



The SmartFuel Solution provides a cost-effective hydrocarbon (fuel and lubricant) management, control and reporting system. SmartFuel uses intrinsically safe terminals and mobile devices to log all fuel and lubricant transactional data from the fuelling facilities both fixed and mobile. It is a fit for purpose, low maintenance Solution that provides end to end value chain right-time reporting of all transactions for effective on-site hydrocarbon management.

The SmartFuel Solution is tailored for large and small hydrocarbon operations where inventory, dispensing, usage management and control is required.



What you get with SmartFuel

The SmartFuel Solution provides significant value to customers through fuel and lubricant management, control and reporting. The key elements of hydrocarbon value chain management are addressed by the effective use of SmartFuel, such as:

- Inventory management and control
- Product transactional dispensing management and control (fixed and mobile)
- Product in use management and control
- SmartFuel operational performance tracking and reporting
- Supplier KPI performance tracking and reporting
- Hydrocarbon site team KPI performance tracking and reporting

The Solution includes:

- Transactional capturing and recording of date, time, location, product, equipment and dispenser
- Product consumption per equipment ID (high tack QR-coded ID tags)
- Reconciliation of individual equipment fuel volumes received
- Volume and product type provided to bowsers and workshops

- Historical records and database of product transactional data
- Energy consumption per individual equipment and application area
- The transactional and reporting base for the Fuel Levy rebate claim
- The SARS Fuel Levy data acquisition and reporting requirements as set out in the Act

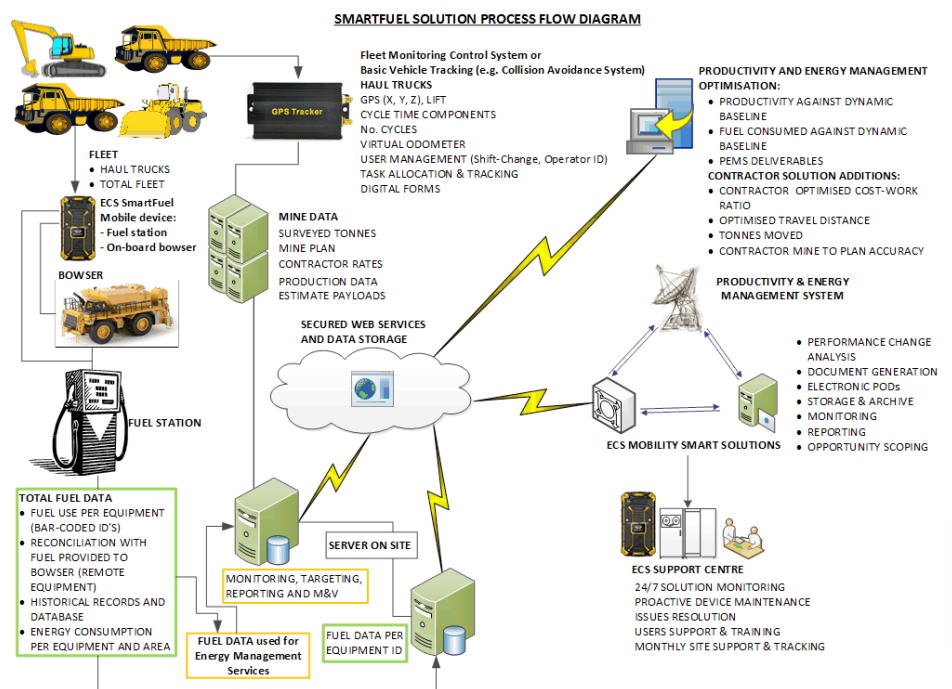
The fuelling transactional data is aligned with the SARS Fuel Levy data acquisition and reporting requirements as set out in the Act. The measurement and collection of energy consumption data is structured

to fulfil the requirements of the Department of Energy's mandatory Energy Regulations.

By design, the SmartFuel Solution is comprised of significantly less components than traditional fuel management systems and is thus more reliable - requiring lower frequency of maintenance interventions and allowing swift hardware component swap-out should the need arise.

