How to Electrify Your Life
Save Loads Of Money
and
Save The Planet

FINANCIAL BENEFITS & CO_2 EMISSIONS REDUCTION

Performance Report For Year 01/10/2019 – 30/09/2020

Solar Generation + 100% renewable grid imports

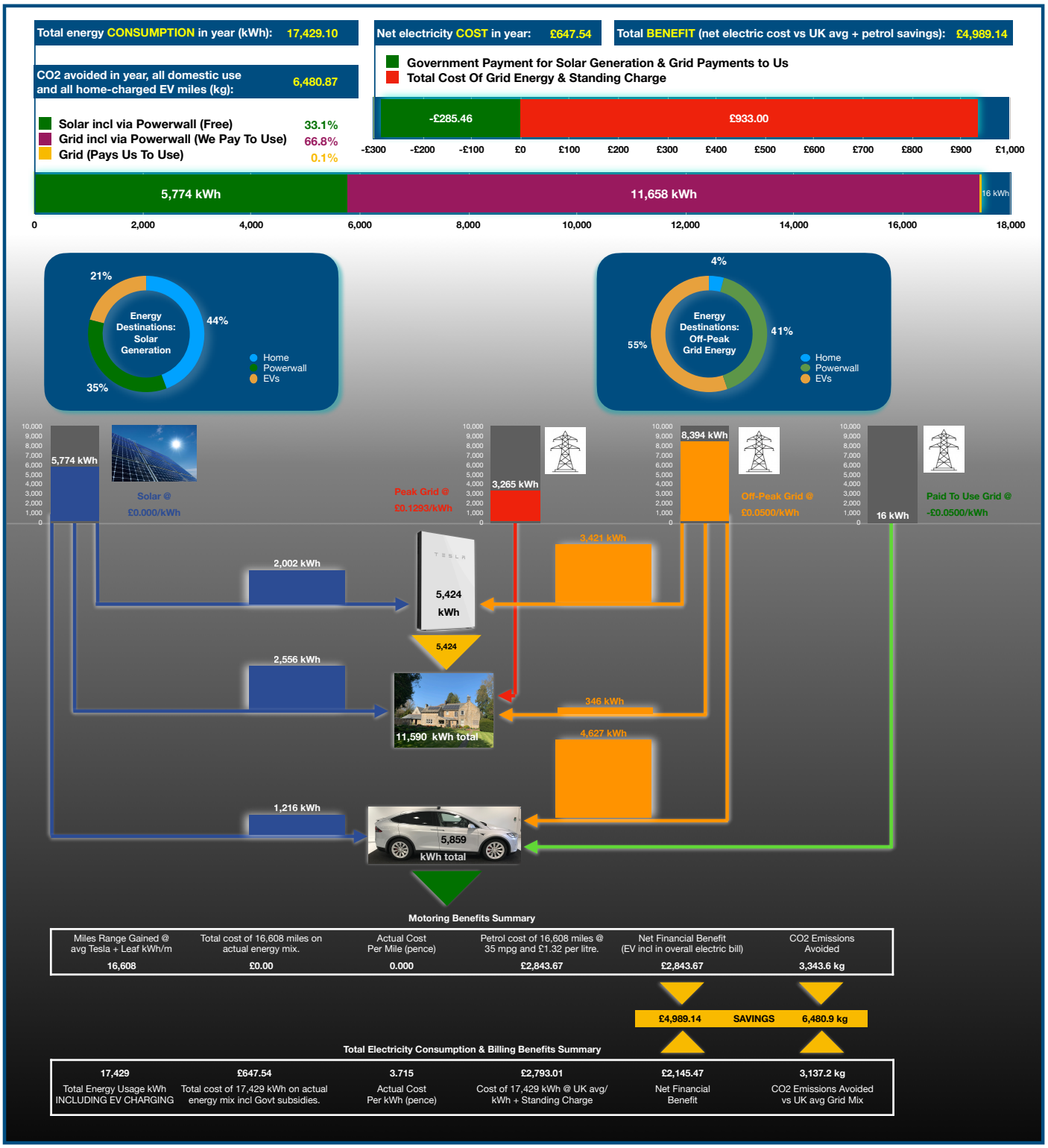
Tesla Powerwall domestic storage battery

Tesla Model X and Nissan Leaf electric vehicles

myenergi zappi smart electric vehicle charger

Performance Summary for Year: 01 October 2019 to 30 September 2020

Energy flows may not add to precisely 100% due to input rounding

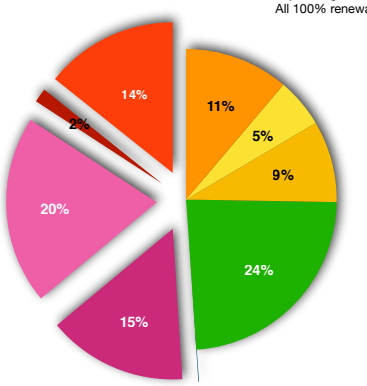


How To Electrify Your Life Performance Report: Annual Summary

Overall performance and benefits of our generation, storage and EV charging system: 01 October 2019 to 30 September 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	2,556.0
Solar energy generated and used for EV charging	1,216.1
Solar energy generated and used for Powerwall charging	2,002.2
Powerwall stored energy used during peak hours. Charged 2,002.2 kWh solar + 3,401.76 kWh off-peak grid.	5,404.0
Paid To Consume grid energy (100% renewable sourced)	15.8
Off-peak grid to charge Powerwall (100% renewable sourced)	3,421.3
Off-peak grid to charge EVs (100% renewable sourced)	4,626.9
Off-peak grid for any other use (100% renewable sourced)	345.6
Peak grid consumption for any use (100% renewable sourced)	3,264.7

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	3,421	63.1%	£171.06
Charge from solar	2,002	36.9%	£0.00
Total charge to Powerwall	**5,424**	**Cost Incurred**	**£171.06**
Powerwall discharge during peak hours	5,404	Cost Avoided	£698.74
Net benefit of Powerwall peak-shifting			**£527.67**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**17,429.1**
Total cost, grid electricity incl. standing charge & VAT	£933.00
Government payments for solar generation	-£282.63
Payments to consume (Demand Side Response)	-£2.83
Net total electricity bill, net of payments made to us	**£647.54**
Actual average net cost of kWh used (£647.54 ÷ 17,429.1)	£0.0372
UK average electricity cost per kWh	£0.1550
Cost of 17,429.1 kWh at UK avg cost incl. standing charge	£2,793.01
Total saving on 17,429.1 kWh vs UK average cost	**£2,145.47**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**17,429.1**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	3,137,238
kg CO_2 avoided by using 100% renewables versus UK average	**3,137.2**

MOTORING BENEFIT RESULTS (16,607.9 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**5,843.0**
Miles range gained from charging 5,843.0 kWh	16,607.9
Actual cost of all grid energy used (solar is £0)	£0.00
Fuel costs to drive a petrol/diesel car 16,607.9 miles	£2,843.67
Total saving on motor fuel versus petrol/diesel	**£2,843.67**
Total financial benefits in period	**£4,989.14**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this period's energy mix	**£0.0372**

Total EV miles fuelled with 100% renewable electricity	**16,607.9**
Kilometre equivalent	26,727.7
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	3,343,633
kg CO_2 avoided by using EVs charged with 100% renewables	**3,343.6**
Total kilograms CO_2 emissions avoided	**6,480.9**

Current Year detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	2,556.0	
Financial benefit of solar generation. (Purchase cost of 2,556.0 kWh peak grid electricity avoided.)		£330.49
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£282.63
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	5,404.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 5,404.0 kWh peak electricity avoided.)		£698.74
Energy charged to EV batteries using off-peak grid electricity.	4,626.9	
Cost which would have been incurred if 4,626.9 kWh of peak grid electricity had been used to charge EVs.		£598.26
Cost actually incurred to charge 4,626.9 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£583.12
Energy charged to EV batteries using energy from solar generation	1,216.1	
Financial benefit of charging EVs with solar-generated energy (cost of 1,216.1 kWh peak hours grid electricity avoided).		£157.24
Energy used during PAY TO CONSUME Demand Side Response period	15.8	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 15.8 kWh used during Demand Side Response Period.)		£0.79
Total direct energy-related financial benefits in year		**£2,052.22**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (79.0% of EV charging at home)	4,626.9		
Range gained by EVs with 4,626.9 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			12,746.3
Total gallons required to cover 12,746.3 miles at assumed internal combustion car average mpg			364.2
Litres equivalent of 364.2 gallons			1,653.4
Total cost of petrol/diesel fuel that would be payable to purchase 1,653.4 litres, at 1.32 per litre.		£2,182.46	
Off peak grid energy cost actually incurred to charge 4,626.9 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£2,167.31	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.3% of EV home charging)	15.8		
Range gained by EVs with 15.8 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			43.5
Total gallons required to cover 43.5 miles at assumed internal combustion car average mpg			1.2
Litres equivalent of 1.2 gallons			5.6
Total cost of petrol/diesel fuel that would be payable to purchase 5.6 litres, at 1.32 per litre.		£7.45	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 15.8 kWh into EVs.		-£0.79	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£8.24	
Total energy charged to EVs from solar: (20.8% of EV charging at home)	1,216.1		
Range gained by EVs with 1,216.1 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			3,350.1
Total gallons required to cover 3,350.1 miles at assumed internal combustion car average mpg			95.7
Litres equivalent of 95.7 gallons			434.6
Total cost of petrol/diesel fuel that would be payable to purchase 434.6 litres, at 1.32 per litre.		£573.61	
Cost of solar energy to charge 1,216.1 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£573.61	
Total motor fuel savings: 16,607.9 miles charged by a total of 5,858.8 kWh.		**£2,749.16**	
Mix: Solar 1,216.1 kWh; Off-peak grid 4,626.9 kWh; Paid To Use grid 15.8 kWh.			

