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### INTRODUCTION

As a business owner, an accountant or fleet manager, you understand that fuel forms a major part of any fleet company's operating cost.

Monitoring costs effectively and claiming tax credit for your fuel usage and minimising wasted fuel or fuel loss can be a major part of reducing your operating cost. However, this generally becomes an overwhelming task, especially if you are managing a large back to base fleet with multiple vehicles and/or multiple sites, such as:



- Commercial transport
- Civil construction
- Mining



# REDUCE HUMAN ERROR

Fuel record keeping depends on the driver's motivation and commitment to recording accurate fuel usage and on the administrator's ability to effectively record fueling details that correspond to each vehicle without misreading or transposing numbers or miscounting figures. This is not just a problem for FMS but for any manual operation which needs to be accounted for and recorded. Even with the most organised filling system, receipts need to be generated and entered into a spreadsheet or accounting system. Each step increases the likelihood of human error. All these human interactions can accumulate errors and make it difficult to accurately account for and reconcile fuel records.

The solution is to create an automatic system. A well-designed system needs to physically prevent drivers from filling up unless they engage the system and then automatically record what they use. This will obviously be some type of smart system combined with a physical unit at the site.

A FMS can use various means to track the fuel consumption per vehicle. Initially it is important to identify each vehicle. There are several methods which may be utilised include requiring some type of code to be entered into the FMS through a keypad or perhaps it is easier to use a swipe card or key tag (e.g. RFID) before the fuel will start to pump. A key tag, attached to the keys of the vehicle is generally preferable as the vehicle cannot be driven without the keys and therefore the key tag.

Once the vehicle is identified and the physical system is enabled and fueling begins, a system needs to track the data. The most efficient and error free way of doing this is through a cloud based system. A cloud based system eliminates the need to have someone physically approach the base station units to download data. A cloud based system will automatically upload the data from wherever FMS is placed and ensures that reliable, up to date data is always available. A physical unit combined with an effective cloud based system will reduce or eliminate the human error associated with manual fuel logs and accounting operations.

## SAVE TIME

Paperwork! A manual FMS starts by reading the drivers writing, tracking down illegible or missing data by calling the driver, waiting for a call back, getting them to think of their cost sheet, remember what it was and why it all happened - what a nightmare! Yet this is always what needs to happen with a manual system. Not only does this lead to inaccurate data but it is at an enormous waste of time and money. Does anyone really enjoy doing this?

Time means money and if you have one or more people who spend half their week following up drivers for more accurate information on their fuel usage, you are spending a great deal of money on a rather mind numbing, time consuming yet necessary task.

There is a better way, an automatic smart system is the best solution.

Once the physical system is enabled at the pump, a software system will track the data. To save even more time, a cloud based system means you don't have to physically approach the units to download data. Near real time cloud based will be accessible to any authorised personnel with internet access and a web browser.

Consider the cost of one person manually tracking fuel costs over two days per week. An automated FMS could reduce this cost to near zero.



## ACCURATE REPORTING

Reports aren't written for the sake of writing them. Reports are generated in order to provide you with vital management information. They are only valuable when they are accurate and timely.

When are your reports due? Do you have accurate fuel usage information available for these reports? If you have a manual system the answer is generally no. By the time the information has been transposed, followed up on the missing or incomplete (illegible) information and then finally reconciled because the original numbers did not add up, you are generally getting your fuel information two to four weeks after the reporting period. What if there was a fuel overrun at one location? Is it too late to do something about it weeks after it has happened? How much money has been lost in the process?

A cloud based FMS with automatic uploads from FMS units is the best way to solve this problem. Reports are always up to date and available. Some systems will even provide you with alerts if your fuel usage varies by too much, allowing you to get on top of and resolve problems quickly.



# CLAIM ALL YOUR REBATES

#### REMEMBER THIS...

It is not so much about saving cost on fuel, or being accurate for accuracy's sake but claiming for tax. If you miss out on claiming 2,000 litres of diesel a week, that's 8,000 a month and 104,000 per year. At 0.41 cents per litre that's over \$40,000 per year you are missing out on. This would pay for four fuel management systems in the first year alone! Over ten years that's over \$400,000 or one new Ferrari Spider series.



### REDUCE INFORMATION OVERLOAD

Managing fuel can become an immense pressure for any accountant or fleet manager. As a manager you are faced with loads of information, reports and receipts daily. You get overloaded with data and have to organise and present it in a digestible format. This analysed information then gets passed along to others in the organisation to run an efficient, profitable business. This requires a lot of data manipulation to get the right information into the right hands in a format they understand.

