

WSP helps restore stable electricity access to 20,000-plus customers in Zim

Infrastructural challenges in its power and WASH sectors (water, sanitation and hygiene) led the Zimbabwean government to seek funding to redress the situation that has impacted on people's lives. With support from development partners, the government secured a grant of \$35m from the Zimbabwe Multi-Donor Trust Fund (Zim-Fund) - as administered by the African Development Bank - to be allocated for the implementation of the [Emergency Power Infrastructure Rehabilitation Project \(EPIRP\)](#).



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Acting in the role of implementing entity on behalf of the government of Zimbabwe, the power team from WSP in Africa is providing consultancy and project management services throughout the EPIRP lifecycle: from project scoping, development of technical specifications and tender stage management to design management, construction supervision and final handover.

“Though a brownfield project, the EPIRP is crucial to improve the reliability of the power sector in Zimbabwe and restore supplies to the 20,000+ customers who have been without stable access to electricity for some time,” explains Dinesh Buldoo, director: power, WSP in Africa. “This project has been thoroughly planned out and is being implemented in phases to ensure the maximum overall success since there are a number of components that are ultimately interdependent.”

Providing adequate and reliable electricity

“The first phase of the EPIRP was designed to improve the provision of adequate and reliable electricity in an environmentally sound manner,” says Buldoo.

Phase one commenced in 2012 with the rehabilitation of the ash handling plant at the Hwange Power Station to prevent ash build-up in the furnace and precipitator hoppers. “This is critical for the continuous full-load operation of the generating units, as a build-up of ash would lead to a partial or complete shutdown of the power station,” indicates Buldoo.

WSP's experts appointed to this project also carried out a substantial assessment of the power transmission and distribution facilities across the country, as well as an environmental and social audit of the plant and its operations. It then produced a comprehensive environmental and social management plan for the government and investor clients. The final handover took place in 2017, concluding the first phase of the EPIRP.

Work completed under phase one includes:

- Replacement of six power transformers
- Renewing primary equipment such as circuit breakers and instrument transformers at sub-transmission substations
- Replacement of more than 500 distribution transformers
- Installation of 11kV (kilovolt) and 33kV underground cables and overhead conductors
- Construction of a new substation that will secure the power supply to the Harare City water treatment plant

Ramping up the voltage

The second phase of the EPIRP commenced in 2014 and was executed in a staged approach. This phase was designed to further the benefit of the phase one interventions by focusing on the rehabilitation of the sub-transmission and distribution network owned by the Zimbabwe Electricity Supply Authority (ZESA).

“The ultimate aim of this phase was to improve reliability of power supply to consumers. However, given the scope of this phase and the number of components involved, execution took place in two execution stages says Buldoo. “The first part is completed, and we are now working on the sub-projects of the second stage with the engineering, procurement and construction (EPC) contractor. This is planned for completion by the first quarter of 2020.”

Buldoo indicates that close collaboration among multiple parties was integral to bringing the EPIRP to a successful closure. “We had a team of experts – from engineers, to project managers, accountants and environmentalists - actively involved with varying aspects of this project. Our team members also continue to work closely with sub-consultants, the EPC contractor and numerous other stakeholders, including but not limited to representatives from the Zim-Fund, the Zimbabwe Electricity Transmission and Distribution Company, the Zimbabwe Power Company, and Crown Agents – who all have a shared vested interest in the project.”

“Working on such a high-profile project that can have a direct and lasting impact on people's lives, and on the economic and social development of a country is a great honour. Everyone involved has shown ingenuity and dedication to working towards the same end goal. We are very proud of our involvement and contribution to this project,” concludes Buldoo.