Monthly Performance Report: October 2019

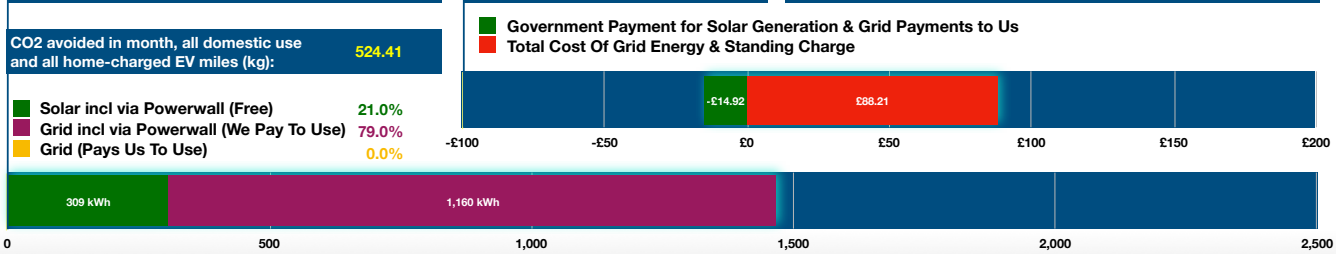
Energy flows may not add to precisely 100% due to input rounding

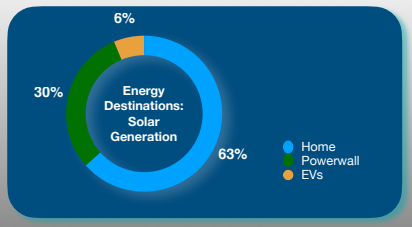
Total energy CONSUMPTION in month: 1,469.05

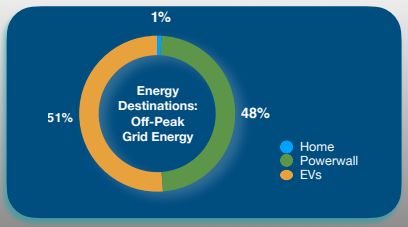
CO2 avoided in month, all domestic use and all home-charged EV miles (kg): 524.41

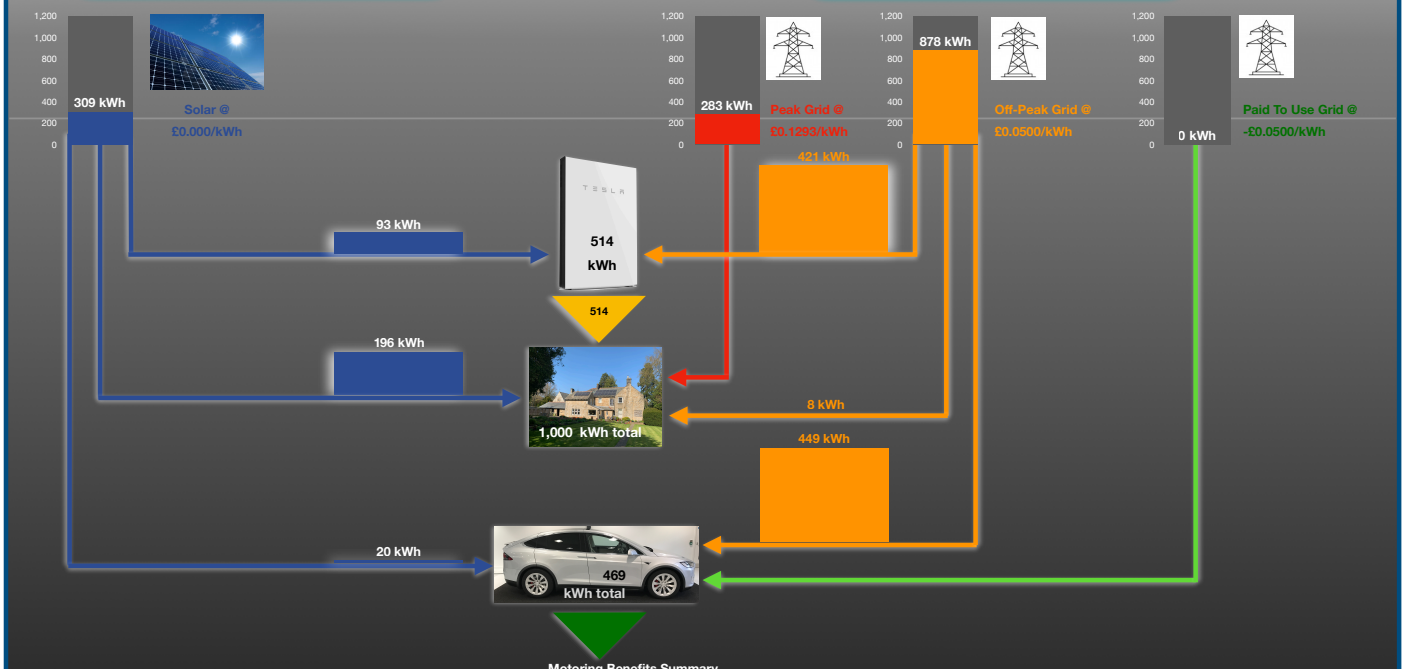
Net electricity COST in month: £73.29

Total BENEFIT (net electric cost vs UK avg + petrol savings): £375.51









Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 1,291 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 1,291 miles @ 35 mpg and 1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
1,291	£0.00	0.000	£221.10	£221.10	260.0 kg

£375.51 SAVINGS 524.4 kg

Total Electricity Consumption Benefits Summary

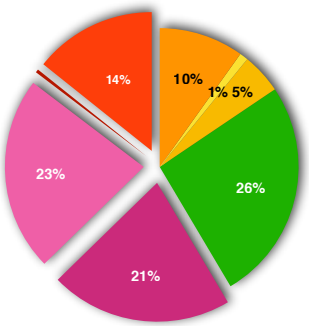
1,469	£73.29	4.989	£227.70	£154.41	264.4 kg
Total Energy Consumed kWh	Total cost of 1,469 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,469 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

February 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for October 2019.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	195.7
Solar energy generated and used for EV charging	19.6
Solar energy generated and used for Powerwall charging	93.3
Powerwall stored energy used during peak hours. Charged 93.3 kWh solar + 420.8 kWh off-peak grid.	514.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	420.8
Off-peak grid to charge EVs (100% renewable sourced)	449.2
Off-peak grid for any other use (100% renewable sourced)	7.6
Peak grid consumption for any use (100% renewable sourced)	282.9

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	420.8	81.9%	£21.04
Charge from solar	93.3	18.1%	£0.00
Total charge to Powerwall	**514.0**	**Cost Incurred**	**£21.04**
Powerwall discharge during peak hours	514.0	Cost Avoided	£66.46
Net benefit of Powerwall peak-shifting			**£45.42**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,469.0**
Total cost, grid electricity incl. standing charge & VAT	£88.21
Government payments for solar generation	-£14.92
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£73.29
Actual average cost of kWh used (£73.29÷1,469.0)	£0.0499
UK average electricity cost per kWh	£0.1550
Cost of 1,469.0 kWh at UK avg cost incl. standing charge	£235.45
Total saving on 1,469.0 kWh vs UK average cost	**£162.16**

MOTORING BENEFITS RESULTS (1,291.4 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**468.8**
Miles range gained from charging 468.8 kWh	1,291.4
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 1,291.4 miles	£221.10
Total saving on motor fuel versus petrol/diesel	**£221.10**
Total financial benefits in month	**£383.26**

