOC Group-Jiangxi Water & Hydropower Construction Company (JWHC), China
- Electromechanical Contractor: JV Andritz Hydro, Germany- Andritz Hydro, India Project





IMPLEMENTATION ARRANGEMENTS AND OVERSIGHT



Political Risk mitigation:

- Financing, implementation and project ownership structure through an SPV
- Delegation of project implementation to NELSAP, that is a regional body and had well-established fiduciary capacity and experience.



Sustainability:

- At about USc6.3/kWh, Rusumo is one of the least cost energy source for the three countries
- Electricity from Rusumo will displace generation from thermal plant (USc21/kWh) in Burundi as wells as Rwanda.
- Fairly good draft PPAs, including the charge rates were agreed and initialed in 2013.
- Negotiation of the PPAs is being finalized PPA with BI signed.
- To mitigate risk of payment defaults the PPAs require the three utilities to establish an escrow account for an escrow account.
- RPCL entitled to suspend power deliveries to a utility in the event of a payment default where the escrow account is exhausted.
- RPCL entitled to suspend repayment of on-lent loan to a country where the utility of that country is in payment default under the PPA.
- Other aspects of sustainability- continued policy dialogue and funding support on sound power expansion planning, operational efficiency and cost reflective tariffs.





MILESTONE DATES

WB Board approval of Project and Financing Agreements (FAs)	August 6, 2013	
Original WB Project Implementation duration	7 years (project closing date Dec. 31, 2020	
Extended WB project duration	10.5 years (extended by 3.5 years to close June 30, 2024	
Contract Awards (civil and electromechanical)	Nov 9, 2016	
Original contract completion period	3 years (from Feb 6, 2017 -Feb 2020)	
Extended (estimated) contract completion period Current progress status	6.5 years (completion date – Sept 2023)	
Current status	Power facilities -undergoing commissioning tests Transmission lines substantially completed (Rwanda: (Rusumo- Bugesera-Shango 118km & Substation; Burundi: (Rusumo-	

Muvinga-Gitega 160km &





1. Cross-boundary challenges

- Free movement of labor
- Movement of materials across border
- Intra community relations
- Community relations w/proje

2. Project location challenges

- Highly populated, busy area
- Economic activity at border post
- International road at border post
- Managing construction with restricted community relocation options

3. Environment and Social safeguards management challenges (significant)

- **Blasting damage of PAPs houses/structures** in 2018 that caused work stoppage for several months-
- Protracted discussions on affected houses, reconstruction/repairs needed and delays in works
- **Delays in payment of compensation to PAPs-** for back water flooding- protracted negotiations with communities.

4. Project management challenges

- Coordinating interface btw two contractors
- Project management challenges- high turnover of project managers
- 5. Project completion delays
- COVID 19 Impacts -slow down of work since March 2020
- Boarder closures affected shipment of materials
- Contractors delays

6. Relations btn project owner and implementing agency

- RPLC established institutional capacity and with time wanted to be more involved in project implementation.
- Amendment of the PISA affected several legal agreements and not feasible at the tail end of the project





RUSUMO POWERPLANT BENEFITS

Rusumo Benefits

Least cost renewable energy source for Burundi, Rwanda, Tanzania Support regional and political cooperation, enhance regional integration Employment, trade opportunities for communities around Rusumo HPP during construction Longer term economic benefits (employment, trade) for communities around Rusumo HPP after construction

Local area development projects/commun ity benefits sharing projects that have been completed (US\$15 million) and others of a similar amount are under implementation.





RUSUMO BENEFITS: LOCAL AREA DEVELOPMENT







Local Area Development Program (US\$30 mln): community-picked projects for broader social-economic uplift of project-affected communities in BI, RW, TZ



- Construction,
 extension of water
 systems in different
 villages
- Youth Training
 Centers
 construction in
 different villages
- Health Centers construction different villages

- Health Centre construction;
- Water supply systems construction in different villages Feeder roads rehab



- Water supply systems construction in different villages
- Construction, rehab of water systems in different villages
- Vocational Training
 Centre upgrade
 - Health Centre construction
 - Secondary School construction









- Community projects have been successful
 - Second LADP is underway



VALUE ADDED BY WB PARTICIPATION

Value added by WB participation



 The US\$ 340m concessional financing to the three countries that has financed construction costs, project management cost by NELSAP, OE, RPCL, board of independent experts, compensation to project affected communities and community benefits sharing projects.



Initial funding to the countries for project preparation support – consultancies and studies



 Bring the three countries together for the joint development applying a common set of principles and guidelines- procurement, safeguards management etc.



Strong technical, project management and safeguards implementation monitoring and support by the WB team.



Safeguards support that have ensured that negative impacts to the host communities is minimized and damage adequately compensated.





Energy Sector Management Assistance Program The World Bank 1818 H Street, NW || Washington DC || USA www.esmap.org || esmap@worldbank.org



