



# MobiFill Presentation

By **CROSSE**COM



Fuelling Excellence in RFID Solutions and Retail Automation



A faded, grayscale image of a city skyline at night, likely Chicago, with several prominent skyscrapers illuminated. The skyline is reflected in a body of water in the foreground.

# MobiFill

## Electronic Fuel Delivery & Fleet Usage System



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# Introduction









- ✓ Mobile Fuelling Station
- ✓ RFID Verification Technology
- ✓ Onboard GPS Tracking
- ✓ Mobile Data Network Connection
- ✓ Cloud Based Fuel Management








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# Product Features

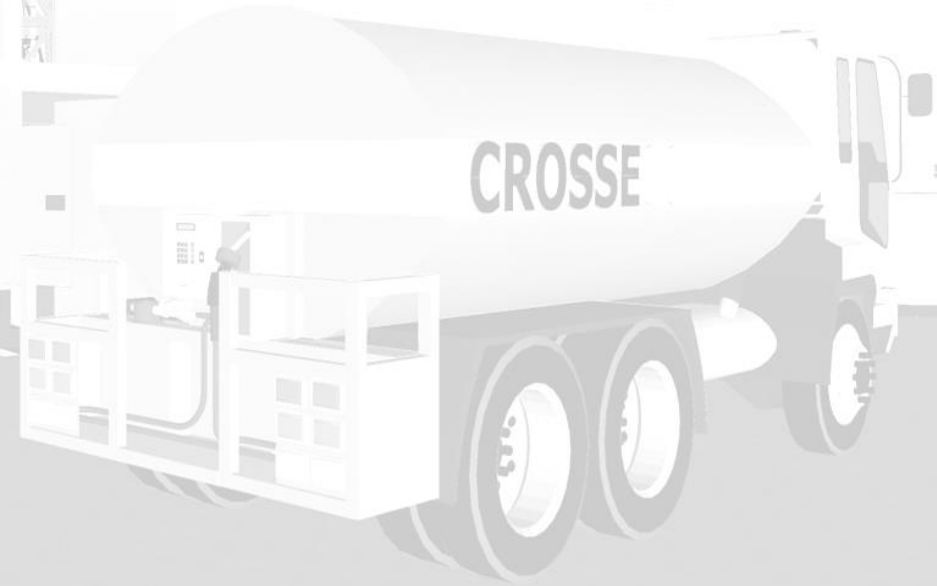
-  Uses RFID contactless technology to eliminate fraud
-  Is an innovative automatic vehicle identification and fuel monitoring system
-  Speeds up fuelling by automating pre-fuel checks
-  Eliminates fuelling paperwork completely
-  Uses passive batteryless tag requiring no connection to the vehicle electrical system
-  GPS tracking of vehicle and events (sales, exceptions)

# Product Features






-  Easy, simple, quick and inexpensive to fit—little downtime
-  Has virtually unlimited life for batteryless vehicle tag
-  Tags are rendered inoperative if removed from vehicle
-  Optional pinpad odometer reading entry for fuel usage reporting
-  Virtual tank levelling (when used with Crossecom FASTFILL site system)

