Pwalugu Multi-Purpose Dam Project
Stakeholder Consultative Meeting
Accra

April 24, 2019

VOLTA RIVER AUTHORITY

Outline

- Background of the Pwalugu Project
- Project Description
- Current Status of the Project
- Project Benefits
- Project Impacts and mitigations
- Project Organisation
- Way Forward

Background

- In 2013, VRA received funding from Agence Francaise de Development to undertake Feasibility Study, an Environmental & Social Impact Assessment (ESIA) and a Resettlement Action Plan (RAP);
- ESIA was completed in 2016 and feasibility study in 2018;
- Subsequently GoG has decided to proceed with the project and therefore VRA has initiated implementation of the project;
- This project is in line with VRA's objective of ensuring development in a sustainable manner and its mandate to develop the hydro resources of the Volta Basin.

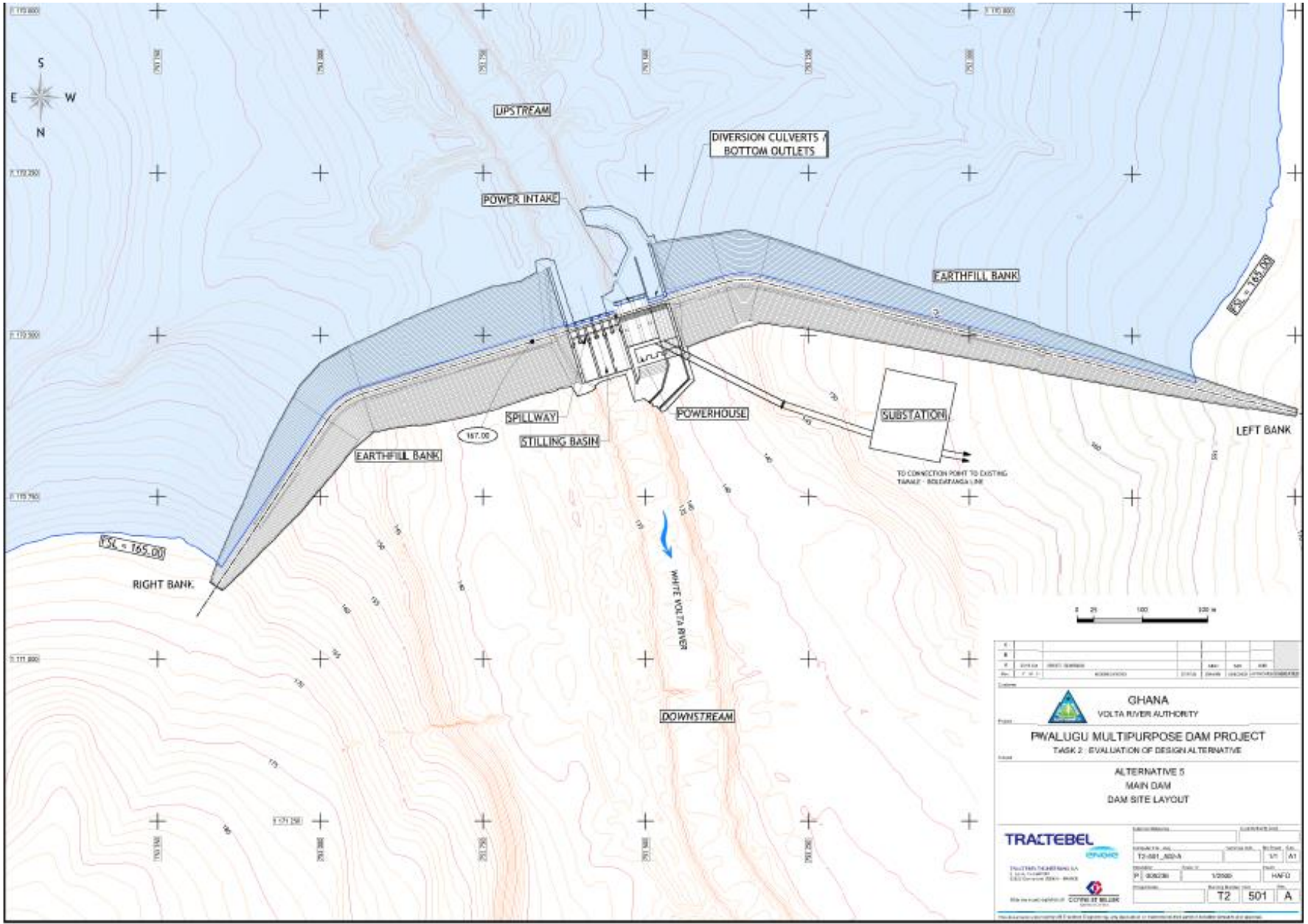
Project Description

- The Project will comprise the following:
  - A dam with maximum reservoir area of 350 km^2 and full supply level of 165m
  - A 60 MW power house with two (2) turbines
  - A 20 metre high weir with primary and secondary canals for a 20,000 hectare irrigation scheme
  - 15km overhead transmission line
  - Resettlement of project affected persons
- Estimated cost of dam, powerhouse and weir is about $300m. Cost of irrigation scheme and resettlement will be known after completion of on-going studies.

