

experts in sustainable energy

Summer 2020 energyinsight



The UK electric vehicle market is growing rapidly, and by 2035 there will be no new petrol or diesel cars. Are you ready to meet the demand for fast, convenient and profitable charging?

At EnergyForce, we are experts in sustainable energy solutions, helping Service Stations increase profit margins, attract new customers and leapfrog the competition with the latest in electric vehicle (EV) charging and monitoring.

Our EV Enablement Plan takes customers from initial feasibility and exploring the latest options available, through to obtaining grid connections, installation, maintenance and marketing promotion.

With so many EV charging options available, it's important to be platform independent. That way, we only recommend solutions that are right for your Service Station. Whether you're looking for Rapid or Ultra Rapid charging, rapid App payments, the latest in digital advertising and pricing options, or ways to grow your Service Station, our feasibility study will show you how.

What's more, our additional expertise in Solar PV and Battery Storage also gives customers the option of generating and storing their own cheaper electricity, ideal for combatting rising energy costs.

Find out how can you grow your Service Station and reduce costs with our free site survey.

Simply call 01964 508094 or email us at info@energyforce.uk to book an appointment.



New electric vehicle (EV) charging solution for Volvo in York

When you consider the growth in dealerships selling Electric Vehicles, the rising demand for EV charging is no surprise.

Will you be one of the first in your area to capitalise upon this ?

EnergyForce were delighted to be chosen by Volvo York for the design and installation of a new electric vehicle charging solution.

Designed to support the new XC40, this innovative solution features 8 charging stations, with a total capacity of 154kw, offering the flexibility of 22kw and 11kw charging.

Read more about EV charging overleaf...

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www.energyforce.uk



EnergyForce offers all 3 of the main types of charging; fast, rapid and ultra rapid. Rapid charging ranges from 50KW upto 350KW giving customers the ability to charge their vehicles in under 15 minutes.



Most Service Stations need only consider Rapid or Ultra Rapid Charging:

Customers charge their cars more guickly. For example a 20 to 30 minute rapid charge could let a customer travel between 60 and 200 miles

- The Service Station gets a quick throughput of customers
- Customers are more attracted to faster charging facilities
- Both options are capable of handling the majority of electric vehicles available today

Payback Scenarios

Our EV Enablement Plan guides you through the process of choosing the right charging solution for you.

Whilst we expect most Service Stations to choose Rapid or Ultra Rapid Charging, there are still multiple options available to improve flexibility and long term payback.

EnergyForce can help you calculate payback based upon estimated usage. These are typically spread over 10 years or less (a typical guarantee period for EV chargers).

Figure 1 illustrates possible payback options, ranging from 1 to 6 years based upon 20 minute individual usage, a charge rate of £0.30 p/kwh and an energy cost of £0.12p/kwh.

Why not increase your profit margins and talk to us about reducing your electricity cost to £0.04 p/kwh when generated from solar energy.



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cars



EnergyForce offers the full range of Electric Vehicle (EV) charging options, from a wide range of manufacturers. In addition, we also offer a range of monitoring systems, allowing you and EnergyForce to track performance.

Although there are other criteria to consider when looking at charging units, you typically have 2 main options (we have excluded Fast Chargers here as they won't deliver the turnaround you need):

Rapid Charging



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Suitable for most current applications, Rapid chargers typically offer up to 50 kW DC

This means that a typical electric vehicle can charge in 30 minutes, and gets a range of c 90 miles. Ideal for urban or rural commuters, and the fast throughput that you might be looking for.

Increasingly the workhorse of charging stations, they provide higher power and flexibility than typical home chargers, with a maximum charging time of c 1 to 2 hours.

This solution is ideal for smaller service stations or service stations who would like to add EV charging to their service offering.

Putting you in control

When you invest in electric vehicle charging with EnergyForce, you're also gaining access to a hugely powerful suite of software solutions to grow your Service Station, putting you completely in control.