# System Features

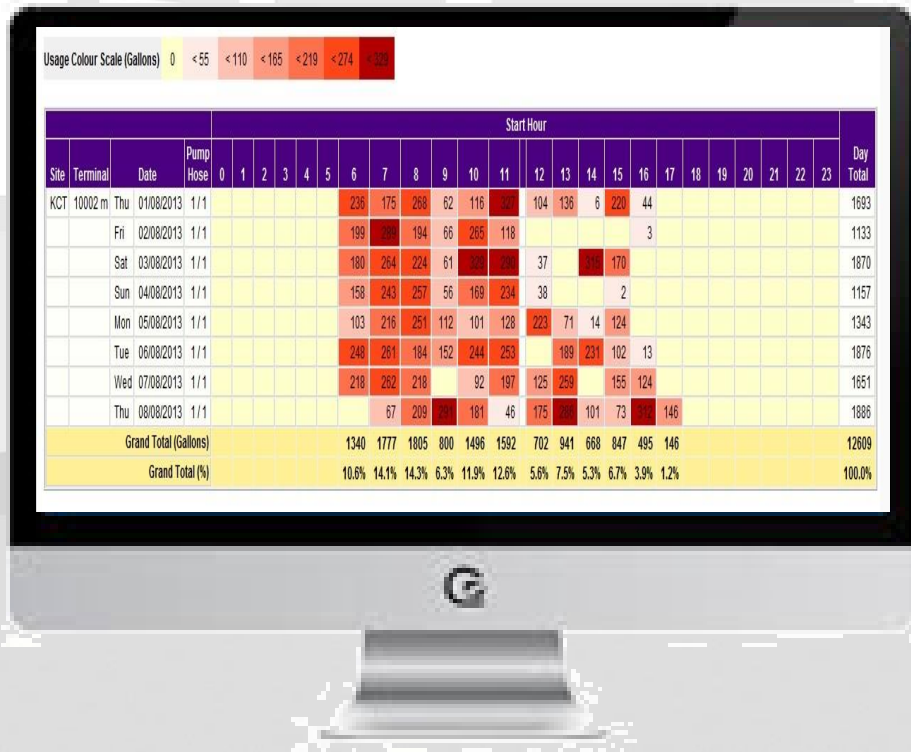
-  Minimises filling attendant intervention
-  Reduces fuel shrinkage
-  Optimises control over fuel sales
-  Reduces filling process time
-  Improves fleet fuelling security



# System Features

-  Ensures only authorised vehicles are fuelled
-  Allows budgeting of fuel usage for individual vehicles or groups
-  Eliminates need for logbook documentation
-  Provides full audit trail
-  Allows emergency fillings of non-authorised vehicles when necessary — with full audit trail

# Report



- Sale Enquiry
- Sale Map
- Sale Heatmap
- Mobile Pump Activity
- Dashboard



# Sale Map Report



- ✓ Mobile Tanker ID
- ✓ Date and Time
- ✓ Amount Fuel Dispensed
- ✓ Vehicle and Driver
- ✓ GPS Location

# System Component

Vehicle Tag



This is a small **batteryless** electronic data storage unit (20-50mm in diameter) **epoxied** to the vehicle near the fill pipe. It can contain information such as vehicle details, owner identification, driver identification, fuel type etc.

The tag uses RFID contactless communication techniques to release its details to the authorising reader. This technique employs two-way authentication allowing only genuine authorised tags to ensure the correct fuel is pumped into the authorised vehicle.

To prevent fraud, a high security challenge and response crypto-algorithm is used.

# System Component

## Nozzle Antenna / Reader



The antenna, mounted conveniently on the dispensing nozzle spout, comprises a small loop antenna with its low power electronic components. It is connected to the reader (mounted inside the pump housing) via a special petroleum resistant cable.

An optional panel reader (with or without pinpad for odometer entry if required) can be mounted on the pump itself for driver identification purposes. It can also be used to authorise fuel deliveries if the additional security offered by the vehicle mounted tag is not required.



# System Component

Controller



The System Controller stores information on all authorised vehicles and their respective owners as well as the fuelling requirements for each vehicle.

This information is continually updated and shared between all devices on the network using the cellular network.



# System Component

Controller

The Site Controller checks the data obtained from the tag against available information on that particular vehicle to determine if fuelling is permitted. In the case where the vehicle is not authorised for fuelling or if it has been reported stolen or missing, a suitable alert can be raised.

This system enables vehicles to be fuelled even if communication with the Head Office system is temporarily unavailable by keeping a local copy of the database, but will be updated as soon as communications is restored. Sales and other events are transferred to Head Office for reporting and analysis.



