FNB sustainable agriculture: UCL Company

UCL, a long-standing client of FNB, has been active since 1924, with operations in both local and international markets. The company specialises in the large-scale production of wattle tannin extracts, sugar and pine lumber. Additionally, the company manages 6 500 hectares of farmland and has a trading division supplying agricultural inputs. As a licence holder under the National Environmental Management: Air Quality Act 39 of 2004, UCL is required to invest in cleaner production processes to reduce water and energy consumption, waste production, chemical usage and emissions.

FNB has financed several sustainable farming projects for UCL over the last five years, aiming to maximise factory efficiency and increase the use of renewable energy, including:

Financial year	Sustainable solution	Impact metrics
2024	Third turbine alternator (TA3)	• Steam power, generated by the combustion of a byproduct of factory operations called bagasse, is used by the TA3 to generate electricity. Bagasse is the dry and pulpy fibrous material that remains after sugarcane stalks are crushed to extract their juice. • This third turbine alternator increases the powerhouse capacity from 5 MW to 9 MW, allowing the site to meet all its energy needs, power a new avocado packhouse and contribute surplus clean electricity to the Eskom grid. Estimated annual energy cost savings of R2.2 million.
2022	Solar	The system is estimated to produce 363 660 kWh of power, preventing 378 tCO_2e emissions and saving R516K annually in energy costs.
2022	Co-generation	• Upgrade of plant infrastructure, optimising energy production. • Surplus power of up to 450 kW generated, which is returned to the Eskom grid. • Estimated annual energy cost savings of R1.2 million.

Financial year	Sustainable solution	Impact metrics
2022	Steam turbine generator upgrade	• Current steam generation of 3 MW increased by a further 3.5 MW to provide additional capacity in the event of a power interruption, thereby reducing the need for diesel generators. • Estimated annual energy cost savings of R2.2 million.
2020	Step grate furnace	• Heat energy substitution from burning coal to biomass woodchip bagasse. • Estimated saving of 3 200 tons of coal per season, which translates into an annual saving of R1.64 million.

** Assumptions used:*

(1) Average cost of solar plant: R16 000 per kW (internal data based on large plants financed by FNB).

(2) Average tariff paid to Eskom by commercial customers: R1.40 per kW (internal data based on actual customer utility bills).

(3) Average irradiation kWp: 1 450 kWp (internal data).

(4) Eskom emissions factor (factor I).

The installation of the TA3 at UCL's manufacturing powerhouse in Dalton, KwaZulu-Natal in April 2024 significantly **advances the company's green energy initiative** through its expansion of the current powerhouse capacity, enabling the site to meet all its energy needs and **contributing surplus clean electricity back into the grid.** TA3's integration into the factory's energy system allows it to become fully independent from external power supplies, such as Eskom, which uses coal-based generation. This will not only reduce the company's carbon footprint but also strengthen factory operations against external disruptions, including loadshedding.