Owned equipment and Contractor fleets where applicable are fully captured, recorded and reported on through the system.

SmartFuel Process Flow



Benefits

- Automatically and accurately records fuel transactions for fuel and lubricant dispensed to all individual machines on site (volume, date and time, machine ID and equipment location)
- Automatically and accurately records all fuel and lubricant dispensed per dispensing point (volume, date, dispensing ID and dispensing location)
- 100% paperless with minimal input from Operators
- Records machine hour and/ or odometer readings
- Automatic real-time fuel and lubricant meter reading capability
- Daily reconciliation for bulk fuel and lubricants supplied within a 2% accuracy level
- Fuel and lubricants cannot be dispensed to a specific machine or vehicle without linking the relevant transaction to that machine or vehicle
- Automatic reporting that includes all usage per individual machine and fleet type
- Reports on daily stock levels and movement rates compared to target or budget
- SARS Fuel Levy data acquisition and reporting monthly
- Reporting as per the requirements of the Department of Energy's mandatory Energy Regulations

SmartFuel can be expanded to include more products and equipment or vehicles for effective management, control and reporting.

Return on Investment

- Reduction of fuel/lube losses with specific shrinkage events reporting
- Accurate and dependable stock reconciliation
- Reduction in paper use and data capture
- Reduction in document scanning and copying
- Improvement in fuel dispensing visibility by transaction
- Allocation by product type/volume/ user/equipment/date/time/location

- Fuel usage performance reporting
- SARS Diesel Levy recovery reporting
- Improved fuel/lube inventory management
- Improved operational productivity due to optimal fuel management system
- Meets the mandatory Department of Energy's Energy Reporting Regulations

Reporting

The SmartFuel reporting requirements are agreed and finalised for each application:

- **Transactional information:**
 - Date and time of each transaction
 - Operator ID – operator who conducted the fuel transaction
 - Site ID – dispensing point where fuel transaction occurred
 - Product type
 - Product volume dispensed
 - Machine, equipment, vehicle or bowser ID that received the product
- **Automatic reporting that includes all usage per individual machine and fleet type**
- **Reporting on daily stock levels and movement rates compared to target or budget**
- **SARS Fuel Levy data acquisition and reporting monthly**
- **Reporting as per requirements of the Department of Energy's mandatory Energy Reporting Regulations**

The SmartFuel Solution will assist in managing and tracking hydrocarbon transactional operations:

- Fuel transactional data of equipment fuelled at refuelling bays
- Fuel transactional data of Contractor equipment
- Fuel transactional data of remotely fuelled equipment (Shovels, Loaders, Drills and Auxiliary equipment)
- Lubricant and oil transactional data of all consumers on site

All exceptions and discrepancies will be reviewed, validated and reported on for urgent action.

SmartFuel Key Deliverables

- Adherence to required Safety Standards and Practice
- Supply of Ex ia I/IIA T4 Ma Ga -rated IP68-rated devices suitable for use in Zone 1 Hazardous locations
- Supply of functioning mobile devices at the refuelling points and on each mobile fuel bowser
- Capability to account for fuel volumes dispensed per equipment ID and area
- Transactional data communication to data storage facilities
- Ensuring legitimacy and authenticity of transactional data
- Secure storage of historical transactional data
- Reporting platforms with readily accessible data in viewable formats
- Data format that allows for ease of integration into Energy Management Services
- Remote support for usage and maintenance of devices, with readily available replacement (back-up) devices

“Value adding and real time interventions.”

- Walt Katuruza
GES, Kudumane Mineral Resources



ECS HEAD OFFICE
Suite 5, Hillcrest Office Park, 2 Old Main Road,
Hillcrest, KwaZulu-Natal, South Africa
P.O. Box 2596, Pinetown, 3600, South Africa
Tel: +27 (0)31 7650443 • Fax: +27 (0)31 7650444

info@enerserv.co.za
www.enerserv.co.za

SABS
ISO 9001

