

OUR PURPOSE

To supply reliable and affordable electricity to the country, be available on the CEB grid and consolidate our position as a major player in the production of renewable energy


OUR BUSINESS MODEL

We deliver value by ensuring a regular and reliable supply of electricity to the CEB and to our partner, Terra's sugar mill. Our business model requires that our energy is available on demand; we strive to respond as quickly and efficiently as possible to calls for production from the CEB, and to continuously maintain a reliable supply by avoiding breakdown incidents and minimising disruption from any incidents that might occur. As our plant currently works close to its peak capacity, our opportunity for additional revenue generation derives primarily through optimising the efficiency of Terra's sugar mill, thereby reducing their share of energy usage and releasing further capacity for sale to the CEB network.

As part of our commitment to drive renewable energy in Mauritius and decarbonise our energy inputs, we are continually looking for opportunities to substitute coal with *bagasse*, cane trash and other biomass sources. We also maintain a strong focus on safety and health, and on continually identifying opportunities to improve our environmental management, particularly water consumption and dust emission.

Terragen is a power producer that supplies electricity to the Central Electricity Board (CEB), as well as electricity and steam to Terra's sugar mill, through two 35 MW thermal units. Operating in a joint venture partnership with French company Albioma, we generate electricity and steam by burning bagasse and cane trash during the crop season (from July to December), and imported coal during the intercrop season.

CAPITAL

People


MATERIAL INPUTS (2018)

48 employees with the appropriate technical skills and motivation

MATERIAL OUTCOMES (2018)

Zero accidents
Injury rate: 0
Lost day rate: 0

Manufactured


1 generation plant of 450 GWh capacity
Two units of 35MW operating on three types of fuel: Coal, bagasse, trash

420.6 GWh produced, constituting around 15% of the national energy mix

Natural


192,798 tonnes of coal ▲ 2%
252,940 tonnes of bagasse ▼ 14%
8,247 tonnes of sugarcane trash ▲ 13%
1,578,574 million m³ of water ▼ 7%

449,973 tonnes of CO₂ (coal) ▲ 3%
213,816 tonnes of biogenic CO₂ (bagasse) ▼ 14%
12,289 tonnes of biogenic CO₂ (cane trash) ▲ 10%
Zero environmental emergency situations

Social


Our business model depends on maintaining quality relationships with key stakeholders including: CEB, Terra Milling, regulatory authorities, small-scale planters, suppliers and employees

Employee turnover rate: 10%
MUR 33.1 million payment in taxes
MUR 4.5 million of CSR contribution

Intellectual


First Mauritian firm to be granted in 2014 an AFNOR certified integrated management system certificate based on ISO 9001, ISO 14001 and ILO OSH 2001

93.1% availability on CEB network
Reliability: 5 plant trips
Specific coal consumption: 604 g/kWh

Financial


Terragen total equity (Jan 2018):
MUR 828.3 million
Total borrowings : Nil
Capital expenditure:
MUR 42.1 million

Turnover:
MUR 1,450.6 million ▲ 8.3%
Profit: MUR 199.1 million ▼ 5.9%
Terragen total equity (Dec 2018):
MUR 816.2 million
Net cash and cash equivalents:
MUR 73.0 million

MATERIAL ISSUE IMPACTING VALUE CREATION OUR RESPONSE

<p>Dependency on a primary client – Being heavily dependent on a single client, changes in the power purchase strategy of our client can impact the sustainability of our industrial model.</p>	<p>We continue to invest in maintaining our ability to provide a regular and reliable supply of energy. This has been another pleasing year, with exemplary availability levels and competitive pricing contributing to a sustained positive client relationship.</p>
<p>Potential regulatory changes – Changes in environmental regulation could require significant investment in new equipment and possible changes to current processes.</p>	<p>We engage regularly with authorities to keep abreast of potential regulatory changes and ensure that appropriate measures are taken. We are identifying opportunities to minimise our emissions and reduce the use of coal by increasing the use of cane trash and other biomass sources in the energy mix.</p>
<p>Unplanned disruption to generation or transmission activities – Unplanned outages, associated for example with a fire, mechanical breakdown, cyclone activity or disruption in the coal supply chain, could impact the ability to deliver energy.</p>	<p>We have a preventative maintenance programme and clear risk management processes and response measures in place. We have a safety bulk storage of coal onsite and have diversified to several coal suppliers. The power plant is designed to withstand cyclonic gusts of up to 260 km/h.</p>