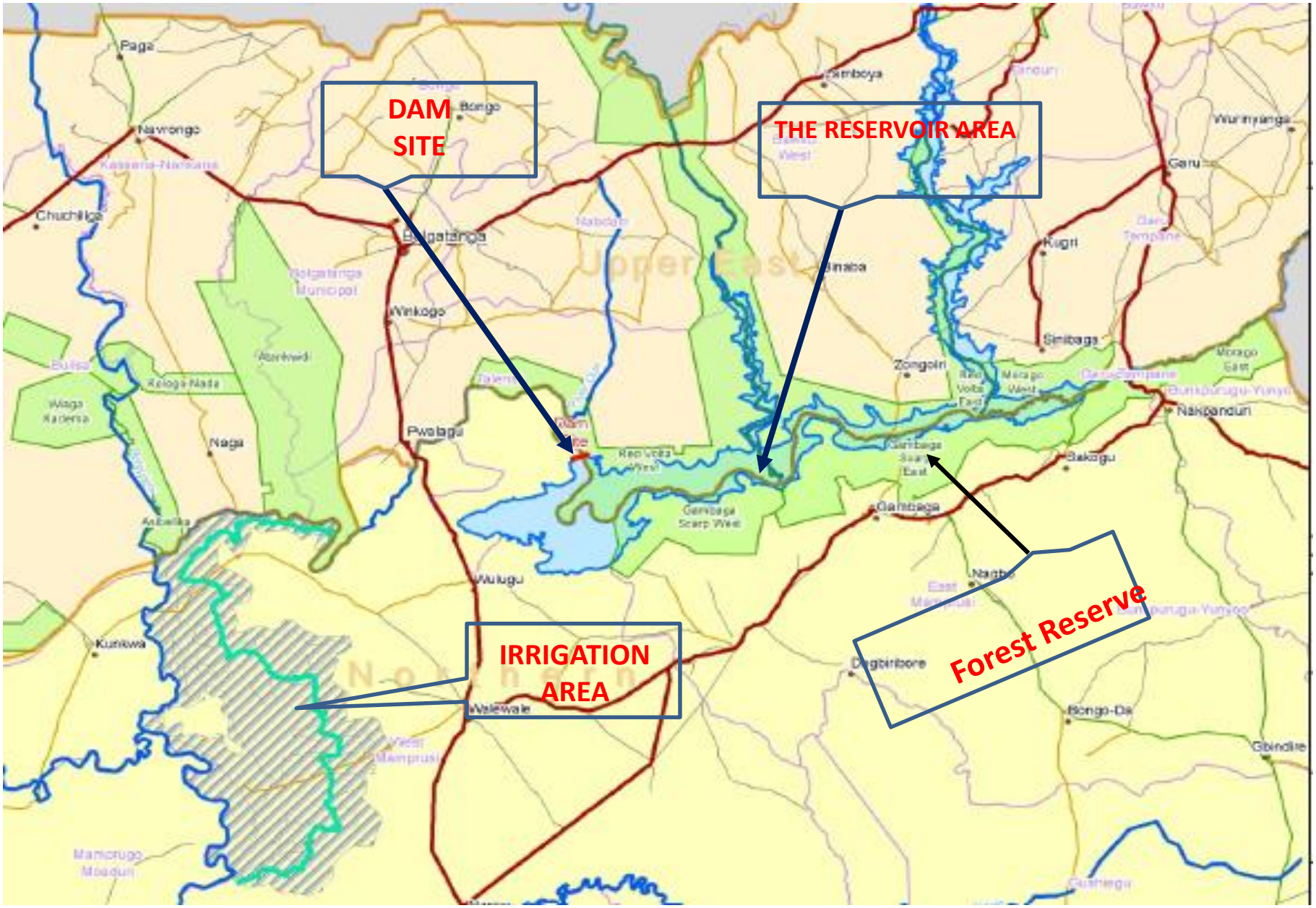
Project Description

- Six (6) project alternatives were assessed;
- Reservoir elevation reduced from 170m to 165m to reduce environmental and social impact as well as cost.
- The current project design strikes the best balance among the project benefits of hydropower, flood control, irrigation and the environmental & social impact;
- Construction will take about 3.5 years after award of contract (at the end of the year).

Dam and Power House



Dam, Reservoir and Irrigation Areas



Current Status

- The contractor has submitted technical and commercial proposal. Proposal is in four (4) volumes covering EPC contract, employers requirement, technical specification & technical proposal. VRA has assembled a team comprising specialists in dam studies/safety, hydrology, hydro operations, HSE, EPC contracts and supported by its external consultant, Tractebel Engineering.
- Revision of ESIA and associated RAP for reduced dam height. EPA will then organise stakeholder consultations before issuing a permit;
- The engineering study for the irrigation has been completed. An institutional study is being conducted by GIDA to ensure its sustainability will be completed in May 2019;

Project Benefits

- Irrigation scheme, the largest in the country, will boost agricultural production and form basis for agro industries, including revival of Pwalugu tomato factory;
- Potential to produce 117,000 tons of rice and 49,000 tons of maize and reduce import by 16% & 32% respectively. Other crops that will benefit from increased production include onion, tomatoes, sweet potato, sweet pepper and watermelon.
- Potential for smaller irrigation schemes around the reservoir, fish farming, which will improve livelihoods and create jobs upstream of dam.

Project Benefits

- Hydropower will increase renewable energy capacity and enhance Ghana's climate change commitment of 10% renewable by 2030 under the United Nations Framework for Climate Change;
- Power will be supplied to NEDCo and will improve quality of supply/voltages;
- Dam will reduce the frequency of floods downstream. An emergency preparedness and response plan will be prepared to manage floods.

