

# SBEL–Praj Partnership Behind Zambia's Gold-Winning ENA

In the contemporary global beverage-grade alcohol market, the margin between a standard commodity and a premium ingredient is defined by microns of purity and the absolute consistency of organoleptic profiles. For industrial producers operating in an increasingly sophisticated landscape, a "quality obsession" has transitioned from a peripheral advantage to a fundamental strategic necessity.

**T**his commitment to uncompromising quality has now earned international recognition for Southern Bio Energy Limited (SBEL) and its technology partner, Praj Industries. The partnership reached a significant milestone with the announcement of the 2026 Monde Selection Gold Quality Award, one of the most respected independent recognitions in the global quality landscape. The award signals to international beverage manufacturers, procurement leaders, and industry stakeholders that Zambia-based SBEL now stands alongside some of the world's most established producers of premium extra neutral alcohol (ENA).

## Shared Vision

The accolade is more than a mark of distinction; it is a validation of a shared vision. It demonstrates how strategic collaboration, advanced engineering, and operational excellence can combine to create a product capable of meeting the world's most stringent standards. At its core lies a mission centred on delivering world-class quality from the heart of Zambia.

Southern Bio Energy Limited, an ISO 9000, ISO 45001, and FSSC 22000 certified company, has strategically positioned its operations in Mazabuka, Zambia, transforming the location into a vital hub for premium, high-purity alcohol production within the African sub-region. By establishing a facility of this calibre,



Atul Mulay

SBEL has demonstrated that geographic location is no longer a limitation in achieving global purity benchmarks. Instead, it represents an opportunity to strengthen and de-risk supply chains for leading international beverage companies.

## Non-negotiable Consistency

As a trusted supplier to organisations such as Heineken and Castel, SBEL operates within an ecosystem where consistency is non-negotiable. These relationships demand an uncompromising commitment to ENA purity, as even minor variations can impact the quality and brand integrity of globally recognised consumer products.

The operational success of the Mazabuka facility is perhaps best illustrated by its ability to surpass original design expectations. While commissioned with a nameplate capacity of 60 kilolitres per day (KLPD),

SBEL's optimised management practices and quality-focused culture have successfully scaled production to 70 KLPD. This 16% increase in throughput, achieved while maintaining stringent purity specifications demanded by international customers, reflects a rare capability to balance scale with precision.

"Our trajectory at SBEL is defined by a 'quality-first' philosophy that informs every litre of ENA we produce. By aligning our operational goals with Praj, our technology partner, we have moved beyond simple manufacturing to achieve parity with the world's most elite distillers and to become a trusted pillar of the global supply chain. This partnership ensures that our Zambia-made product is synonymous with premiumness and international excellence—on sensory, purity, process, and service reliability," shares Divya Reddy Shah, Chief Executive Officer, Southern Bio Energy Limited.



Divya Reddy Shah

## High-purity Alcohol Production

The achievement reflects not only operational excellence, but also the critical role of technology in enabling consistent quality. In the highly specialised domain of high-purity alcohol production, a technology provider must function as a co-custodian of the final product's quality. Praj Industries has fulfilled that role by providing the engineering expertise and process technologies required to transform molasses into world-class extra neutral alcohol.

Central to this transformation are Praj's proprietary HiFerm fermentation platform and EcoFine distillation system. HiFerm is designed to address the inherent variability often associated with agricultural feedstocks, ensuring process stability even when molasses quality fluctuates. This stable fermentation platform creates the ideal foundation for the EcoFine system, which employs multi-pressure distillation technology to refine the wash with exceptional precision.

EcoFine's ability to selectively remove congeners such as fusel oils and aldehydes is particularly significant. The result is ENA with the neutral sensory profile and chemical purity required by premium beverage manufacturers across global markets.

The facility's technical capabilities extend beyond alcohol production. A beverage-grade CO<sub>2</sub> recovery system, fully compliant with International Beverage Technologists (IBT) standards, ensures that by-products meet the same stringent compliance requirements as the primary output. Combined with robust quality systems and consistently reliable operations, these capabilities have enabled SBEL to onboard globally recognised beverage companies including The Coca-Cola Company and PepsiCo, further reinforcing its position as a trusted supplier to leading international brands.

Praj's technologies also integrate seamlessly with the plant's supporting infrastructure, including the high-efficiency boiler and evaporation systems. This integrated approach ensures that the facility can sustainably achieve its optimised 70 KLPD production capacity without placing undue strain on utility resources, thereby enhancing both operational efficiency and environmental performance.



## Meeting Stringent Global Specifications

As one of the world's leading beverage companies, Heineken—the end customer for product originating from SBEL's Zambia facility—maintains exceptionally high standards for ingredient quality, consistency, and traceability across its premium portfolio. Suppliers are assessed not only on production capability, but also on their ability to consistently deliver neutral alcohol that meets stringent global specifications for taste, purity, and process reliability.

"Achieving world-class excellence in the Zambian context required more than just equipment; it required a collaborative engineering effort that respects the local environment while demanding global results. Our work with SBEL proves that when advanced technology is paired with local operational vision, the result is a product that can stand on a world stage. Praj has been serving the African region for over three decades with multiple references among leading distilleries, bringing deep process expertise and proven technologies tailored to regional requirements," stated Atul Mulay, President – Corporate Strategy, Praj Industries.

These technical strengths ultimately form the foundation for the international recognition that followed. The 2026 Gold Quality Award from Monde Selection serves as independent validation of the quality standards achieved through the SBEL-Praj partnership.

Widely regarded as one of the world's most respected quality institutes, Monde Selection subjects products to a comprehensive evaluation process that extends far beyond conventional laboratory testing. The assessment combines scientific analysis with sensory

evaluation, creating a benchmark that resonates equally with technical experts, beverage manufacturers, and global procurement teams.

The evaluation is conducted by a panel comprising oenologists, master sommeliers, chemical engineers, and industry specialists. Products are assessed across more than 30 parameters covering organoleptic excellence, chemical purity, product consistency, and overall quality performance.

The Gold Quality Award, representing an overall score between 80 and 89%, confirms that the ENA produced through the combined expertise of SBEL and Praj satisfies some of the most demanding quality standards in the world. Beyond recognising product excellence, the award sends a powerful signal about Africa's growing capabilities in high-value industrial processing. It demonstrates that the continent can not only compete with established global producers but, in many cases, exceed expectations.

The journey of Southern Bio Energy Limited from its inception in 2023 to becoming a 2026 international gold medal winner is a compelling example of what industrial collaboration can achieve. By combining SBEL's operational discipline and strategic ambition with Praj Industries' technological expertise and engineering excellence, the partnership has delivered a world-class outcome in a region often overlooked in discussions about high-purity alcohol production.

## Blueprint for Africa's Alcobev Sector

As the Mazabuka facility continues to operate at an optimised 70 KLPD, it offers a blueprint for the future of Africa's high-purity alcohol industry. The achievement demonstrates that with a relentless commitment to quality and the right technological partnerships, African manufacturers can do far more than participate in global markets—they can help shape them.

The Monde Selection Gold Quality Award marks the beginning of a new chapter for Zambia's industrial sector and stands as evidence that global excellence can be engineered anywhere when vision, technology, and execution work in harmony. 🍷