

**TANZANIA INVESTMENT CENTRE
DAR ES SALAAM**

PROGRESS REPORT – Ruaha Energy Company Limited

October 2020

TIC Certificate #120068

1. Planned Activities for the period ending September 2020

Since our TIC application was approved we have; (i) completed an off-grid rural electrification project in the Kilosa District (Zombo, Kigunga, and Nyali villages); (ii) largely completed construction of a Regional Operations Center in the new Kilosa Town; (iii) and completed a number of Feasibility Studies, Grid Studies, EIA's and other project development technical documents to support the establishment of several grid-connected power generation facilities (see Section 2 hereinunder).

For the off-grid project in Zombo, in August the Minister of Energy changed the laws related to tariff structures for off-grid projects. Prior to the change the Company charged its customers a legally permitted tariff of approximately US\$0.35 per kWh for power. The Minister's change required the tariff to be reduced to TZS 100 per kWh (approximately US\$0.04), a rate that is not economical without substantial developmental institution support for village projects. While some grant support has been available in the past, most of it has been eliminated due to COVID-19, consequently, at present, off-grid projects are not feasible, consequently, the Company donated its mini-grid at Zombo to TANESCO (see letters attached), and has temporarily halted work on this business line.

The Company's second planned major category of projects, is utility scale power generation facilities (solar photovoltaic and hydropower) which deliver power to TANESCO under the terms of 20-year Standard Power Purchase Agreements ("SPPA's"). We have completed several feasibility studies, grid studies, environmental studies, and other technical studies for approximately 12 MW of grid connected projects (see Section 2 hereinunder). We have also arranged financing to support the projects which represent about US\$20 to US\$25 million in required capex investment. Unfortunately, TANESCO has not fully executed any SPPA's with private developers for the last 5 years and we have been unable to receive any credible assurances as to when TANESCO will begin moving forward with any private power projects.

In addition, when the Company initially brought forward grid-connected projects, the tariff TANESCO was required to pay was US\$0.165 per kWh. TANESCO has indicated the rate they are willing to pay is only about US\$0.07 per kWh, which of course has a major impact on the financial viability of the projects. The Company believes, in certain cases a project can be implemented at the lower tariff, however, until TANESCO begins moving forward with signing SPPA's with private developers, there is great uncertainty in this regard.

Based on these market dynamics the Company has begun to adapt its business to focus on private power development projects for industrial, commercial, and home use customers who would own the asset which would be designed, procured, and installed by the Company.

During the first 3 Quarters of 2020 we were in the planning stages for identifying the next 10 villages in the Kilosa District which we intended to electrify. The Study to undertake the work was to be partially funded by a REPDF (Renewable Energy Project Development Facility) Grant (World Bank/SIDA sponsored) which was administered by REA. REA conditionally approved the grant in September 2019 and approved the grant again in February 2020. All documentation was completed in May 2020, however, REA staff informed us in early September that due to COVID SIDA and the World Bank pulled all funding for the project so work on this initiative has halted until additional funding can be assembled. In addition, to implement these projects at the Minister's new tariff is not economical, so the Company as

noted also need to identify a source of developmental institution support to implement these planned projects.

