



**Bryce Energy Services**  
Your Expert Energy Consultant



# Electric Vehicle Charging Calculator.

Hello John Smith,

This is your estimated output results for Electric Vehicle Charging as entered on Bryce Energy Services – Electric Charging Calculator.

Your Data Reference: [Our] Electric Chargers Calculation number 1

## The details of your new Electric Chargers

This section you entered the key details of the electric chargers, the rating, and the number you plan to install.

Number of Electric Chargers you plan to install.		kW rating of the Electric Chargers*	
<i>16 Chargers</i>		<i>22 kW (Each)</i>	
Note, if it is a dual charger configuration, then number should be 2.		Select the maximum power rating of the charger. 22kW likely new standard, 150 kW is Tesla, 350 kW for trucks and busses	
Cost of Electric Charger Hardware	Enter a £ correction value + or -	Total Charger Hardware Cost £	
<i>£ 35,200</i>	<i>£ 0</i>	<i>£ 35,200.00</i>	
Estimated at £100 per kW including fitting. Note excludes network upgrades which could add £1,000s to £10,000s	if you have a quote for the hardware or other upgrade works by DNO, enter the difference to the estimated value.		

## Your Business Existing Electricity Supply

Details on your electricity supply, details from a recent electricity bill. If not known, leave default values.

Annual Use in kWh	Supply Capacity in kVA	Day Rate £ per kWh	Night Rate £ per kWh
<i>300,000 kWh</i>	<i>100 kVA</i>	<i>£ 0.28</i>	<i>£ 0.14</i>
From your business electricity bill, ideally total kWh used for full year.	From your business electricity bill, located near your premises information or meter number box.	From your business electricity bill. It is assumed this £ rate applies between 6am and Midnight.	From your business electricity bill. It is assumed this rate applies between midnight and 6am.

## Electric Chargers - Time of Day Utilisation.

The % of time that you consider the Electric Chargers may be in use for the different time groups. Day time is (as the electricity rate)

from 6am to 12 midnight, 18 hours, Night-time is midnight to 6am, 6 hours. Currently, 50% use is considered a high utilisation.

Time of Day	% Time in Use	Hours, Weekday, Day.	kWh, Weekday, Day	£, Weekday, Day.
Weekday, Day time	<i>0.25 / 1</i>	<i>1,170 Hours</i>	<i>411,840 kWh</i>	<i>£ 115,315.20</i>
Weekday Night-time	<i>0.10 / 1</i>	<i>156 Hours</i>	<i>54,912 kWh</i>	<i>£ 7,687.68</i>
Weekend, Day time	<i>0.10 / 1</i>	<i>187 Hours</i>	<i>65,824 kWh</i>	<i>£ 18,430.72</i>
Weekend, Night-time	<i>0.10 / 1</i>	<i>62 Hours</i>	<i>21,824 kWh</i>	<i>£ 3,055.36</i>

## Electric Charging System - Totals

These are the total values for the described Electric Charging system.

Total Charging Hours	Total Charging kWh	Total Charging Cost £	Total Hardware Cost £
<i>1,575 Hours</i>	<i>554,400 kWh</i>	<i>£ 144,488.96</i>	<i>£ 35,200.00</i>
Current Supply Capacity	Additional Capacity for Charger	New Supply Capacity Required	% Maximum kV from Chargers
<i>100.00 kVA</i>	<i>422.40 kVA</i>	<i>522.40 kVA</i>	<i>1 / 1</i>

## Selling Price - Charging £ for Electric Charging System

This section describes the Selling Rates for Electric Charging, £ rates per kWh and or £ rates per Hour.

Hourly Parking Rate in £ per hour.	Selling Day Rate in £ per kWh	Selling Night Rate in £ per kWh
<i>£ 4.5</i>	<i>£ 0.45</i>	<i>£ 0.25</i>

## Selling Margin - Potential Payback on Electric Charging System

This section describes the margins and simple payback from the user entered cost and selling rates. You can charge for the electricity per kWh or for the time spent parked per hour, or both kWh and hourly.

### Selling Margin - By charging users for the time spent charging.

Payback Calculation for Hours spent charging, excluding kWh.