Not only does our App put your Service Station on the map for customers to find, but it gives you a huge range of additional tools and the power:

- Manage your profit margins, with complete control over pricing by customer type, loyalty, time of day or duration of charge
- Give customers the option of in-App payments from their phone
- Data insight into your customers. Who they are, when they charge and for how long

What's more, our latest generation of chargers also gives you the flexibility to:

- Balance loads between chargers so you can manage demand at peak times
- Create visual advertising options to boost revenue or in-store promotions



Ultra Rapid Charging

Designed for both the current and next generation of electric vehicles, these units offer up to 350KW DC charging.

Technical issues aside, for Service Stations near to busy routes, this transforms your ability to attract customers, and obtain a rapid turnaround. A typical charge might take less than 15 minutes, but give a range of 300 miles.

This solution is ideal for the larger busier service stations where fast turnaround is desired.





The Future of Electric Vehicles in the UK

Electric Vehicles are here to stay, and the market for them is growing rapidly, especially when you consider that by 2035, there will be no new diesel or petrol cars in the UK.

However, don't be fooled into thinking that seems a long time away.

Just think of your village, town or region. Who will be charging the vehicles of today and tomorrow. Will it be you?

In 2020 alone there were over 315,200 electric vehicles cars in the UK, plus 10,200 vans and 32,390 charging points*. By 2022, Deloitte believe we will start to see a tipping point in pricing between electric vehicles and combustion engines which will stimulate this growth even further. ***

This growth is hardly surprising when you consider that by the end of 2020, there will be c 175 ${\rm EV}$

vehicle models available in Europe alone.***

These figures are set to grow further by 2025, with an increase to 1 million electric vehicles in the UK.**

Fast forward to the UK in 2040, and we're looking at a forecasted 11 million electric vehicles with an estimated £150 billion of opportunities.**

*NextGreenCar.com

**https://www.accenture.com/gb-en/company-news-release-electric-vehicles-hit-uk-2040

*** https://www.theguardian.com/environment/2019/dec/25/2020-setto-be-year-of-the-electric-car-say-industry-analysts

Rising Energy Costs

In the short to medium term, the increasing use of Electric Vehicles is going to have an impact upon your energy usage and charging facilities. With annual energy costs set to rise by between 4-8%*, it's important that you consider several things:

- The number and type of charging units you need
- Whether you want remote monitoring to balance power loads, and check usage
- The energy you are able to draw from your grid connection
- You might invest in Solar PV, and generate your own cheaper electricity**`

As part of our EV Enablement Plan, EnergyForce can help you with the initial feasibility study, all the way through to design, build and monitoring.

* Source: OFGEM 2019 ** up to 46% cheaper (Levelised Cost of Energy LCoE)

Solar PV & Battery Storage

Battery Storage is a fast moving industry, offering many new opportunities when connected with Solar PV:

- Store your excess renewable energy, using it at peak times to reduce your reliance on expensive power from the grid
- Generate income by selling your excess energy back to the grid
- Reduce the need for grid connection upgrades, using battery technology to balance the demand. Perfect where your rising energy demand surpasses your connection facility
- Use Solar PV and Battery Storage as part of your carbon reduction strategy

EnergyForce can guide you through the maze of options available, helping you to create a future proof solution.

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A. Definitely. We can help you integrate digital advertising into your charging units, adjust charging by customer type and time of day, plus target new customers via our App.

Q. I have been told I do not have enough capacity and the cost of upgrades are unviable, what can I do?

A. This isn't always the case. We have extensive experience in negotiating and reducing low cost capacity upgrades. In addition, we might also be able to use dynamic load balancing, storage and additional generation solutions to deliver your project.

Q. Why EnergyForce?

A. We offer the complete end to end solution, from consultation, through to years of experience, a broad range of options, plus a proven track record of delivering high quality cost saving solutions. Our EV enablement process helps your business exploit this new market opportunity, keeping you up to date with industry announcements, training staff members and supporting your customers with home charging equipment.

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