# System Component

Photos



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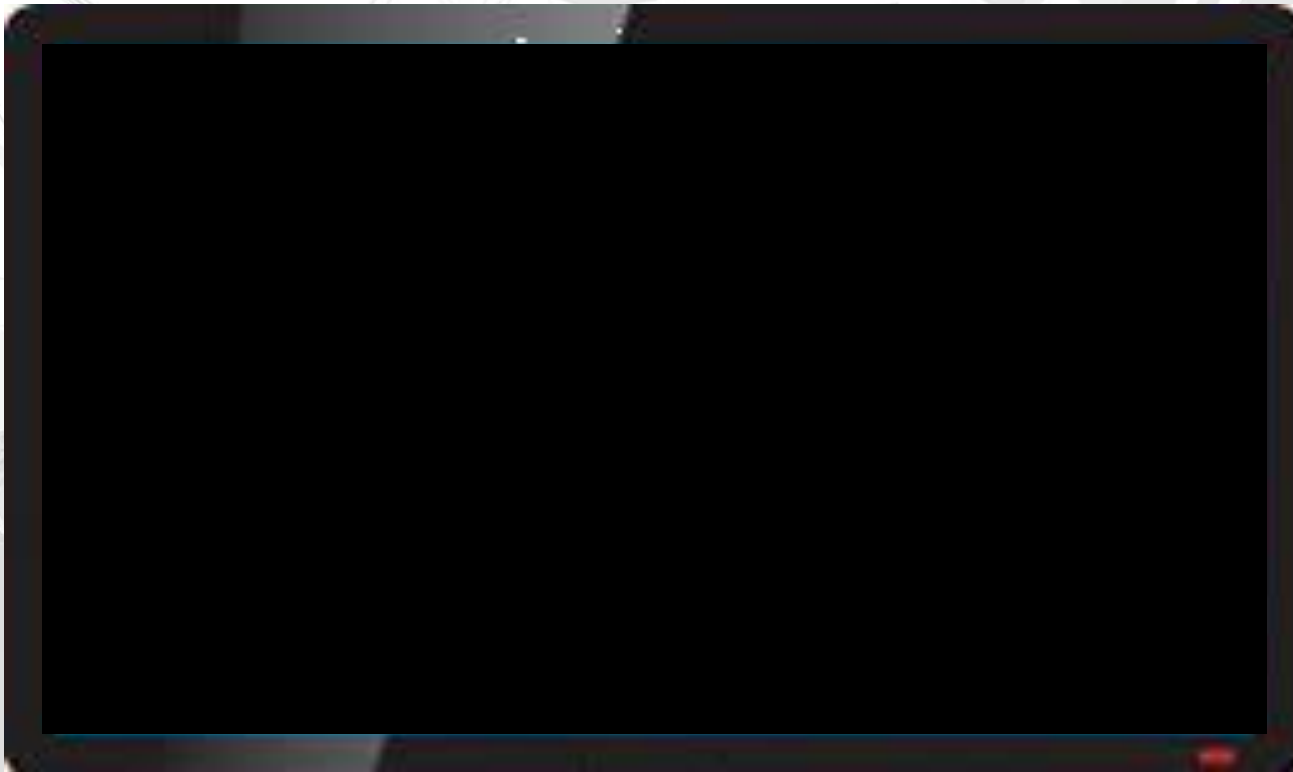
# System Component

Head Office

RECARD:GULFT 03/09/2013 [NT] Logoff					
Terminal Activity Report - [DATE]					
KCT:10002 m	03/07/2013 21:15:35	Exception			! Site-MOB 160 MF Status: Fault 'C'
KCT:10002 m	03/07/2013 21:16:13	Exception			! Site-MOB 160 MF Status: Fault 'C'
KCT:10002 m	03/07/2013 21:16:43	Exception			! Site-MOB 160 MF Status: Fault 'CH'
KCT:10002 m	03/07/2013 21:16:43	Exception			! Site-MOB 160 MF Status: Fault 'C'
KCT:10002 m	03/07/2013 21:16:44	Exception			! Site-MOB 160 MF Status: Fault 'C'
KCT:10002 m	03/07/2013 21:17:22	Exception			! Site-MOB 160 MF Status: Fault 'C'
KCT:10002 m	03/07/2013 21:17:43	Sale	Vehicle	RTG KC02 Diesel 102.00	
KCT:10002 m	03/07/2013 21:17:53	Exception			! Site-MOB 160 MF Status: Fault 'C'
KCT:10002 m	03/07/2013 21:18:31	Exception			! Site-MOB 160 MF Status: Fault 'C'

The Head Office System comprises a number of different applications that control the overall operation. These applications are responsible for the tag information database & authorisation process as well as the production of various management reports for sales, vehicle usage, GPS mapping of events etc. Exports to third party systems are supported.