2. **Achievements made on the project implementation to date:** We have invested approximately US\$2.1 million in our various activities since we registered our project with TIC. The capital has been raised off-shore. The completed items are;
 - A. **Pre-Feasibility Studies, Feasibility Studies, Grid Studies, EIA's, LOI's (Letters of Intent), SPPA requests;**
 - a. **Upper Lukosi River** – approximately 30 MW of viable hydropower projects identified (3 sites); studies completed, waiting for TANESCO to tender for the project.
 - b. **Lower Lukosi River** – approximately 6 MW of viable hydropower projects identified (2 sites). Waiting for TANESCO to begin signing SPPA's before we will finalize the construction drawings and submit and LOI request.
 - c. **Zombo** – 2 MW solar photovoltaic project. Request for SPPA submitted in 2017, waiting for TANESCO to begin signing SPPA's, to begin construction on the project, approximately 50% of the components have been purchased.
 - d. **Kilosa** – 1 MW solar photovoltaic project. In January 2018, the Company signed a preliminary SPPA with TANESCO for a 1 MW project in Kilosa Town on an industrial plot the Company acquired in the new Kilosa Town. Unfortunately, the SGR annexed the land for the rail extension through Kilosa so this project had to be scrapped.
 - e. **Lumuma** – 4 MW solar photovoltaic project. LOI request submitted to TANESCO in October 2019, waiting for TANESCO to review the request.
 - f. **Msowero** – 1 MW solar photovoltaic project. All studies completed, land available for the site, waiting for TANESCO to begin signing SPPA's at which time the LOI request will be lodged.
 - g. **Dumila** – 4 MW solar photovoltaic project. All studies completed, land available for the site, waiting for TANESCO to begin signing SPPA's at which time the LOI request will be lodged.
 - h. **Ilundo** – 0.6MW hydropower project. All studies completed, land obtained, water rights obtained, request for SPPA submitted to TANESCO in December 2016, waiting for TANESCO to sign SPPA's.
 - i. **Mhenda** – 0.5 MW solar photovoltaic project. All studies completed, land available for the site, waiting for TANESCO to begin signing SPPA's at which time the LOI request will be lodged.
 - j. **Malolo** – 0.95 MW solar photovoltaic project. All studies completed, land acquired, waiting for TANESCO to begin signing SPPA's at which time the LOI request will be lodged.
 - B. **Off-Grid projects**
 - a. **Malolo:** The Company constructed a power generation facility at Malolo Village, however prior to construction of the distribution network TANESCO connected the village to the grid. The Company moved the power generation facility to Zombo Village and donated the office a yard it had constructed at the village to the village. In addition, the Company acquired a plot on which it plans to build a 0.95 MW solar photovoltaic facility when TANESCO begins signing SPPA's.
 - b. **Zombo:** The Kilosa District Council asked the Company to prioritize Zombo Village as a location for an off-grid project. The Company installed and commissioned the project in 2016, and it has been running since that time. The grid was extended to the village and TANESCO began connecting residents to the national grid in 2019. The Company donated its distribution network to TANESCO and will be moving the power generation asset to a new location which is currently under review. The Company also applied to TANESCO to expand the site to a 2 MW solar facility that would sell power to TANESCO. Land has been acquired and a central office has been constructed in the village.

c. **Kigunga:** Kigunga village is approximately 2.5 kilometers south of Zombo. The Company extended its min-grid to Kigunga in 2017 and it has been operational since that time. The Kigunga site is included in the grid that was donated to TANESCO.

d. **Nyali:** Nyali is a village about 2 km to the west of Zombo, the Company constructed a mini-grid in the village, however, when TANESCO extended the grid to Zombo, the Company discontinued construction of the connection between Zombo and Nyali as that will be undertaken by TANESCO, however, the mini-grid in the village has been donated to TANESCO.

C. Regional Operations Center: The Company acquired approximately 50,000 square meters of property in the new Kilosa Town to serve as its base of operations for its Kilosa grid and off-grid projects. The Company has constructed an office/dormitory, fenced yard, go-down, workers living unit, water well, etc. on the site.