The remedy of course is an effective, smart reporting system which enables personnel to access key information quickly and easily. Setting specific key performance indicators (KPI's) and then monitoring those KPI's becomes a major task for any FMS to achieve.

One of the issues that is always faced by a FMS is how to analyse and present information in an effective reporting method. The challenge is that every user requires different information presented in a slightly different way. Since you cannot escape these requirements, the solution is to create software which allows the information to be presented in easy to customise format. Additionally, all reports must access their data from a common source so that everyone is on the same page. This is where the benefit of effectively written cloud based software solution is important.

Taking software designed for a PC and simply putting that in the cloud does not work effectively as the need still exists to create custom reports for different user from the same data. Through using a system designed within the cloud (web 2.0) environment the same data source is available to all users and consistent information is presented to all levels of the organisation.

# REDUCE FUEL LOSSES

Pilfering fuel at the pump by employees, contractors and others is a concerning issue at some sites. Where it is easy to just drive a vehicle up to a pump and pump fuel it is also easy for fuel to be pilfered. Fuel theft and unauthorised fuel use could be hurting your business more than you realise. You invest a lot of trust in your employees and site visitors, though unfortunately some of them may not reward that trust with responsible behaviour. If someone is motivated enough to steal fuel then they will likely find a way to do it but you can at least make it more difficult for them and ensure that you can track where and when it is happening.

There are a range of measures you can take to minimise fuel pilfering provided by a FMS. This includes:

- Tracking every vehicle and every driver, so you know how much fuel is used and when
- Restricting access to fuel by driver PIN, keys (RFID tags) (or a combination)
- Restricting access to fuel at preselected times such as 9am to 5pm
- Restricting fuel by days such as weekdays only
- Restricting fuel amounts such as a maximum of 200 litres per fill up or 2000 litres a day
- Limiting the type of fuel available based upon the vehicle being fueled

A good FMS not only tracks how much fuel has been taken, by whom, when and what type but controls who, when and where fuel may be accessed.



# ELIMINATE FUELING ERRORS

Even the best employees make mistakes. It is not unheard of for diesel to be dispensed into a gasoline vehicle or vice versa. With a smart fueling system the system will know from the vehicle ID what the proper fuel is for that vehicle. The system will only enable the proper pump for that vehicle eliminating costly fueling errors and equipment downtime.



# MANAGE FUEL DELIVERIES

If you are making deliveries or scheduling your own deliveries you need to know:

- When a fuel delivery is required
- How much fuel is needed
- The type of fuel to be delivered

By equipping your tank with a fuel level monitoring system and connecting it to the FMS you are able to monitor your fuel inventories without doing manual dips. A smart system will allow you to automatically perform a tank dip and send an alert to notify you when deliveries are required. A smart system will also notify you of any unusual change in a tank level that may indicate a tank failure or unauthorised access.



## INCREASED EFFICIENCY

A robust FMS will increase the efficiency of your entire operation by:

- Minimising initial information errors
- Identifying errors or problems if they occur to allow for timely remediation
- Providing accurate and timely management information across the entire organisation
- Reducing manpower required to acquire fuel management data
- Scheduling fuel deliveries only when and where needed



### CONCLUSION

# SMARTFILL GEN 2

#### WHY SMARTFILL GEN 2?

A good example of a FMS that incorporates all the best practices is the SmartFill Gen 2. This cloud based technology provides:

- Automated fuel records- eliminates human error associated with hand written log sheets. This is critical in industries where extensive amounts of fuel are used by multiple team members, such as in trucking, civil construction, mining and municipalities
- Usage tracking- you can gather detailed information about fueling and vehicle performance and status
- Fuel accounting- reconciliation and fuel reporting
- Tax accounting- very quick and streamlined process with easily accessible fuel management reports
- Management reports- enables you to determine month end profit and helps to minimise loses. You can also act on issues quicker, for example, when there is a cost blow out, rather than trying to resolve the issue after the cost blowout occurred
- Eliminate fuelling errors- automatically selects the proper fuel
- Manage inventory- know when and where to schedule deliveries
- Optimise fuelling fleet deployment- route your delivery vehicles for maximum efficiency

Fluid Management Technology's SmartFill GEN 2 will make your operations easier to account for fuel use and reliable data is always available online.





### HOW TO GET STARTED

If you are interested in streamlining your fuel management process with the SmartFill Gen 2 system, contact Fluid Management Technology for more details.