Grid Energy Prices	
UK average grid price	£0.1550
Standing Charge per Day	£0.2500
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0499**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,469.0**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	264,429
kg CO_2 avoided by using 100% renewables versus UK average	**264.4**
Total EV miles fuelled with 100% renewable electricity	**1,291.4**
Kilometre equivalent	2,078.2
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	259,986
kg CO_2 avoided by using EVs charged with 100% renewables	**260.0**
Total kilograms CO_2 emissions avoided	**524.4**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	195.7	
Financial benefit of solar generation. (Purchase cost of 195.7 kWh peak grid electricity avoided.)		£25.31
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£14.92
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	514.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 514.0 kWh peak electricity avoided.)		£66.46
Energy charged to EV batteries using off-peak grid electricity.	449.2	
Cost which would have been incurred if 449.2 kWh of peak grid electricity had been used to charge EVs.		£58.08
Cost actually incurred to charge 449.2 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£42.94
Energy charged to EV batteries using energy from solar generation	19.6	
Financial benefit of charging EVs with solar-generated energy (cost of 19.6 kWh peak hours grid electricity avoided).		£2.53
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£152.15**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (95.8% of EV charging at home)	449.2		
Range gained by EVs with 449.2 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			1,237.4
Total gallons required to cover 1,237.4 miles at assumed internal combustion car average mpg			35.4
Litres equivalent of 35.4 gallons			160.5
Total cost of petrol/diesel fuel that would be payable to purchase 160.5 litres, at 1.32 per litre.		£211.87	
Off peak grid energy cost actually incurred to charge 449.2 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£196.73	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (4.2% of EV charging at home)	19.6		
Range gained by EVs with 19.6 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			53.9
Total gallons required to cover 53.9 miles at assumed internal combustion car average mpg			1.5
Litres equivalent of 1.5 gallons			7.0
Total cost of petrol/diesel fuel that would be payable to purchase 7.0 litres, at 1.32 per litre.		£9.23	
Cost of solar energy to charge 19.6 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£9.23	
Total motor fuel savings: 1,291.4 miles charged by a total of 468.8 kWh.		**£205.96**	
Mix: Solar 19.6 kWh; Off-peak grid 449.2 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: November 2019

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month: 1,831.56

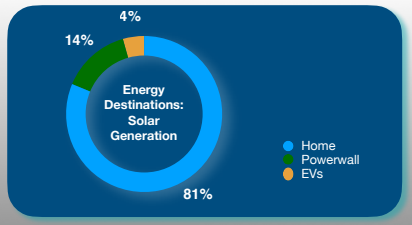
CO2 avoided in month, all domestic use and all home-charged EV miles (kg): 746.55

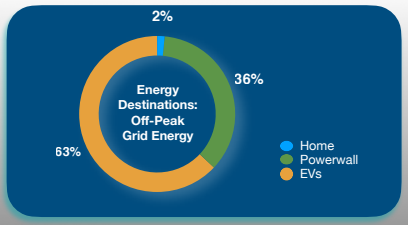
- Solar incl via Powerwall (Free) 6.0%
- Grid incl via Powerwall (We Pay To Use) 94.0%
- Grid (Pays Us To Use) 0.0%

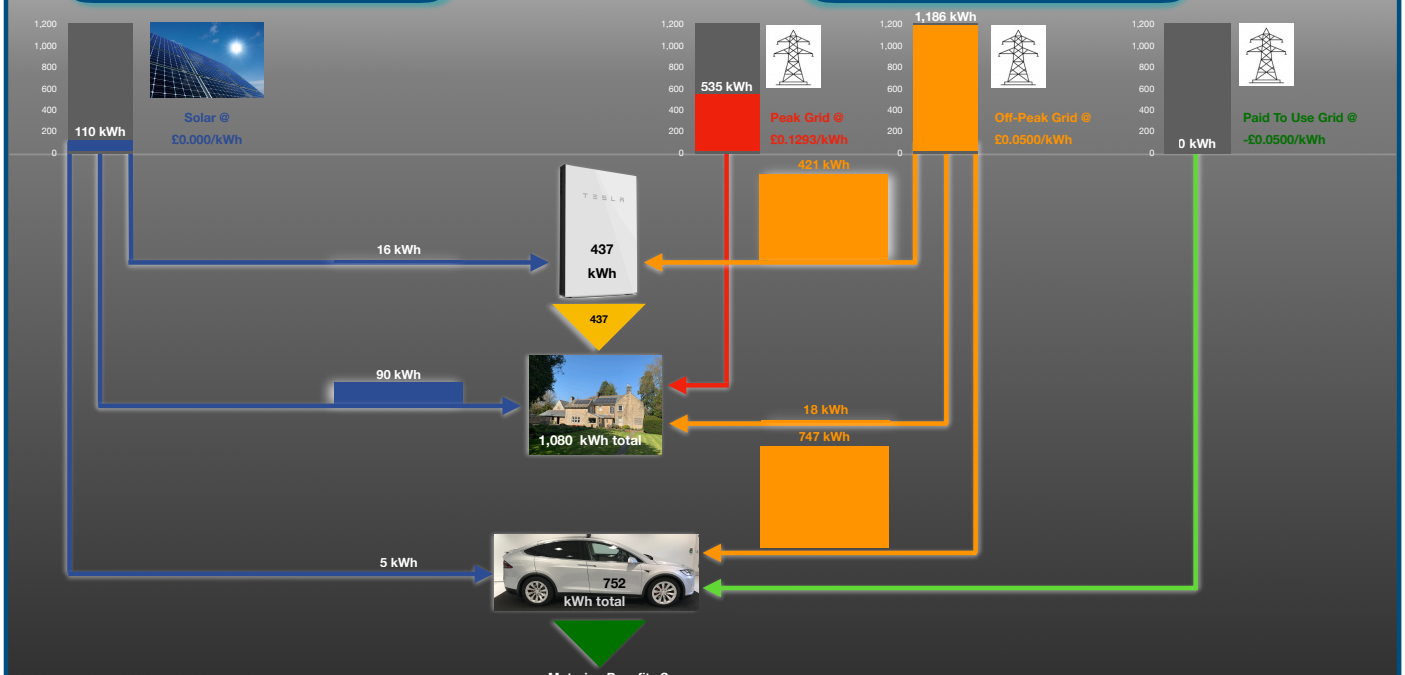
Net electricity COST in month: £130.41

Total BENEFIT (net electric cost vs UK avg + petrol savings): £508.01

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 2,071 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 2,071 miles @ 35 mpg and 1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
2,071	£0.00	0.000	£354.53	£354.53	416.9 kg

£508.01 SAVINGS 746.5 kg

Total Electricity Consumption Benefits Summary

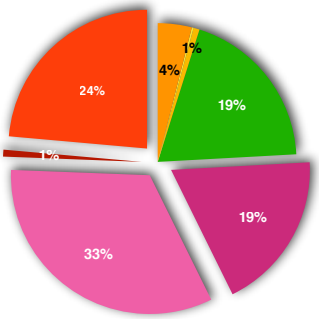
1,832	£130.41	7.120	£283.89	£153.48	329.7 kg
Total Energy Consumed kWh	Total cost of 1,832 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,832 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

February 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for November 2019.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	89.6
Solar energy generated and used for EV charging	4.9
Solar energy generated and used for Powerwall charging	15.8
Powerwall stored energy used during peak hours. Charged 15.8 kWh solar + 421.2 kWh off-peak grid.	437.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	421.2
Off-peak grid to charge EVs (100% renewable sourced)	746.8
Off-peak grid for any other use (100% renewable sourced)	18.1
Peak grid consumption for any use (100% renewable sourced)	535.2

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	421.2	96.4%	£21.06
Charge from solar	15.8	3.6%	£0.00
Total charge to Powerwall	**437.0**	**Cost Incurred**	**£21.06**
Powerwall discharge during peak hours	437.0	Cost Avoided	£56.50
Net benefit of Powerwall peak-shifting			**£35.44**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,831.6**
Total cost, grid electricity incl. standing charge & VAT	£136.00
Government payments for solar generation	-£5.59
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£130.41
Actual average cost of kWh used (£130.41÷1,831.6)	£0.0712
UK average electricity cost per kWh	£0.1550
Cost of 1,831.6 kWh at UK average cost	£291.39
Total saving on 1,831.6 kWh vs UK average cost	**£160.98**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,831.6**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	329,680
kg CO_2 avoided by using 100% renewables versus UK average	**329.7**

MOTORING BENEFITS RESULTS (2,070.6 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**751.6**
Miles range gained from charging 751.6 kWh	2,070.6
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 2,070.6 miles	£354.53
Total saving on motor fuel versus petrol/diesel	**£354.53**
Total financial benefits in month	**£515.51**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0712**

Total EV miles fuelled with 100% renewable electricity	**2,070.6**
Kilometre equivalent	3,332.3
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	416,869
kg CO_2 avoided by using EVs charged with 100% renewables	**416.9**
Total kilograms CO_2 emissions avoided	**746.5**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