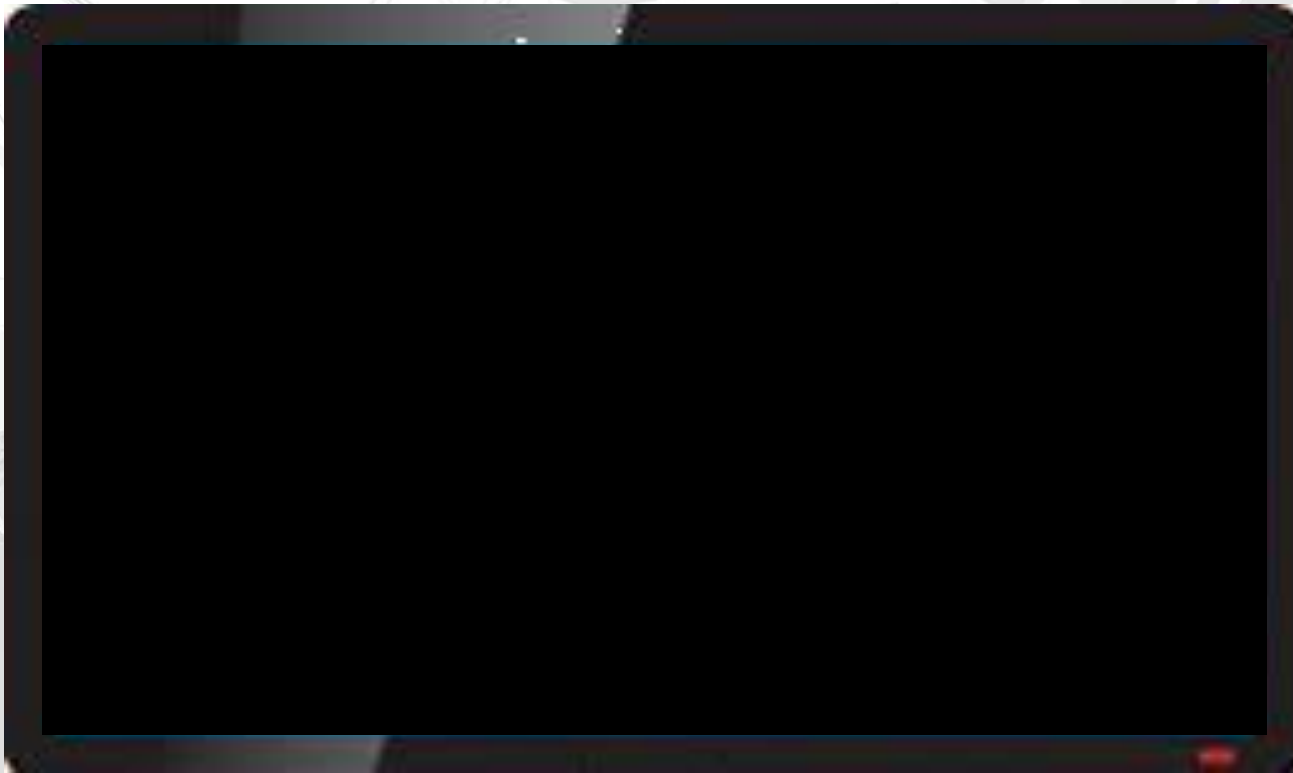
# MobiFill Site View – Container Terminal



