IN PURSUIT OF A CIRCULAR ECONOMY AROUND RENEWABLE ENERGY IN NORTON

A BLUEPRINT FOR GROWTH

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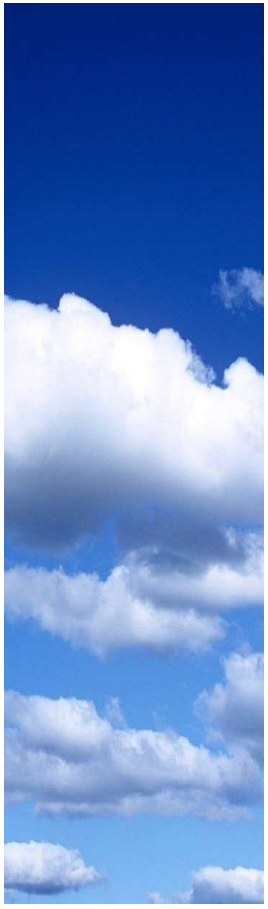

About EarthForce

- **Craig Naude: Chief Technology Officer**

  A Renewable Energy developer with 19 years of experience in Renewable Energy in Europe and Africa, financial and investment management experience in the USA and 30 years of business experience in Africa

- **Roland Rich: Chief Agronomy Officer**

  He holds a degree in Agriculture and farmed in Zimbabwe for 30 years before setting up his own milling business and becoming an expert on biomass feedstock crops in the region

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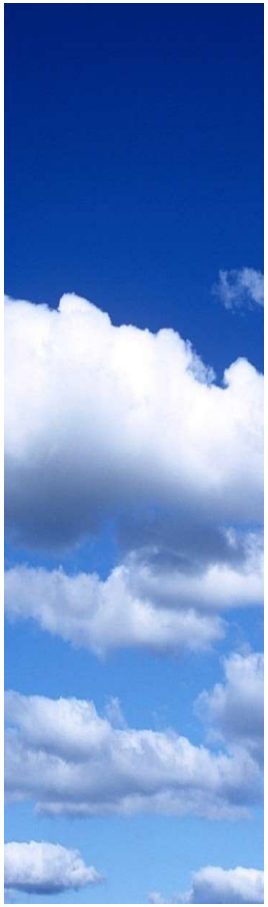

The Backdrop

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Energy Sufficiency is a National Economic Driver and a Critical Precursor to Business Success

- Energy is a fundamental driver of development
- Lack of electrical energy affects both urban and rural communities and results in chronic food shortages
- Lack of power is a significant factor in reduced economic output
- Chronic shortages make it virtually impossible for communities to thrive economically and for city/town councils to deliver their mandated services

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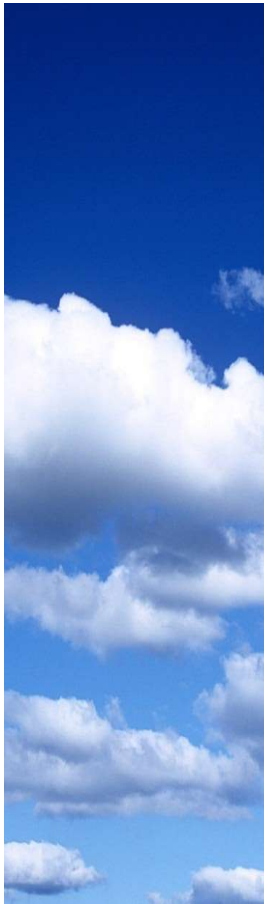
Contaminated Water Spreads Disease

- Diseases like Cholera, Typhoid and Amoebic dysentery are endemic to the country due to poor waste/effluent management
- These diseases kill more people annually in Zimbabwe than Covid-19 did in 3 years

It’s a national problem, which leads inevitably to Human/Wildlife conflict

- Poverty drives land pressure and wildlife pays the price



How We Got Here

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Worked in European solar pv and wind sector

Understand the value of baseload power generation technologies:

- Biomass Combined Heat and Power (“Biomass CHP”)
- Anaerobic Digestion (“AD”)

The technologies are well established throughout Europe and are ideally suited to African conditions

- Not too complex for local contractors
- Local materials can be included
- Large tracts of land to grow biomass feedstock crops

Norton City Council Query: can our technologies help to mitigate the river contamination from their WWTP?

Answer: Yes they can

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The result is a unique business model which is holistic, scalable and sustainable and which creates a circular economy in the communities around the installations

Drivers of Our Vision

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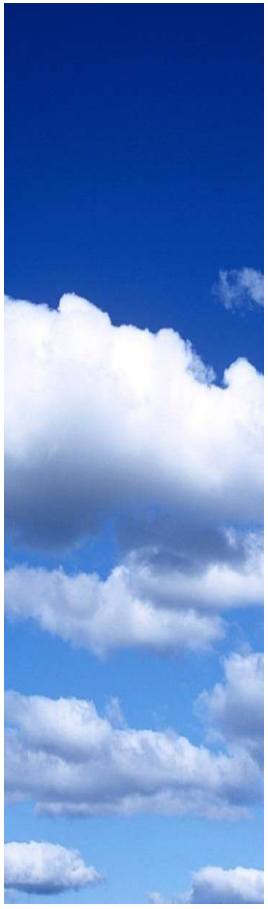

