Golden Arrow Bus Services (Pty) Ltd (GABS)

Project Description:
Golden Arrow Bus Services Fleet Upgrade

Golden Arrow Bus Services (Pty) Ltd (GABS) is a scheduled passenger transport operator in the City of Cape Town. It owns and operates a large fleet of buses. It currently operates in excess of 1 000 buses during peak hours, serving 1 300 routes. GABS has focused on improving the fuel efficiency of its bus fleet. GABS continuously introduces new, more fuel-efficient buses to its fleet.

The modern buses are used more frequently than the older, less-efficient buses that are still in the fleet. GABS has also focused on increasing fuel efficiency by optimising maintenance practices and conducting driver training. An example of the modern buses used by GABS are MAN LION EXPLORER buses which have D08 and D20 common rail engines which increase fuel efficiency. The modern buses have optimised designs that use lightweight components to reduce fuel consumption per kilometre and also have optimised passenger carrying capacity.

The energy savings realised and the applicability to access section 12L of the Income Tax Act was assessed by Catalyst Energy Solutions (CES), a division of Catalyst Incentive Solutions (Pty) Ltd. CES was appointed to perform measurement and verification of the energy efficiency savings resulting from this project.

The Baseline measurement and verification option selected from the national standard for measurement and verification (SANS 50010:2019), was – Option B (Whole Facility). The Performance assessment period was from 01 April 2016 to 31 March 2017, and the performance of the entire fleet before the intervention was compared to the performance of the fleet after the intervention.

Key Achievements

- Reduction in energy consumption: 2.5%
- Energy saved: 6 767 153 kWh equivalent (Using the Calorific Value of 38.1 MJ/l)
- Money saved: R1 800 063 million
- GHG Mitigated: 2 014 tCO₂e

Note: All figures quoted are based on a 12-month reporting period and exclude monetary savings from a reduced energy bill and/ or any potential Carbon Tax impacts.
Who was involved?
Taxpayer
Golden Arrow Bus Services
M&V Inspection Body
Catalyst Energy Solutions
Regulatory Body
SANEDI

How to Access a Section 12L Tax Incentive?

Baseline
Identify Energy Saving Measure
Determine M&V Boundary
Gather Data
Develop Baseline
Sign-off from a SANAS-accredited M&V Body
Submit to SANEDI for Approval

Gather Data
Implement Energy Saving Measure
Install Measurement Equipment
Measure and Monitor Project (12 months)
Gather Data
Draft Performance Assessment Report
Sign-off from a SANAS-accredited M&V Body
Submit to SANEDI for Approval

Determine Energy Savings Against the Baseline
Draft Performance Assessment Report
Sign-off from a SANAS-accredited M&V Body
Submit to SANEDI for Approval

What is the Energy Efficiency (12L) tax incentive?

The 12L Tax incentive, according to the Income Tax Act, 1962 (Act No. 58 of 1962), provides an allowance for businesses to implement energy efficiency savings. The savings allow for a tax deduction of 95c/kWh saved on energy consumption.

The incentive applies to all energy carriers (not just electricity), with the exception of renewable energy sources. For the eligibility to claim the deductions, measurements must be kWh equivalent. The verified and measured energy efficiency saving must be over a period of 12 months known as the implementation/assessment period, which is compared to the 12 months of baseline measurement. The baseline measurement and savings are measured and verified by a SANAS accredited Measurement and Verification (M&V) Body, which assigns an M&V professional to undertake the detailed analysis required.

For enquiries, please contact us on:
+27 11 038 4300
information@sanedi.org.za
www.sanedi.org.za
@Sanedi.gov
@Energy_ZA