Project Impacts

- Resettlement of some households within and outside the forest reserve. The exact area to be affected and the number of people will be known after revision of ESIA;
- Reservoir will also cover part of the surrounding forest reserve;
- Areas outside the forest reserves will also be affected.
- Land acquisition for dam and reservoir area

Mitigating Project Impacts

- Resettlement will done to international standard which requires the following:
  - Involuntary resettlement should be avoided if possible
  - Full and fair compensation for lost assets
  - Should be conceived as improving the livelihoods of affected people and implemented accordingly
  - Affected people should be consulted and involved in resettlement planning
- Details of the resettlement will be known after the revision of the ESIA/RAP, and will involve extensive consultation with national, region, district and traditional authorities as well as affected persons and civil society groups.

Project Organisation

- The Pwalugu Development Committee, comprising the Office of the Vice President, Ministries of Finance, Energy, Agriculture and Attorney General, will provide overall guidance to the project;
- VRA will manage the project activities through a dedicated Project Secretariat;
- A broader stakeholder consultative group at national, regional & district levels will also be created to ensure all stakeholders are adequately informed on the progress of the project and make input into project implementation.

Way Forward

- National Stakeholder meeting and Inauguration of Project Development Committee (PDC) - April 24;
- Conclude discussions with Contractor for the Dam, Power House and Weir by end of July 2019;
- Revise of ESIA/prepare EMP – timing to be known after meeting with EPA on April 25;
- Start of consultations on land acquisition and resettlement;
- Target is to conclude all preparatory activities by the end of the year for start of construction early next year (dry season).

Power Economics

% of dam cost apportioned to the power component of the project	LCOE (USDct/kWh)
0%	5.3
30%	9.3
50%	12.0
100%	18.7

END OF PRESENTATION