1. The numbers **must** work

- Energy generation at or below ZESA costs is the key outcome
- Capital costs need to fall within existing local loan evaluation parameters
- Alternative capital structures should ideally be available
- Address SDGs (UN and sovereign)

2. Installation and O&M processes should be simple

- Mobile Plug & Play options available
- Tried and tested technology (no “Blue Sky” stuff)
- On-site start-up and shut-down procedures must be easily understood by operating supervisors
- Pelletised BM feedstock supply must be assured
- Very competent local O&M partner

3. Our Holistic Approach

- We seek to sustain and preserve natural resources in the process of generating power
- Many alternative BM crop options, both endemic and locally grown
- We seek to address health and sanitation issues in developing our energy solutions and we carefully evaluate the use of appropriate waste streams, using them as energy sources where possible

The EarthForce Business Model

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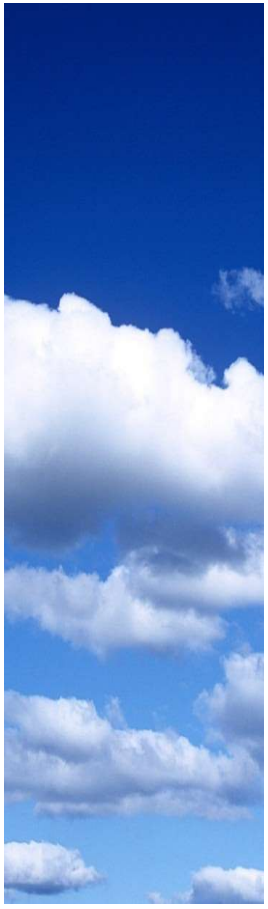

Principles

- Technical panel: Veolia (France), 2G (FRG), APL (USA), Frohling Ireland, Technosphere Zimbabwe
- Use Anaerobic Digestion to treat effluent and perishable organic waste. This generates electricity for sale to appropriate offtakers
- Co-locate Biomass CHP where there is sufficient space to secure BM feedstock production
- Synergies between the technologies make a cost-effective solution and increased energy output

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Principles (cont)…

- Co-locate solar pv to boost the total production of energy and create a solid revenue stream
- Several additional sources of revenue (high grade organic fertiliser/fly-ash, BM feedstock crops/pellets, 3rd-party energy sales)
- Revenue securitised by offshore guarantees

Principles (cont)…

- LCOE competitive with national grid cost on a 20-year investment horizon
- Secure tax/investment benefits where possible
- Secure, long-term lease
- Local and international funding

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The Unique Selling Proposition

- 24/365 baseload power
- 20-year investment horizon
- Strong financials (18-26% pre-tax IRR)
- Diversified, US$ revenue streams

The USP (cont)…

- Replicable, scalable, sustainable
- Regionally appropriate
- Significant local content
- Long-term skilled job creation
- Addresses health, energy, water SDGs

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The Norton Project

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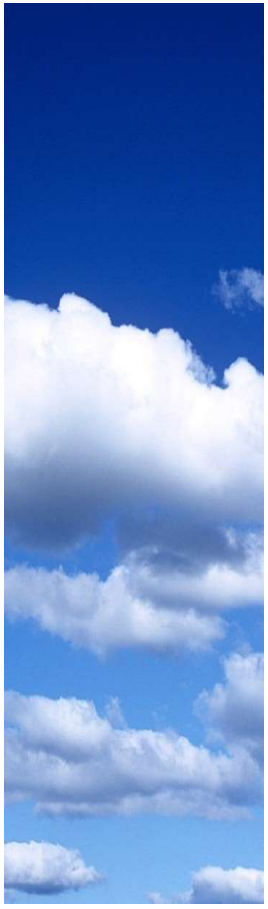

Norton: A Pilot Project

- Phase 1: Initial installation of only 200kW of AD and 300kW of BM CHP to demonstrate Proof of Concept
- Phase 1/Start-up costs of ~US$1mill
- Expected implementation timeframe of 14-16 months
- Completion of Phase 1 facilitates verification of overall EPC price and full implementation in 3 further stages (16-19 months subsequent to Phase 1)

Project Milestones

- Signed MOA/lease with Norton Town Council to implement the full project in the private sector
- Funding commitment by strong local/regional funding provider OM (debt and equity), subject to financial close
- Full Pre-Development Study completed
- Draft 3rd-Party PPA (externally securitised)

Project Drivers

- ~40 mill litres slurry/yr per 1MW AD output
- ~6 mill kWh electricity/year per 1MW AD installation
- ~4,000MT high grade fertiliser/year per 1MW AD installation
- ~30,000 TCE Credits/yr per MW of AD (CH_4 destruction)
- ~8 mill kWh/yr electricity per 1MW BM installation
- ~2.1 mill kWh/yr electricity per 1MWp solar pv
- 20-year investment horizon; potential 50-yr asset life

Final Observations

- Our “Waste Hub” model is replicable, scalable and cost-effective
- There is a significant regional requirement for this model
- We aim to make Zimbabwe a Centre of Excellence in these technologies and to develop vocational training facilities for maintenance technicians