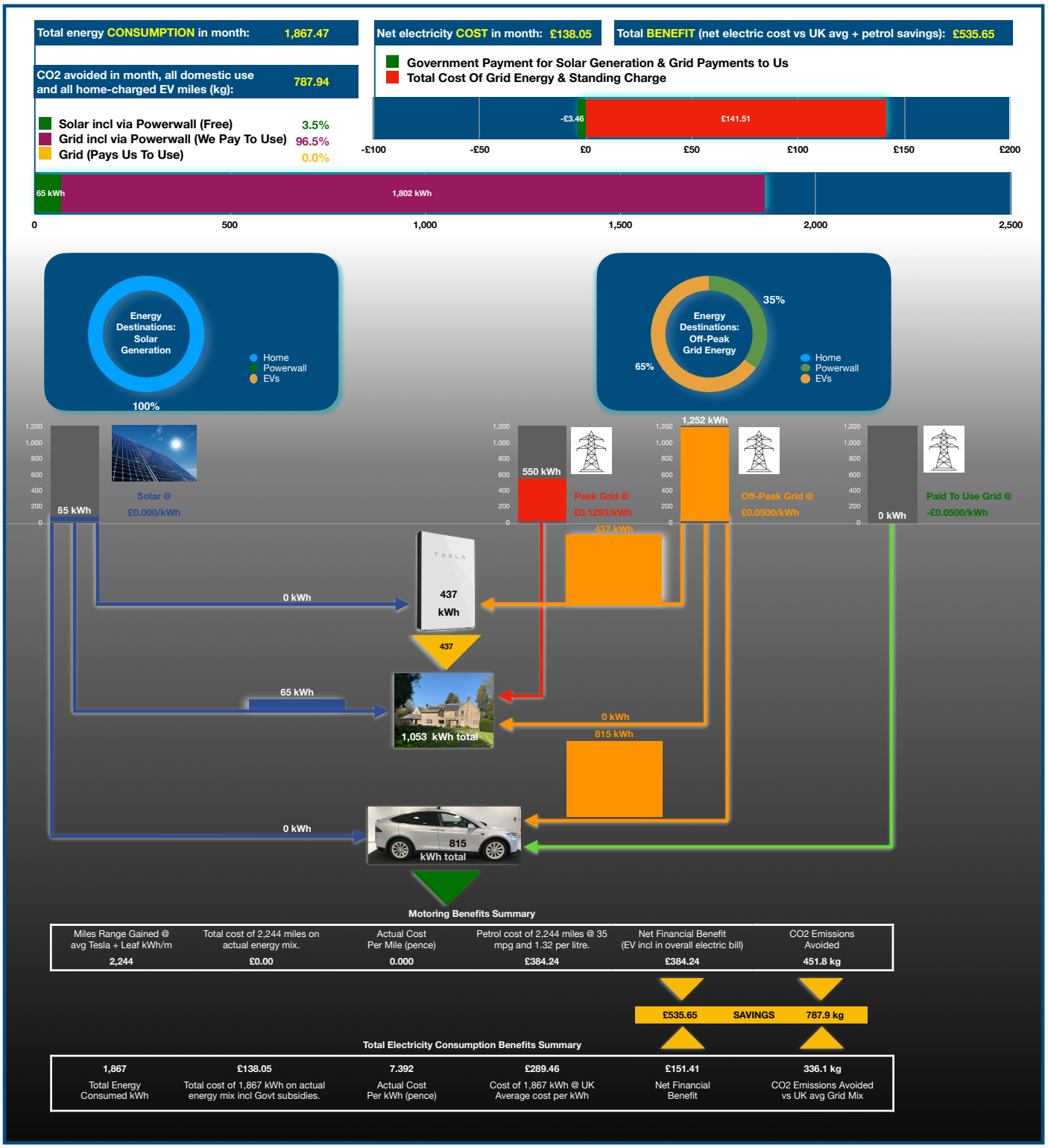
Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	89.6	
Financial benefit of solar generation. (Purchase cost of 89.6 kWh peak grid electricity avoided.)		£11.59
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£5.59
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	437.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 437.0 kWh peak electricity avoided.)		£56.50
Energy charged to EV batteries using off-peak grid electricity.	746.8	
Cost which would have been incurred if 746.8 kWh of peak grid electricity had been used to charge EVs.		£96.56
Cost actually incurred to charge 746.8 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£81.41
Energy charged to EV batteries using energy from solar generation	4.9	
Financial benefit of charging EVs with solar-generated energy (cost of 4.9 kWh peak hours grid electricity avoided).		£0.63
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£155.72**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (99.4% of EV charging at home)	746.8		
Range gained by EVs with 746.8 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			2,057.2
Total gallons required to cover 2,057.2 miles at assumed internal combustion car average mpg			58.8
Litres equivalent of 58.8 gallons			266.8
Total cost of petrol/diesel fuel that would be payable to purchase 266.8 litres, at 1.32 per litre.		£352.24	
Off peak grid energy cost actually incurred to charge 746.8 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£337.09	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (0.6% of EV charging at home)	4.9		
Range gained by EVs with 4.9 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			13.4
Total gallons required to cover 13.4 miles at assumed internal combustion car average mpg			0.4
Litres equivalent of 0.4 gallons			1.7
Total cost of petrol/diesel fuel that would be payable to purchase 1.7 litres, at 1.32 per litre.		£2.29	
Cost of solar energy to charge 4.9 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£2.29	
Total motor fuel savings: 2,070.6 miles charged by a total of 751.6 kWh.		**£339.39**	
Mix: Solar 4.9 kWh; Off-peak grid 746.8 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: December 2019

Energy flows may not add to precisely 100% due to input rounding

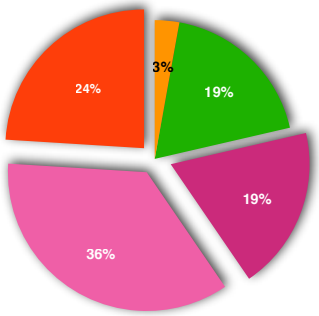


February 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for December 2019.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	65.3
Solar energy generated and used for EV charging	0.0
Solar energy generated and used for Powerwall charging	0.0
Powerwall stored energy used during peak hours. Charged 0.0 kWh solar + 425.0 kWh off-peak grid.	425.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	437.1
Off-peak grid to charge EVs (100% renewable sourced)	814.6
Off-peak grid for any other use (100% renewable sourced)	0.0
Peak grid consumption for any use (100% renewable sourced)	550.5

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	437.1	100.0%	£21.86
Charge from solar	0.0	0.0%	£0.00
Total charge to Powerwall	**437.1**	**Cost Incurred**	**£21.86**
Powerwall discharge during peak hours	425.0	Cost Avoided	£54.95
Net benefit of Powerwall peak-shifting			**£33.10**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,867.5**
Total cost, grid electricity incl. standing charge & VAT	£141.51
Government payments for solar generation	-£3.46
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£138.05
Actual average cost of kWh used (£138.05÷1,867.5)	£0.0739
UK average electricity cost per kWh	£0.1550
Cost of 1,867.5 kWh at UK average cost	£297.21
Total saving on 1,867.5 kWh vs UK average cost	**£159.16**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,867.5**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	336,144
kg CO_2 avoided by using 100% renewables versus UK average	**336.1**

MOTORING BENEFITS RESULTS (2,244.1 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**814.6**
Miles range gained from charging 814.6 kWh	2,244.1
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 2,244.1 miles	£384.24
Total saving on motor fuel versus petrol/diesel	**£384.24**
Total financial benefits in month	**£543.40**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0739**

Total EV miles fuelled with 100% renewable electricity	**2,244.1**
Kilometre equivalent	3,611.5
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	451,800
kg CO_2 avoided by using EVs charged with 100% renewables	**451.8**
Total kilograms CO_2 emissions avoided	**787.9**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

