Case Study:

Reducing Energy Costs at Gina Corporate Clothing, a South African Clothing Manufacturer, Through Targeted Interventions

For over eight years, Gina Corporate Clothing has been monitoring its energy consumption across multiple buildings. Like many energy-intensive businesses in the manufacturing sector, they faced rising costs, increasing demand levies, and a growing need for a more sustainable and predictable energy model. Through a combination of data analysis, strategic upgrades, and energy optimisation, particularly around lighting and solar implementation, Gina Corporate Clothing has made significant strides in reducing both its KVA demand and monthly energy spend.

Between 2017 and 2024, Energy Cost Savers collaborated closely with the client to identify areas of waste, propose practical interventions, and guide the implementation of improvements that directly impacted operating costs.

The Energy Profile: 2017–2024

From 2017 to 2020, Gina Corporate Clothing recorded an average total KVA usage of well over 700,000 per year across all buildings. Electricity bills during this time were high and continued to climb in tandem with increased production activity and national energy pricing trends. Additionally, they faced substantial demand levies, which often exceeded R600,000 per year.

Faced with these escalating costs, the company was determined to take measurable action that would not only reduce expenses but also support its commitment to operational sustainability.

Key Interventions

Two key interventions were made, both of which delivered long-term impact:

1. Solar Installation (June 2019):

A solar PV system was installed at the main facility, offsetting a significant portion of the building's daytime energy usage. The installation allowed the company to reduce its dependency on the grid during peak operating hours, and as a result, kVA usage dropped by almost 60,000 from the previous year. This was a crucial step in flattening energy demand and reducing demand-related penalties.

2. LED Lighting Retrofit (Early 2021):

Outdated and inefficient lighting across the factory floor, offices, and warehouse was replaced with energy-efficient LED lighting. This retrofit further contributed to demand reduction and

improved energy visibility. LEDs also offered better lighting quality and longer life spans, reducing maintenance requirements.

The Impact of Load Shedding

It's important to note that in 2023, the country experienced sustained and severe load shedding, which led to an artificial drop in recorded KVA usage. While this appears on the surface as a "saving," the reality was that diesel generators were heavily relied on to maintain operations. The associated diesel costs, though not captured in the electricity spend, were substantial and highlight the hidden costs of grid instability.

This underscores an important insight: energy efficiency is not just about reducing electricity bills, it's about ensuring resilience, predictability, and sustainable control over energy sources.

Energy Consumption Breakdown

Here is a breakdown of electricity consumption and related costs from the manufacturer's main building (#44), which reflects the cumulative effects of solar, LED, and broader efficiency measures:

Year	kVA Usage	Cost of Usage	Demand Levy
2017	513,496	R622,619	R479,262
2018	521,851	R667,812	R478,820
2019	464,398	R651,897	R577,574
2020	378,925	R591,509	R652,326
2021	373,162	R638,599	R677,908
2022	335,499	R634,179	R635,300

2023	266,372	R562,647	R680,333
2024	304,852	R680,079	R699,011

Across these 8 years, the company achieved a 40 %+ reduction in KVA usage from its 2018 high, even as operations continued and expanded in some areas. These improvements, driven by targeted infrastructure upgrades and ongoing monitoring, have not only cut down on monthly billing but also helped stabilize usage trends and reduce the company's exposure to volatile utility tariffs.

Lessons Learned

This case study demonstrates the powerful cumulative impact of simple, strategic interventions:

- Solar and LED technologies are not just environmentally friendly — they have a direct and measurable effect on operational expenses.
- Demand levies, while often overlooked, can account for a significant portion of total energy spend and should be actively managed.
- Visibility into usage patterns is critical, especially when external factors like load shedding or generator usage distort the bigger picture.

At Energy Cost Savers, our role was to help Gina Corporate Clothing move from data to action. By identifying the right areas to intervene, supporting the implementation of change, and monitoring the results, we helped unlock long-term energy savings and cost control, with no disruption to production.

This clothing manufacturer is a strong example of what's possible when energy waste is not just identified, but actively addressed. Through collaboration, data-driven decision-making, and a willingness to act, the company has set a benchmark in energy efficiency for the South African manufacturing sector.

At Energy Cost Savers, we bring this same level of focus, insight, and commitment to every client engagement. If your business is ready to take energy savings seriously, and implement changes that deliver measurable ROI — we are here to help!