OUR 2018 PERFORMANCE

This year, we generated 420.6 GWh of electricity, at 93.1% availability, contributing to profitability of MUR 199.1 million, slightly down from MUR 214.9 million in 2017. We have invested, in partnership with Terra Milling to further enhance operational efficiencies in the sugar mill process, even if performance results were not fully achieved due to slow downs in the sugar mill operation during the crop season. Although our annual scheduled shut-down for maintenance was slightly longer than last year due to the nature of the required work, it was completed ahead of schedule.

DECARBONISING OUR ENERGY MIX

We have maintained a strong focus on delivering on our commitment to decarbonise our energy mix by shifting from coal to biomass, with particular emphasis this year on further increasing the use of cane trash. We continue to invest in our processes for managing this alternative raw material input and work collaboratively with Terragri's field teams to increase the collection, compacting and transportation of cane trash. As a result, we have further improved our cane trash collection despite a lower quantity of sugarcane harvested in 2018. We generated 7.5 MW using 8,247 tonnes of cane trash, up from 7,526 tonnes collected in 2017.

We have also started exploring the viability of growing and burning eucalyptus as an additional source of biomass. Our drive to increase the use of *bagasse*, cane trash and other biomass provides a valuable opportunity to enhance the 'greening' of energy generation in Mauritius, and to reduce the island's coal imports. The ability to do so is contingent, however, on ensuring a competitive cost and price structure, and on maintaining the sustainability of the cane industry.

We made further progress this year with our carbon burnout project, a joint-venture between Terragen and Omnicane that is aimed at collecting ash, a by-product of coal combustion, and passing this through a re-burning process that will transform this into raw material for the production of cement. This year, 23% of our coal fly ash (5,200 tonnes) was sent to the plant, substantially up from 6% in 2017. Through this process we can reduce the carbon content from around 20% to less than 5% and reuse the energy released to produce electricity.

PLEASING SAFETY AND HEALTH AND ENVIRONMENTAL PERFORMANCE

We had another very good year in terms of safety and health and environmental performance. We achieved a zero injury rate for Terragen employees, making it two successive years without any accident causing an injury to employees. This was slightly offset by several safety incidents among our service providers; we are consequently taking steps to drive improved safety performance of our contractors.

On the environmental front, once again there were no material environmental incidents, and we achieved 100% compliance in terms of regulated atmospheric emissions. There were three chemical spillages in the year, but these had no environmental impact due to the effective response of the Terragen teams. We pay particular attention to maintaining good communication with neighbouring residents regarding any potential environmental issues, and we have implemented effective measures to address the concerns expressed in previous years regarding dust and ash emissions.

OUR STRATEGIC OUTLOOK

Our strategic focus is to maintain our high levels of availability and reliability, and to realise any opportunities to further improve efficiency. We will continue to explore opportunities to increase the consumption of cane trash and identify other potential sources of biomass that can be used as fuel. As part of long-term preventative maintenance measures, we will be conducting major maintenance works of one steam turbine and boiler grate and investing in a new air heater, replacing the roof of the machine room, and further improving our safety, health and environmental performance. Planned initiatives include: reinforcing

our safety culture at all levels with particular emphasis on external service providers; improving the effectiveness of fire prevention and protection measures; reducing water consumption and chemical use; improving the control of dust emissions; and ensuring the renewal of our QSE certification for another three-year period.

Ahead of the 20th anniversary of our Power Purchase Agreement with the CEB, in June 2020, discussions around the renewal of the contract should start in the near future.

PERFORMANCE GRAPHS