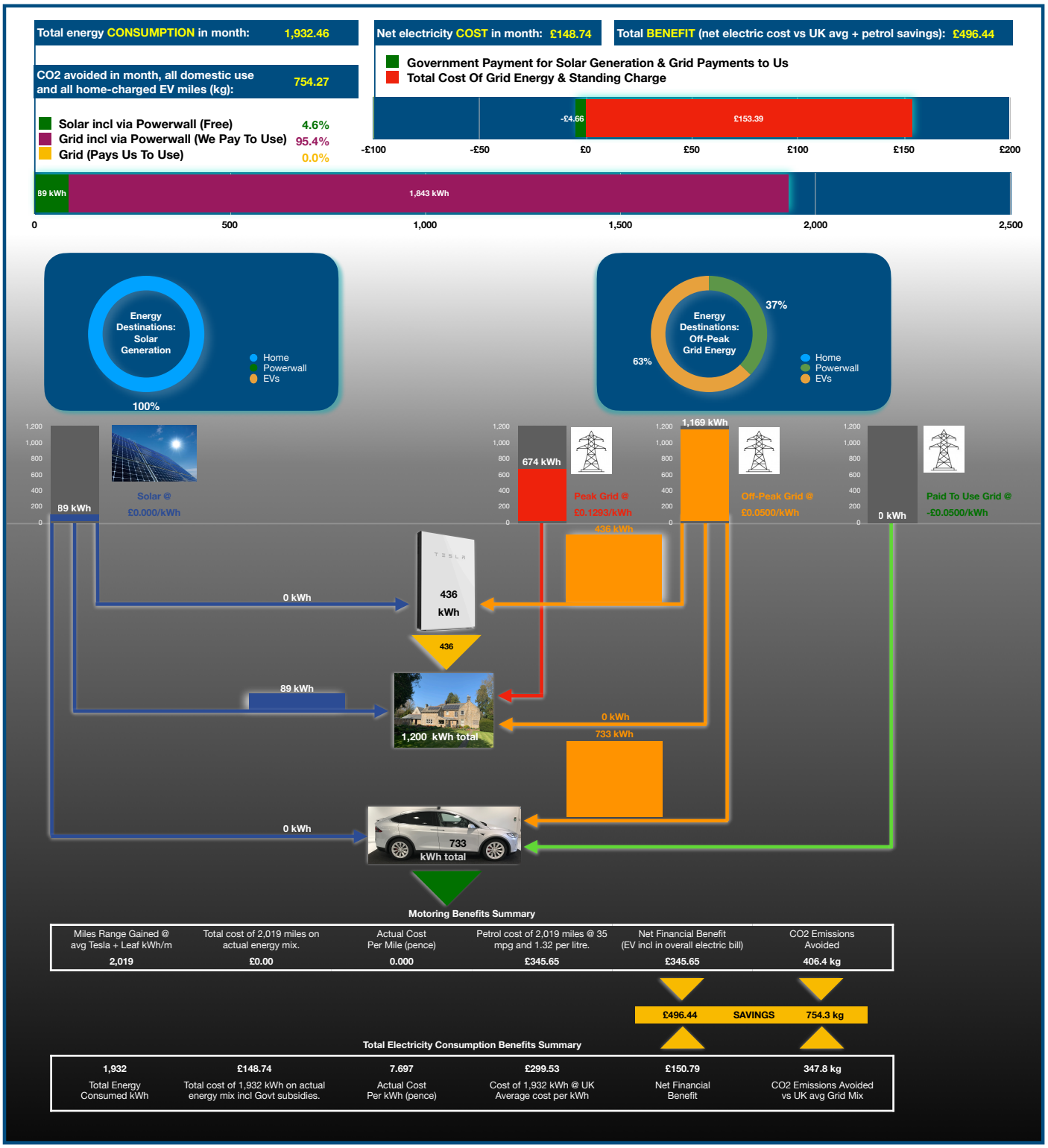
Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	65.3	
Financial benefit of solar generation. (Purchase cost of 65.3 kWh peak grid electricity avoided.)		£8.44
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£3.46
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	425.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 425.0 kWh peak electricity avoided.)		£54.95
Energy charged to EV batteries using off-peak grid electricity.	814.6	
Cost which would have been incurred if 814.6 kWh of peak grid electricity had been used to charge EVs.		£105.33
Cost actually incurred to charge 814.6 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£90.18
Energy charged to EV batteries using energy from solar generation	0.0	
Financial benefit of charging EVs with solar-generated energy (cost of 0.0 kWh peak hours grid electricity avoided).		£0.00
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£157.04**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (100.0% of EV charging at home)	814.6		
Range gained by EVs with 814.6 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			2,244.1
Total gallons required to cover 2,244.1 miles at assumed internal combustion car average mpg			64.1
Litres equivalent of 64.1 gallons			291.1
Total cost of petrol/diesel fuel that would be payable to purchase 291.1 litres, at 1.32 per litre.		£384.24	
Off peak grid energy cost actually incurred to charge 814.6 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£369.10	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (0.0% of EV charging at home)	0.0		
Range gained by EVs with 0.0 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
Cost of solar energy to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£0.00	
Total motor fuel savings: 2,244.1 miles charged by a total of 814.6 kWh.		**£369.10**	
Mix: Solar 0.0 kWh; Off-peak grid 814.6 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: January 2020

Energy flows may not add to precisely 100% due to input rounding

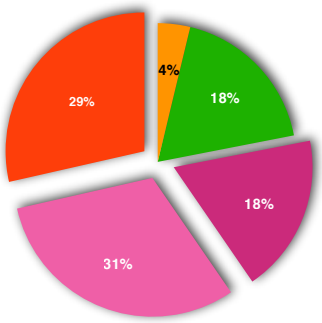


February 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for January 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	89.0
Solar energy generated and used for EV charging	0.0
Solar energy generated and used for Powerwall charging	0.0
Powerwall stored energy used during peak hours. Charged 0.0 kWh solar + 429.0 kWh off-peak grid.	429.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	436.4
Off-peak grid to charge EVs (100% renewable sourced)	732.8
Off-peak grid for any other use (100% renewable sourced)	0.0
Peak grid consumption for any use (100% renewable sourced)	674.3

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	436.4	100.0%	£21.82
Charge from solar	0.0	0.0%	£0.00
Total charge to Powerwall	**436.4**	**Cost Incurred**	**£21.82**
Powerwall discharge during peak hours	429.0	Cost Avoided	£55.47
Net benefit of Powerwall peak-shifting			**£33.65**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,932.5**
Total cost, grid electricity incl. standing charge & VAT	£153.39
Government payments for solar generation	-£4.66
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£148.74
Actual average cost of kWh used (£148.74÷1,932.5)	£0.0770
UK average electricity cost per kWh	£0.1550
Cost of 1,932.5 kWh at UK average cost	£307.28
Total saving on 1,932.5 kWh vs UK average cost	**£158.54**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,932.5**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	347,843
kg CO_2 avoided by using 100% renewables versus UK average	**347.8**

MOTORING BENEFITS RESULTS (2,018.7 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**732.8**
Miles range gained from charging 732.8 kWh	2,018.7
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 2,018.7 miles	£345.65
Total saving on motor fuel versus petrol/diesel	**£345.65**
Total financial benefits in month	**£504.19**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0770**

Total EV miles fuelled with 100% renewable electricity	**2,018.7**
Kilometre equivalent	3,248.8
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	406,428
kg CO_2 avoided by using EVs charged with 100% renewables	**406.4**
Total kilograms CO_2 emissions avoided	**754.3**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	89.0	
Financial benefit of solar generation. (Purchase cost of 89.0 kWh peak grid electricity avoided.)		£11.51
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£4.66
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	429.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 429.0 kWh peak electricity avoided.)		£55.47
Energy charged to EV batteries using off-peak grid electricity.	732.8	
Cost which would have been incurred if 732.8 kWh of peak grid electricity had been used to charge EVs.		£94.75
Cost actually incurred to charge 732.8 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£79.61
Energy charged to EV batteries using energy from solar generation	0.0	
Financial benefit of charging EVs with solar-generated energy (cost of 0.0 kWh peak hours grid electricity avoided).		£0.00
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£151.24**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (100.0% of EV charging at home)	732.8		
Range gained by EVs with 732.8 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			2,018.7
Total gallons required to cover 2,018.7 miles at assumed internal combustion car average mpg			57.7
Litres equivalent of 57.7 gallons			261.9
Total cost of petrol/diesel fuel that would be payable to purchase 261.9 litres, at 1.32 per litre.		£345.65	
Off peak grid energy cost actually incurred to charge 732.8 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£330.50	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (0.0% of EV charging at home)	0.0		
Range gained by EVs with 0.0 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
Cost of solar energy to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£0.00	
Total motor fuel savings: 2,018.7 miles charged by a total of 732.8 kWh.		**£330.50**	
Mix: Solar 0.0 kWh; Off-peak grid 732.8 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: February 2020

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month: 1,840.98

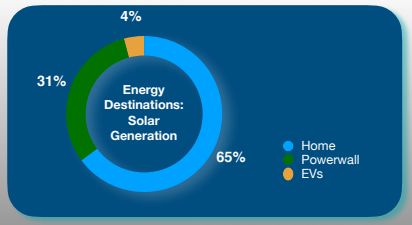
CO2 avoided in month, all domestic use and all home-charged EV miles (kg): 698.12

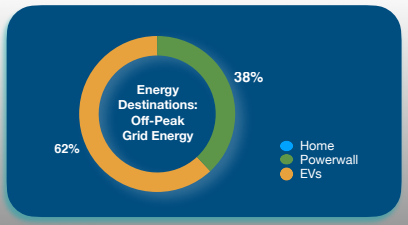
- Solar incl via Powerwall (Free) 13.2%
- Grid incl via Powerwall (We Pay To Use) 86.8%
- Grid (Pays Us To Use) 0.0%

