

Ruaha Energy Limited - Hydropower Electromechanical Turbine/Generator/Controls US Manufacturing Consortium Profile

Rickly Hydro Co. is a US hydropower equipment manufacturer that is dedicated to hydrological and hydropower equipment engineering and design since 1922 with offices and manufacturing facilities in Columbus, Ohio. Rickly Hydro has equipment installed and operating in over 80 countries and is focused on increasing US manufactured equipment exports worldwide. Rickly Hydro specializes in mini to small hydro turbines from 10 kw to 10 Mw. Rickly Hydro has teamed with Ruaha Energy to collaborate with and form a consortium of US hydropower manufacturers to provide a solid, proven electromechanical hydro turbine, generator, controls and ancillary equipment, such as intake screening, valves, powerhouse cranes, etc. for Ruaha Energy's plan for hydropower development, primarily for initial projects in Tanzania.



Rickly Hydro's manufacturing consortium partners include, James Leffel & Co. turbines, Hyundai Ideal Electric Co., generators, Elgin Industries intake screens, control gates and modular power substations as well as subcontractor suppliers to Rickly Hydro Co. including, MLD Controls, Fisher Cast Steel and Kone Cranes for hydro power station and unit controls, hydraulic power units (HPU's), unit valves and controls, trash racks and fish bypass equipment. The James Leffel & Co. has been manufacturing hydropower turbines since 1862 and has thousands of installations worldwide from 200 Kw to 20 Mw. They are located in Springfield, Ohio with both engineering offices and manufacturing facilities in Springfield. Leffel turbines typically operate for decades with only minor maintenance have one current turbine site in California that has been operating for over 100 years. Leffel has an industry known reputation for excellent designs and engineering as well as quality manufacturing and materials resulting in extremely long lasting and reliable hydropower turbines.



Hyundai Ideal Electric Co. is a Mansfield, Ohio manufacturer of hydropower generators since 1903 and has hundreds of hydropower generators installed worldwide from 500 Kw to 30 Mw, both synchronous and induction generators depending on the particular site application and local power requirements. They were the Ideal Electric Co., until purchased in 2008 by the Korean industrial leader Hyundai but their generators are all manufactured, engineered and designed completely, in Mansfield, Ohio.

Elgin Industrial is the parent company for Cook Legacy, the Pickerington, Ohio based manufacturer and designer of Coanda intake screens and water control gates and Gilbert Electrical Systems, the Beaver, West Virginia based manufacturer of modular power substations and switchgear. These systems can be containerized and shipped to the site, fully engineered and factory assembled for quick seamless generator to transformer to grid connection for remote sites.

Rickly Hydro and its consortium partners have worked very closely with Ruaha Energy and Ritoch-Powell & Associates(RPA), Ruaha Energy's engineering design team, with Ruaha Energy's CEO, John Tate visiting each of the partners offices and manufacturing facilities in Ohio multiple times over the last two years as well RPA's President, Karl Obergh P.E. and Vice President, Pete Hemingway P.E.

Rickly Hydro's President, Mike Rickly P.E. has visited Ruaha Energy's offices in Dar es Salaam, Tanzania as well as site visits to the Lower and Upper Lukosi proposed hydropower sites near Iringa, Tanzania, surveying local logistics and site specifics related to delivery, installation and the operational environment at the Lower and Upper Lukosi sites. Rickly will manage and

coordinate the design and manufacturing of each particular sites complete electromechanical hydropower equipment package as well as installation, training, operational startup, testing and long term maintenance as well as manufacturing timelines and equipment order placement, export shipping services so equipment can be most efficiently and economically shipped from the best point with our Ohio partners depending on the particular equipment being containerized for ocean shipment to Dar es Salaam. Rickly has shipped containerized equipment to various remote sites throughout Africa as well as challenging environments such as Afghanistan so these considerations are often very challenging but also routinely handled by our company's shipping and freight forwarding professionals.

Rickly Hydro has committed to working very closely with Ruaha Energy and is committed to a long term partnership bring power to rural Tanzania with high quality US manufactured hydropower equipment, and expertise for long term success. We have heartily endorsed Ruaha Energy's vision and passion to supply "one million customers, one village at a time".