3. Provide updated information on the following aspects:

S/No.	Information	Description	Current Project Status
1.	Shareholder's Information	Current Shareholders names, nationality and percentage of ownership	John Tate, USA, 11.98%
			Pratt Holdings, LLC, USA, 1.25%
			HDO Holdings, LLC, USA, 7.67%
			Continental Energy Corporation, Canada, 0.37%
			Pan African Management and Development Company Inc., USA, 55.78%
			Younghee Han, USA, 17.81%
			Salim Abdallah Zagar, Tanzania, 0.44%
			Seocho Gu, Korea, 4.49%
			Nurdin Omary Abdulghafur, Tanzania, 0.21%
2.	Company Communication Information	Email address	jtate@ruahaenergy.com
		Mobile Number	#0787-545275
		Land Line	#22-245-1606
		Physical Address	Plot 16, Block B, Kibaoni, Kilosa, Morogoro
3.	Contact Person	Name	J. Tate
		Position	CEO
		Communication details (email, mobile, telephone)	Same as 2 above
4.	Incorporation	Certificate of Incorporation No.	101726
5.	TIN information	TIN Certificate No.	123-939-603
6.	Project Objective	Project Core Activity	Original plans for power generation and distribution are on hold pending TANESCO signing SPPA's, new business opportunities are being developed in the meantime
7.	Capacity	Project capacity per year	20 to 30 million kWh at planned capacity
8.	Direct Employment	Foreign Men	0
		Foreign Women	0
		Local Men	Approximately 20
		Local Women	0
9.	Indirect Employment	Estimated Total No.	0

4. **Project Financial Expenditure to date (USD)** *n.b. numbers through year end 2019, audited statements for 2020 not available until the 1st Quarter of 2021.*

	Foreign (USD)	Local (USD)	Total (USD)
Land and Buildings		\$ 283,722	\$ 283,722
Plant and machinery		381,736	381,736
Vehicles/Aircraft		213,127	213,127
Furniture/Office equipment		78,991	78,991
Insurance cover		7,174	7,174
Pre-operational expenses		1,134,561	1,134,561
GRAND TOTAL		\$ 2,099,311	\$ 2,099,311

5. **Project Financing: Explain how the project is being financed, e.g. equity, loans, sources of loans, conditions, etc.** *n.b. estimates provided represent the required investment for the projects listed in item 2A above. The estimates represent the amount of debt and equity the Company expects to be required to install and commission these projects based on current market input prices.*

	Amount (USD)	Source Country
Local equity	Approximately US\$20,000	Tanzania
Local loans	No loans have been taken to date. The Company has tentative commitments under a World Bank sponsored loan program administered by REA and TIB Development Bank to provide to initially provide up to US\$700,000, for early stage projects. The line can be increased as more projects are brought on line. The credit lines is being arranged through Azania Bank. The Company has also received a tentative commitment for financing from Bank of Africa under a facility supported by the Agence Francaise du development. The initial commitment is for US\$500,000, the line can be increased to €2 million. These facilities cannot be finalized until TANESCO signs SPPA's with the Company. There is always a risk that the lenders will back out of the lines if TANESCO delays signing the SPPA's beyond 2021. The Company and its lenders are targeting a Debt:Equity ratio of 60:40, for the planned project this represents an estimated US\$12 to US\$15 million in debt financing that will be split between local and foreign loans.	Tanzania
Foreign equity	The Company and its lenders are targeting a Debt:Equity ratio of 60:40, for the planned project this represents an estimated US\$8 to US\$10 million equity investment	USA, Korea, Canada
Foreign loans	The Company has signed a term sheet with the REPP (Renewable Energy Performance Platform) a UK based lender for a US\$1.5 million construction loan, which can be increased if needed. Again here is always a risk that the lenders will back out of the lines if TANESCO delays signing the SPPA's beyond 2021. The Company and its lenders are targeting a Debt:Equity ratio of 60:40, for the planned project this represents an estimated US\$12 to US\$15 million in debt financing that will be split between local and foreign loans.	UK, US
Total Investment	US\$20 to US\$25 million for planned projects	

6. **Problems and Solution:** None.

7. **Future Plans:** While the Company waits for TANESCO to begin signing SPPA's and while we search for developmental institution support that would enable us to undertake additional off-grid projects, we are developing business activities with private customers (industrial operations, commercial enterprises, and individual home owners) so we can utilize the staff, facilities and equipment, we have developed over the years working our off-grid and grid projects. We expect to design, finance, build, and transfer these facilities to the customers. We will import the materials needed for the installation.

8. **Recommendations/Comments:** None.