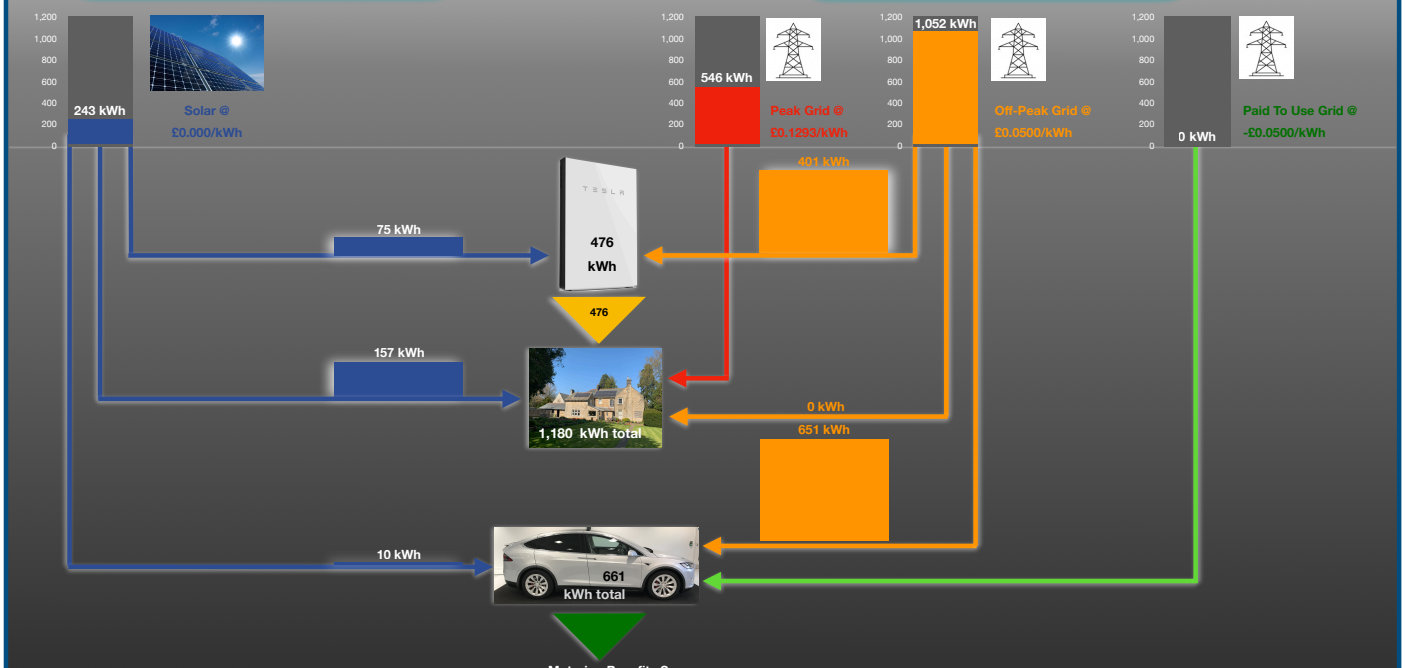
Net electricity COST in month: £118.61

Total BENEFIT (net electric cost vs UK avg + petrol savings): £478.64

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 1,822 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 1,822 miles @ 35 mpg and 1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
1,822	£0.00	0.000	£311.90	£311.90	366.7 kg

£478.64 SAVINGS 698.1 kg

Total Electricity Consumption Benefits Summary

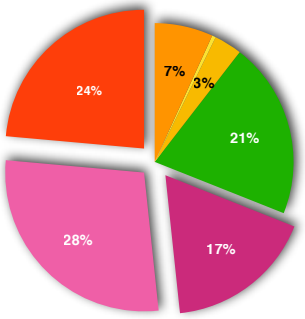
1,841	£118.61	6.443	£285.35	£166.74	331.4 kg
Total Energy Consumed kWh	Total cost of 1,841 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,841 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

February 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for February 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	157.4
Solar energy generated and used for EV charging	10.2
Solar energy generated and used for Powerwall charging	75.2
Powerwall stored energy used during peak hours. Charged 75.2 kWh solar + 400.8 kWh off-peak grid.	476.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	400.8
Off-peak grid to charge EVs (100% renewable sourced)	651.1
Off-peak grid for any other use (100% renewable sourced)	0.0
Peak grid consumption for any use (100% renewable sourced)	546.3

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	400.8	84.2%	£20.04
Charge from solar	75.2	15.8%	£0.00
Total charge to Powerwall	**476.0**	**Cost Incurred**	**£20.04**
Powerwall discharge during peak hours	476.0	Cost Avoided	£61.55
Net benefit of Powerwall peak-shifting			**£41.51**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,841.0**
Total cost, grid electricity incl. standing charge & VAT	£130.48
Government payments for solar generation	-£11.87
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£118.61
Actual average cost of kWh used (£118.61÷1,841.0)	£0.0644
UK average electricity cost per kWh	£0.1550
Cost of 1,841.0 kWh at UK average cost	£292.60
Total saving on 1,841.0 kWh vs UK average cost	**£173.99**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,841.0**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	331,376
kg CO_2 avoided by using 100% renewables versus UK average	**331.4**

MOTORING BENEFITS RESULTS (1,821.6 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**661.2**
Miles range gained from charging 661.2 kWh	1,821.6
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 1,821.6 miles	£311.90
Total saving on motor fuel versus petrol/diesel	**£311.90**
Total financial benefits in month	**£485.89**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0644**

Total EV miles fuelled with 100% renewable electricity	**1,821.6**
Kilometre equivalent	2,931.6
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	366,743
kg CO_2 avoided by using EVs charged with 100% renewables	**366.7**
Total kilograms CO_2 emissions avoided	**698.1**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	157.4	
Financial benefit of solar generation. (Purchase cost of 157.4 kWh peak grid electricity avoided.)		£20.36
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£11.87
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	476.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 476.0 kWh peak electricity avoided.)		£61.55
Energy charged to EV batteries using off-peak grid electricity.	651.1	
Cost which would have been incurred if 651.1 kWh of peak grid electricity had been used to charge EVs.		£84.18
Cost actually incurred to charge 651.1 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£69.04
Energy charged to EV batteries using energy from solar generation	10.2	
Financial benefit of charging EVs with solar-generated energy (cost of 10.2 kWh peak hours grid electricity avoided).		£1.32
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£164.13**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (98.5% of EV charging at home)	651.1		
Range gained by EVs with 651.1 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			1,793.6
Total gallons required to cover 1,793.6 miles at assumed internal combustion car average mpg			51.2
Litres equivalent of 51.2 gallons			232.7
Total cost of petrol/diesel fuel that would be payable to purchase 232.7 litres, at 1.32 per litre.		£307.11	
Off peak grid energy cost actually incurred to charge 651.1 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£291.96	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (1.5% of EV charging at home)	10.2		
Range gained by EVs with 10.2 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			28.0
Total gallons required to cover 28.0 miles at assumed internal combustion car average mpg			0.8
Litres equivalent of 0.8 gallons			3.6
Total cost of petrol/diesel fuel that would be payable to purchase 3.6 litres, at 1.32 per litre.		£4.79	
Cost of solar energy to charge 10.2 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£4.79	
Total motor fuel savings: 1,821.6 miles charged by a total of 661.2 kWh.		**£296.75**	
Mix: Solar 10.2 kWh; Off-peak grid 651.1 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: March 2020

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month: 1,503.47

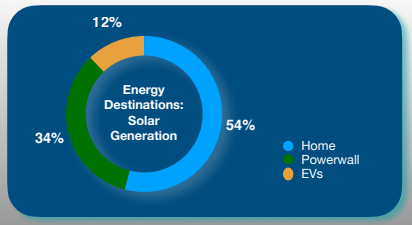
CO2 avoided in month, all domestic use and all home-charged EV miles (kg): 545.56

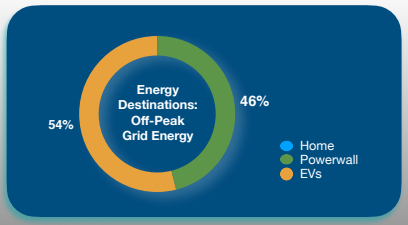
- Solar including via Powerwall (Free) 34.7%
- Grid (We Pay To Use, inc PW charging) 65.3%
- Grid (Pays Us To Use) 0.0%

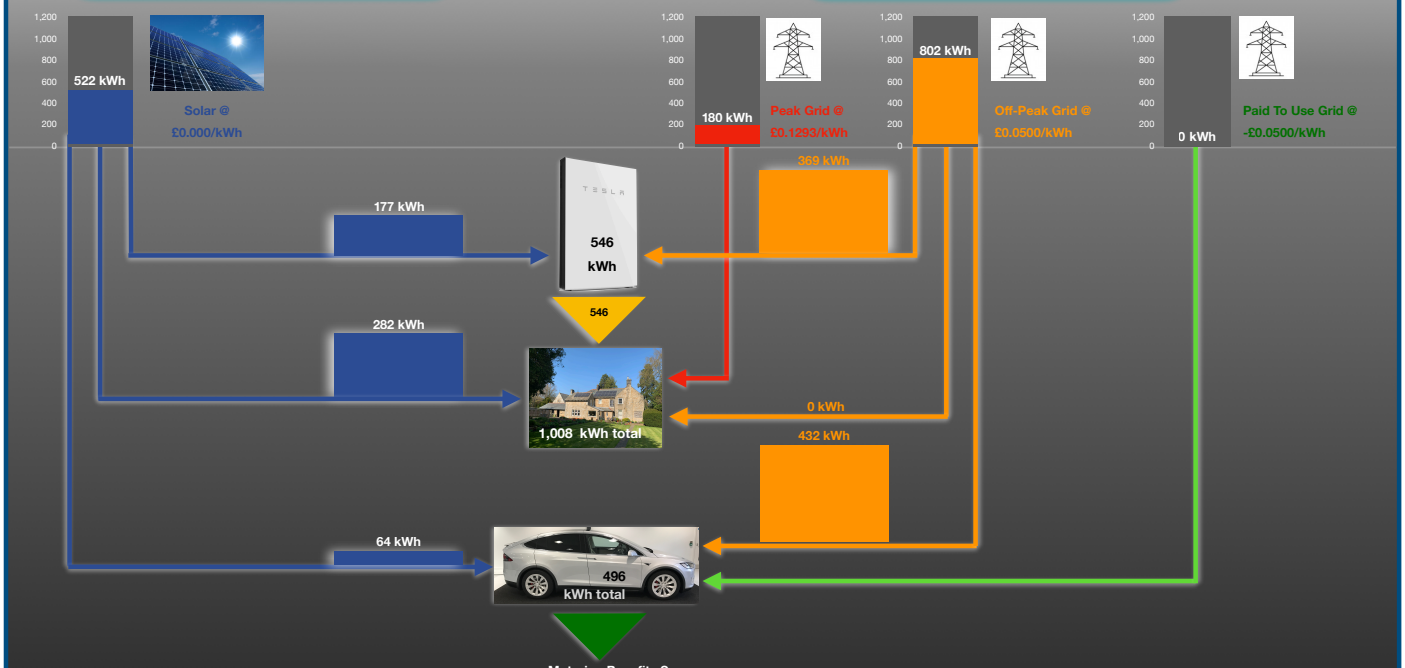
Net electricity COST in month: £45.96

Total BENEFIT (net electric cost vs UK avg + petrol savings): £344.06

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 1,366 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 1,366 miles @ 35 mpg and 1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
1,366	£0.00	0.000	£233.82	£233.82	274.9 kg