- Gantry Cranes
- Generators
- Loaders
- Prime Movers
- Stackers
- Others

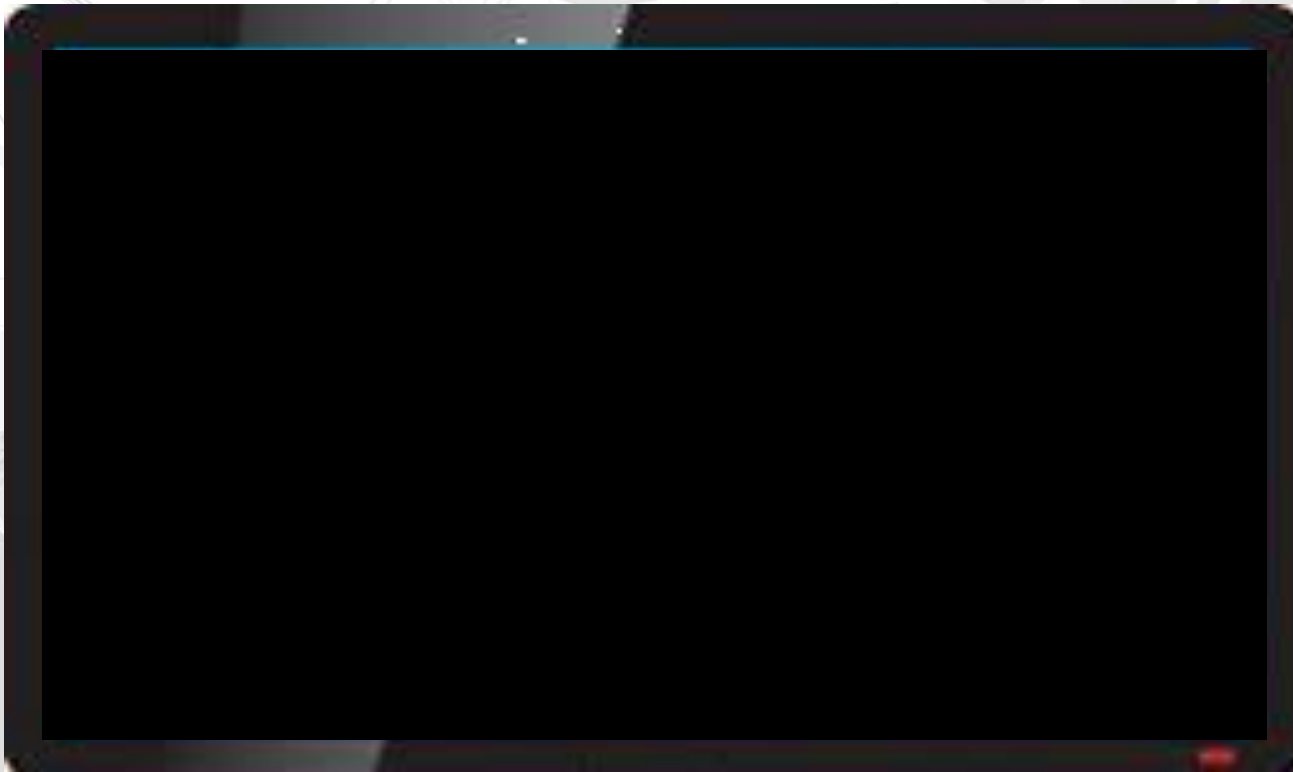


# FastFill & MobiFill Site View – Army Base



- Assaults
- Carriers
- Launchers
- Tanks
- Trucks
- Others

# MobiFill Site View – Construction Site



- Cranes
- Crawlers
- Excavators
- Generators
- Light Towers
- Others

# Brief Process



Stationary



Arrive Site



GPS + Verify



Leave Site



Secure Web



Crawlers



Read Tag



Start Fuelling



Transmit



Real-time



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# Brief Process



Work Site



Supervisor



Fuelling Info



Easy Access



Manager



Efficient



Access Server



Reports



Anywhere



Devices








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# Benefit of MobiFill – To Fleet Manager & Owner

- ✔ Ensures fuel actually pumped into correct machine
- 🔍 Better monitoring of fleet fuel consumption
- 👍 Improved data collection
- ⚙️ Reduced errors due to minimised human intervention
- 📱 Elimination of plastic cards or paper coupons

# Benefit of MobiFill – To Fleet Manager & Owner






-  Minimisation of fuelling to non-authorized vehicles
-  Elimination of stolen cards problem
-  Reduced disputes on unauthorized fuel transactions
-  Reduction of manpower requirements
-  24x7 operation