£ Hours, Weekday, Day time.	£ Hours, Weekday, Night-time.	£ Hours, Weekend, Day time.	£ Hours, Weekend, Night-time
<i>£ 5,265.00</i>	<i>£ 702.00</i>	<i>£ 841.50</i>	<i>£ 279.00</i>
Total Hardware Cost £	Annual Charging £ Cost	Annual Charging £ Selling	Simple Payback Period
<i>£ 35,200.00</i>	<i>£ 144,488.96</i>	<i>£ 7,087.50</i>	<i>-0.26 Years</i>

### Selling Margin - By charging users for the Electricity kWh.

Payback Calculation for kWh of electricity used while charging, excluding time spent charging.

£ Hours, Weekday, Day time.	£ Hours, Weekday, Night-time.	£ Hours, Weekend, Day time.	£ Hours, Weekend, Night-time
<i>£ 185,328.00</i>	<i>£ 13,728.00</i>	<i>£ 29,620.80</i>	<i>£ 5,456.00</i>
Total Hardware Cost £	Annual Charging £ Cost	Annual Charging £ Selling	Simple Payback Period
<i>£ 35,200.00</i>	<i>£ 144,488.96</i>	<i>£ 234,132.80</i>	<i>0.39 Years</i>

## Selling Margin - By charging users for the Time and Electricity kWh.

Payback Calculation for hours parked, and kWh of electricity used while charging.

£ Hours, Weekday, Day time.	£ Hours, Weekday, Night-time.	£ Hours, Weekend, Day time.	£ Hours, Weekend, Night-time
<i>£ 190,593.00</i>	<i>£ 14,430.00</i>	<i>£ 30,462.30</i>	<i>£ 5,735.00</i>
Total Hardware Cost £	Annual Charging £ Cost	Annual Charging £ Selling	Simple Payback Period
<i>£ 35,200.00</i>	<i>£ 144,488.96</i>	<i>£ 241,220.30</i>	<i>0.36 Years</i>

Note, payback should be a positive number, negative number indicates no payback on system.

## Greenhouse Gas Emissions are:

Based on UK Government Greenhouse Gas Conversion factors 2021..

For the business without the Chargers:		
Scope 2 Electricity Emissions	Scope 3 T&D Emissions	Total Carbon Emission
<i>63.70 tCO<sub>2</sub>e</i>	<i>5.64 tCO<sub>2</sub>e</i>	<i>69.34 tCO<sub>2</sub>e</i>
Additional Emissions with the Chargers		
Scope 2 Electricity Emissions	Scope 3 T&D Emissions	Total Carbon Emission
<i>117.72 tCO<sub>2</sub>e</i>	<i>10.42 tCO<sub>2</sub>e</i>	<i>128.14 tCO<sub>2</sub>e</i>
<b>Giving a total Net GHG Protocol emissions of: 197.48 tCO<sub>2</sub>e</b>		



**VAT Invoice.**

<b>To:</b>	<i>Large Business Ltd</i>	<b>From:</b>	Bryce Energy Services Ltd
<b>Address:</b>	<i>Newcastle Upon Tyne, NE1 1ER</i>	<b>Address:</b>	4 Victoria Mews, Newcastle Upon Tyne, NE2 1ER.
<b>Contact:</b>	<i>John Smith</i>	<b>Date:</b>	14/06/2022

Solar Panel Calculator

Your Reference Description	Item Cost:	VAT at 20%:	Total Paid:
<i>[Our] Electric Chargers Calculation number 1</i>	£25.00	£5.00	£30.00

The Terms and conditions of Bryce Energy Services Ltd service are Accepted.

Companies House UK Number: 12555454

VAT Number: GB 356 2286 87



NOTE: This calculator is an estimate of your solar panel system based on data provided, so we can accept no liability for its accuracy. Any comments you have or suggestions for items to include in our electric charging calculator please let us know.

For further information or help to further detail your electric vehicle charging requirements, and improve your business energy efficiency, and to create a plan for carbon neutrality, please contact us;

Email:	Telephone:	Website:
<a href="mailto:info@BryceEnergyServices.com">info@BryceEnergyServices.com</a>	0191 580 6543	<a href="http://www.BryceEnergyServices.com">http://www.BryceEnergyServices.com</a>

Regards,

**Bryce Energy Services.**

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