£344.06 SAVINGS 545.6 kg

Total Electricity Consumption Benefits Summary

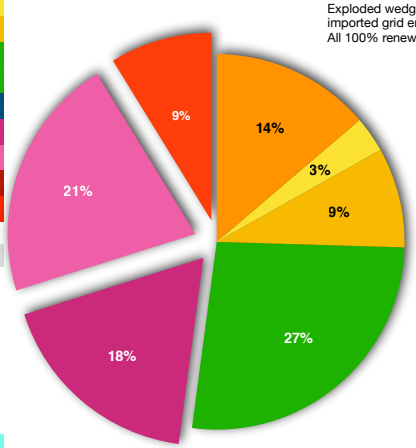
1,008	£45.96	4.561	£156.20	£110.24	270.6 kg
Total Energy Consumed kWh	Total cost of 1,008 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,008 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

March 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for March 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	281.8
Solar energy generated and used for EV charging	63.6
Solar energy generated and used for Powerwall charging	176.6
Powerwall stored energy used during peak hours. Charged 176.6 kWh solar + 369.4 kWh off-peak grid.	546.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	369.4
Off-peak grid to charge EVs (100% renewable sourced)	432.1
Off-peak grid for any other use (100% renewable sourced)	0.0
Peak grid consumption for any use (100% renewable sourced)	180.0

Exploded wedges are imported grid energy. All 100% renewable-sourced.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	369.4	67.7%	£18.47
Charge from solar	176.6	32.3%	£0.00
Total charge to Powerwall	**546.0**	**Cost Incurred**	**£18.47**
Powerwall discharge during peak hours	546.0	Cost Avoided	£70.60
Net benefit of Powerwall peak-shifting			**£52.13**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,503.5**
Total cost, grid electricity incl. standing charge & VAT	£71.10
Government payments for solar generation	-£25.14
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£45.96
Actual average cost of kWh used (£45.96÷1,503.5)	£0.0306
UK average electricity cost per kWh	£0.1550
Cost of 1,503.5 kWh at UK average cost	£240.79
Total saving on 1,503.5 kWh vs UK average cost	**£194.83**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,503.5**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	270,625
kg CO_2 avoided by using 100% renewables versus UK average	**270.6**

MOTORING BENEFITS RESULTS (1,365.6 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**495.7**
Miles range gained from charging 495.7 kWh	1,365.6
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 1,365.6 miles	£233.82
Total saving on motor fuel versus petrol/diesel	**£233.82**
Total financial benefits in month	**£428.65**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0306**

Total EV miles fuelled with 100% renewable electricity	**1,365.6**
Kilometre equivalent	2,197.7
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	274,930
kg CO_2 avoided by using EVs charged with 100% renewables	**274.9**
Total kilograms CO_2 emissions avoided	**545.6**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	281.8	
Financial benefit of solar generation. (Purchase cost of 281.8 kWh peak grid electricity avoided.)		£36.43
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£25.14
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	546.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 546.0 kWh peak electricity avoided.)		£70.60
Energy charged to EV batteries using off-peak grid electricity.	432.1	
Cost which would have been incurred if 432.1 kWh of peak grid electricity had been used to charge EVs.		£55.88
Cost actually incurred to charge 432.1 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£40.73
Energy charged to EV batteries using energy from solar generation	63.6	
Financial benefit of charging EVs with solar-generated energy (cost of 63.6 kWh peak hours grid electricity avoided).		£8.22
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£181.12**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (87.2% of EV charging at home)	432.1		
Range gained by EVs with 432.1 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			1,190.5
Total gallons required to cover 1,190.5 miles at assumed internal combustion car average mpg			34.0
Litres equivalent of 34.0 gallons			154.4
Total cost of petrol/diesel fuel that would be payable to purchase 154.4 litres, at 1.32 per litre.		£203.84	
Off peak grid energy cost actually incurred to charge 432.1 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£188.70	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (12.8% of EV charging at home)	63.6		
Range gained by EVs with 63.6 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			175.1
Total gallons required to cover 175.1 miles at assumed internal combustion car average mpg			5.0
Litres equivalent of 5.0 gallons			22.7
Total cost of petrol/diesel fuel that would be payable to purchase 22.7 litres, at 1.32 per litre.		£29.98	
Cost of solar energy to charge 63.6 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£29.98	
Total motor fuel savings: 1,365.6 miles charged by a total of 495.7 kWh.		**£218.68**	
Mix: Solar 63.6 kWh; Off-peak grid 432.1 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: April 2020

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month: 1,058.77

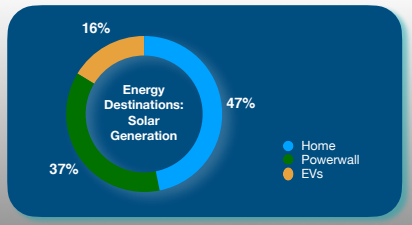
CO2 avoided in month, all domestic use and all home-charged EV miles (kg): 291.44

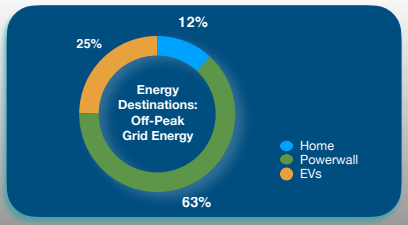
- Solar including via Powerwall (Free) 78.7%
- Grid (We Pay To Use, inc PW charging) 21.3%
- Grid (Pays Us To Use) 0.0%

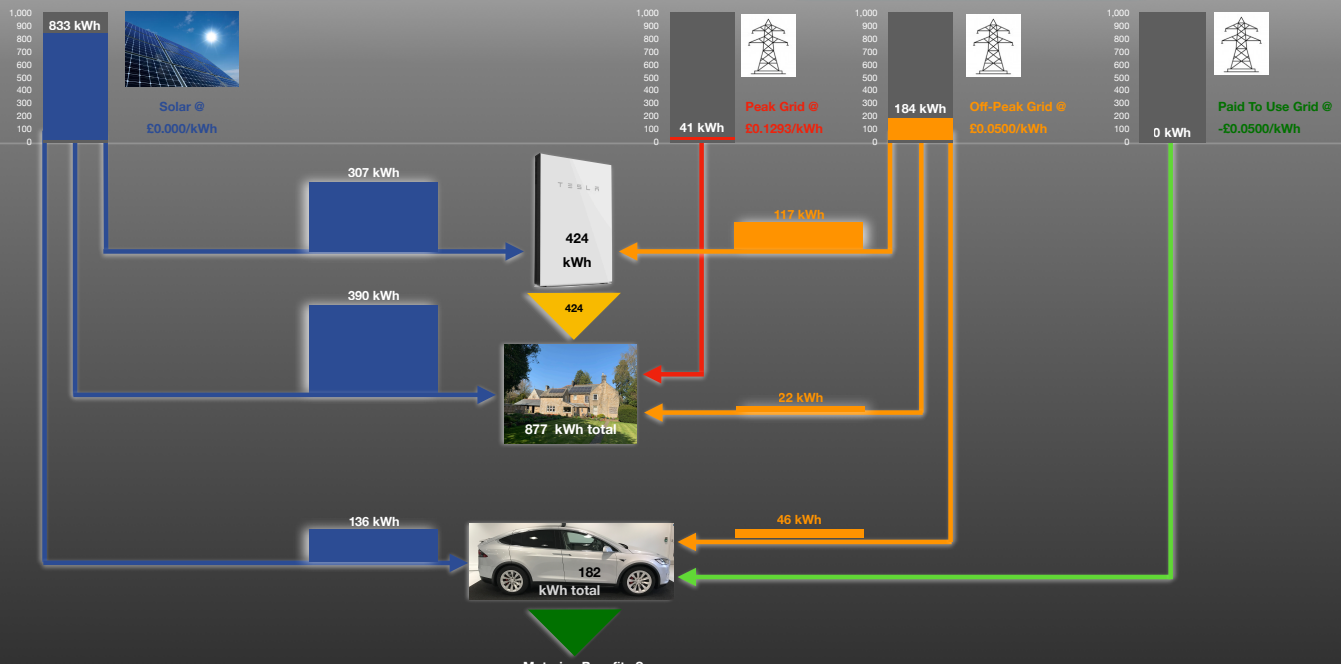
Net electricity COST in month: -£18.90

Total BENEFIT (net electric cost vs UK avg + petrol savings): £268.80

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 501 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 501 miles @ 35 mpg and 1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
501	£0.00	0.000	£85.78	£85.78	100.9 kg

