

Greenlane Solutions, Trial at Padern Cars, Aberystwyth

Introduction

Padern Cars is a 10 vehicle taxi family run business based in Aberystwyth. Their customers are a mix of local people and national businesses (Orange Mobile) including a significant contract with the NHS and local schools.

Their fleet consists of modern Ford Galaxys, Vauxhall Astras with some Ford Connect vans which were selected as being economical and reliable vehicles whilst fulfilling their taxi role.

They are on call 24 hours a day for the NHS contract and so vehicle availability is an important issue.

Business Issues

The rising cost of fuel is affecting every business in Wales but when the whole business is about travel it becomes of paramount importance in the same way a delivery or Haulage Company would be affected.

A secondary cause of fuel use is driving style. It's true to say that no driver likes to have their competency criticised and so any proposed changes have to be introduced in a sensitive but effective manner. The objective would be to achieve a long term and permanent change in driving style.

Options

Padern Cars asked a local expert business to advise them in their research for a solution. Sam Browne of Plant-i suggested as a first step that they may consider vehicle tracking. This would enable the business to monitor the use of vehicles, distance travelled, engine idle and speeds. As Plant-i were able to demonstrate that their existing customers had achieved worthwhile cost saving in terms of fuel used and in addition had been able to do more work with the same vehicles thus achieving a double benefit to the profitability of the business.

Sam Browne also suggested that the business would see further major benefits in fuel saving, carbon reduction and maintenance costs with the installation of "Greenlane Fuelsaver" technology.

Greenlane Fuelsaver reprogrammed the vehicle's engine management to shift the power curve and encourage a different driving style. This style is more relaxed resulting lower speeds, less wear and tear on the vehicles and up to 20% reduction in accidents. (From a recent customer case study)

Results

Padern Cars decided to start with the vehicle tracking as they understood that it would give them a significant business advantage in knowing where their vehicles were in real time. This gave better customer service and they have been able to measure an increase in the utilisation of the vehicles and their earnings. Through close management of the vehicles and controlling engine idle times and vehicle speeds the business also saw a 7% reduction in their monthly fuel bills.

After this success Padern Cars were confident in the advice given by Sam Browne and so went ahead with the installation of “Greenlane Fuelsaver” in a Ford Galaxy diesel. The installation was carried out by Sam Browne and as this was the first of Padarns vehicles to be modified, Plant i used the services of a Rolling Road to measure and record the ‘before’ and ‘after’ emissions and consumption of the vehicle.



RESULTS OF ROLLING ROAD TESTING (SUMMARY)	Fuel Consumption	CO Output	CO2 Output	NoX Output
Before installation of “Greenlane Fuelsaver”	31.8 mpg	0.18	11.7	146
After installation of “Greenlane Fuelsaver”	35.3 mpg	0.12	10.9	129
Average Reduction	11.1%	36%	9%	16%
Combined Fuelsaver/Tracking saving	18.1%			

Conclusion

As can be seen from the above table of results there is a significant reduction in all polluting emissions from the vehicle and a major saving in fuel used of over 11%. Added to the 7% already saved using the tracking system this totals nearly 20% reduction in direct costs to the business.

The Return on Investment (ROI) for Padarn Cars in less than 1 month.

This is regardless of the drivers quality of driving as it does not allow the driver to drive inefficiently. In the case of Padarn they already had well trained drivers who drive efficiently; a company who has less well trained drivers would see greater reductions in Fuel and emissions. Plant I would also offer as part of the Greenlane Fuelsaver solution driver training where needed. This was not needed in this case.



John Jones, the business owner says of this achievement

“As a business we always invest in new technology and strive to keep ahead of our competitors. Greenlane Fuelsaver and Plant i Ltd have given us a solution resulting in a major competitive advantage and helping to secure of future whilst helping us reduce our CO2 emissions, we will use this in our company environmental policy and include this in future tendering.”



**Greenlane Fuelsaver – Gas Emissions Test Cycle
CV58 SPX PADARN GALAXY 2.0 TDCi**

Test		%CO	%CO2	%O2	Nox
Test 1 Vehicle @ Idle 4 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.16	3.8	18.45	144
	FUELSAVER SETTINGS	0.08	2	16.5	102
	Percentage change	50%	47%	11%	29%
Test 2 Gear 1 Speed 10 MPH 2 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.24	5.1	14.6	52
	FUELSAVER SETTINGS	0.13	5	14.7	43
	Percentage change	46%	2%	-1%	17%
Test 3 Gear 2 Speed 20 MPH 2 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.18	6.6	12.7	30
	FUELSAVER SETTINGS	0.11	6.5	13	27
	Percentage change	39%	2%	-2%	10%
Test 4 Gear 3 Speed 30 MPH 2 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.17	8.2	10.5	27
	FUELSAVER SETTINGS	0.13	8	10.7	25
	Percentage change	24%	2%	-2%	7%
Test 5 Gear 4 Speed 45 MPH 2 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.17	10.1	7.7	55
	FUELSAVER SETTINGS	0.14	9.9	7.8	47
	Percentage change	18%	2%	-1%	15%
Test 6 Top Gear Speed 56 MPH 2 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.18	11.7	6.3	146
	FUELSAVER SETTINGS	0.12	10.9	5.1	129
	Percentage change	33%	7%	19%	12%
Test 7 Top Gear Speed 70 MPH 2 Minutes					
	ORIGINAL VEHICLE SETTINGS	0.18	10.7	7.1	196
	FUELSAVER SETTINGS	0.1	10.5	6.6	155
	Percentage change	44%	2%	7%	21%
Overall Averages		36%	9%	4%	16%