# Benefit of MobiFill – To Fleet Manager & Owner

-  Auditable “Super tags” allow filling of un-tagged vehicles
-  Full auditing of every litre of fuel dispensed
-  Online GPS tracking of vehicles and events
-  Allows vehicle performance analysis
-  **EVERY LITRE PUMPED IS AUTOMATICALLY RECORDED TO AN AUTHORISED TAG OR SUPER TAG**

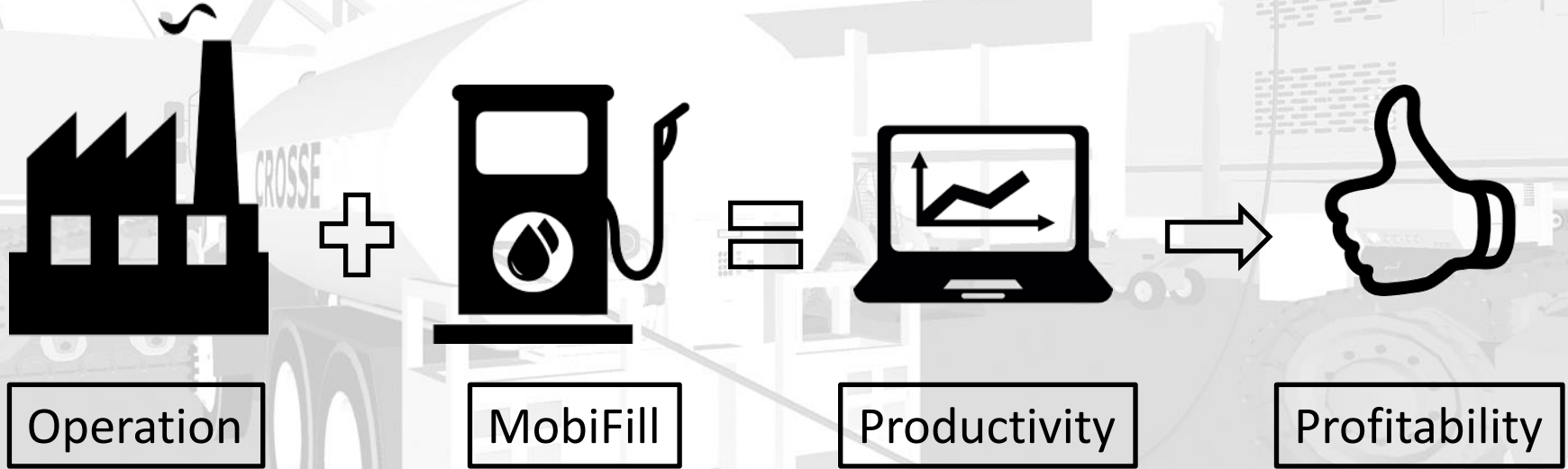
# Benefit of MobiFill – To Driver & Operator

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-  Reduced process time
-  Elimination of paperwork and logbooks
-  Elimination of signed chits or plastic cards
-  No disputes over fuel allowances
-  Automatic vehicle/machine identification



# Benefit of MobiFill – To Business Owner



# Crossecom (Australia) Pty Ltd

*Over 25 years of Retail Fuel Industry Experience*

**Clients to have used Crossecom systems since 1984 include:**

Bechtel (Malaysia)  
Singapore Petroleum Corporation  
Shell (Singapore)  
BP (Singapore and Malaysia)  
BH Petrol (Malaysia)  
Hindustan Petroleum Corporation (India)  
ESSO (Australia, Singapore and Malaysia)

Emarates Petroleum (Dubai)  
Kuwait National Petroleum Corporation  
JomoGAS (Jordan)  
Conoco (Malaysia)  
Duty Free Stores (Okinawa)  
Public Bank Berhad (Malaysia)  
American Express (Malaysia)

**Our products and services include:**

Retail Automation - ISSAS  
Point of Sale Hardware and Software - TouchPOS, FuelPOS  
Protection of goods in storage and transit - CrossESEAL  
Radio Frequency Identification (RFID) - FastFILL Automated Fuelling System  
Latest;  
CheckFILL- Patented Technology for NGV/CNG Industry  
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## Thank You



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