£268.80 SAVINGS 291.4 kg

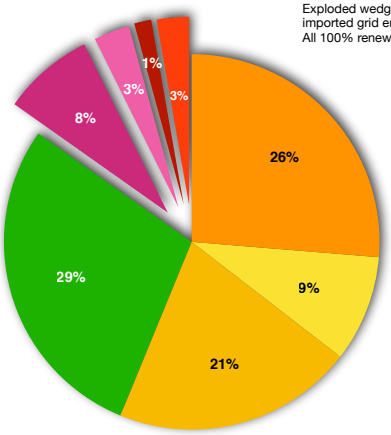
Total Electricity Consumption Benefits Summary

1,059	-£18.90	-1.785	£164.11	£183.01	190.6 kg
183	Total cost of 1,059 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,059 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

April 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for April 2020

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	390.0
Solar energy generated and used for EV charging	136.1
Solar energy generated and used for Powerwall charging	307.3
Powerwall stored energy used during peak hours. Charged 307.3 kWh solar + 116.7 kWh off-peak grid.	424.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	116.7
Off-peak grid to charge EVs (100% renewable sourced)	45.8
Off-peak grid for any other use (100% renewable sourced)	21.8
Peak grid consumption for any use (100% renewable sourced)	41.2



Exploded wedges are imported grid energy. All 100% renewable-sourced.

Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	116.7	27.5%	£5.84
Charge from solar	307.3	72.5%	£0.00
Total charge to Powerwall	**424.0**	**Cost Incurred**	**£5.84**
Powerwall discharge during peak hours	424.0	Cost Avoided	£54.82
Net benefit of Powerwall peak-shifting			**£48.99**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,058.8**
Total cost, grid electricity incl. standing charge & VAT	£21.73
Government payments for solar generation	-£40.63
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	-£18.90
Actual average cost of kWh used (-£18.90÷1,058.8)	-£0.0179
UK average electricity cost per kWh	£0.1550
Cost of 1,058.8 kWh at UK average cost	£171.61
Total saving on 1,058.8 kWh vs UK average cost	**£190.51**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,058.8**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	190,578
kg CO_2 avoided by using 100% renewables versus UK average	**190.6**

MOTORING BENEFITS RESULTS (501.0 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**181.9**
Miles range gained from charging 181.9 kWh	501.0
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 501.0 miles	£85.78
Total saving on motor fuel versus petrol/diesel	**£85.78**
Total financial benefits in month	**£276.30**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**-£0.0179**

Total EV miles fuelled with 100% renewable electricity	**501.0**
Kilometre equivalent	806.3
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	100,863
kg CO_2 avoided by using EVs charged with 100% renewables	**100.9**
Total kilograms CO_2 emissions avoided	**291.4**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	390.0	
Financial benefit of solar generation. (Purchase cost of 390.0 kWh peak grid electricity avoided.)		£50.42
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£40.63
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	424.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 424.0 kWh peak electricity avoided.)		£54.82
Energy charged to EV batteries using off-peak grid electricity.	45.8	
Cost which would have been incurred if 45.8 kWh of peak grid electricity had been used to charge EVs.		£5.92
Cost actually incurred to charge 45.8 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		-£9.22
Energy charged to EV batteries using energy from solar generation	136.1	
Financial benefit of charging EVs with solar-generated energy (cost of 136.1 kWh peak hours grid electricity avoided).		£17.59
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£154.25**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (25.2% of EV charging at home)	45.8		
Range gained by EVs with 45.8 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			126.2
Total gallons required to cover 126.2 miles at assumed internal combustion car average mpg			3.6
Litres equivalent of 3.6 gallons			16.4
Total cost of petrol/diesel fuel that would be payable to purchase 16.4 litres, at 1.32 per litre.		£21.61	
Off peak grid energy cost actually incurred to charge 45.8 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£6.46	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (74.8% of EV charging at home)	136.1		
Range gained by EVs with 136.1 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			374.8
Total gallons required to cover 374.8 miles at assumed internal combustion car average mpg			10.7
Litres equivalent of 10.7 gallons			48.6
Total cost of petrol/diesel fuel that would be payable to purchase 48.6 litres, at 1.32 per litre.		£64.17	
Cost of solar energy to charge 136.1 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£64.17	
Total motor fuel savings: 501.0 miles charged by a total of 181.9 kWh.		**£70.64**	
Mix: Solar 136.1 kWh; Off-peak grid 45.8 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: May 2020

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month: 1,153.56

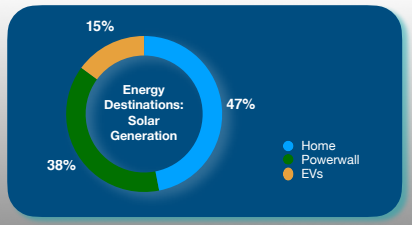
CO2 avoided in month, all domestic use and all home-charged EV miles (kg): 287.23

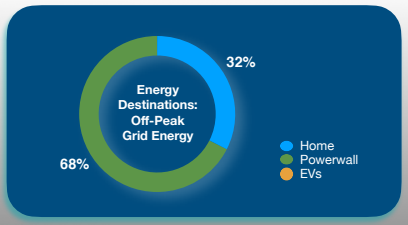
- Solar incl via Powerwall (Free) 83.2%
- Grid incl via Powerwall (We Pay To Use) 15.4%
- Grid (Pays Us To Use) 1.4%

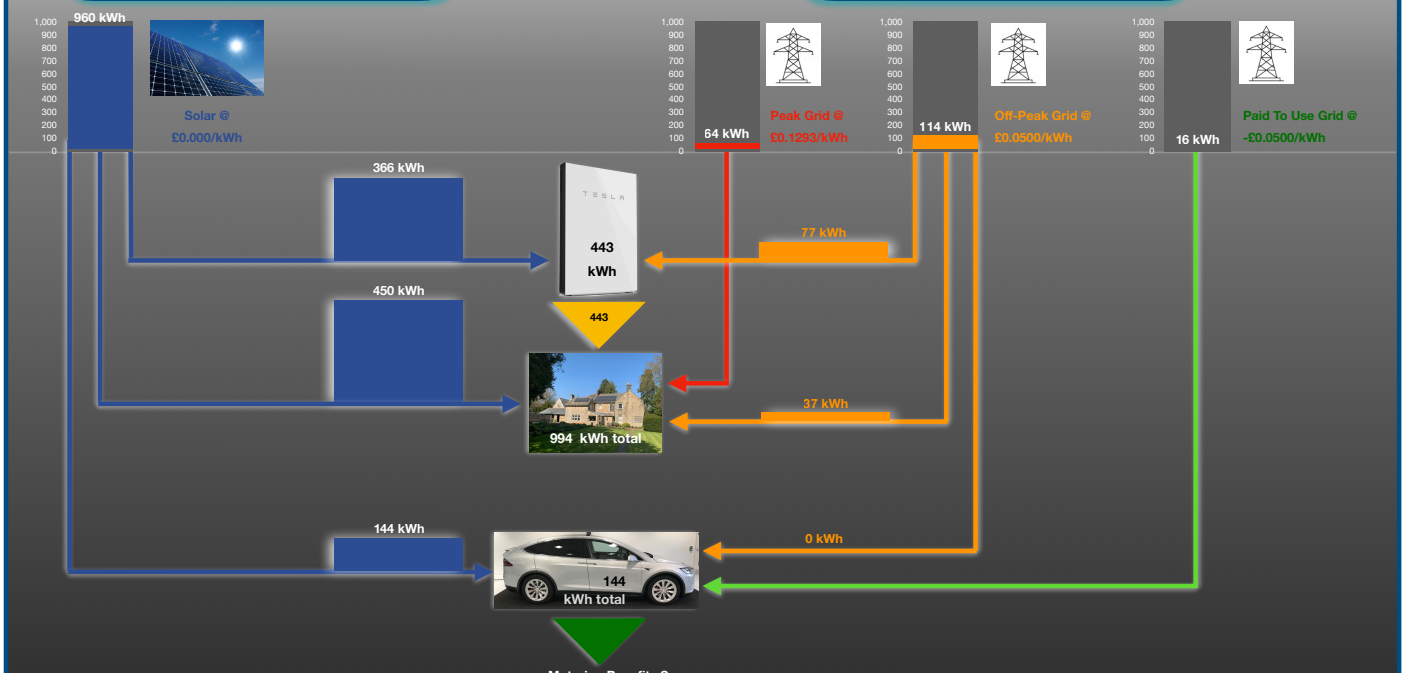
Net electricity COST in month: -£28.21

Total BENEFIT (net electric cost vs UK avg + petrol savings): £274.69

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 395 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 395 miles @ 35 mpg and 1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
395	£0.00	0.000	£67.68	£67.68	79.6 kg

£274.69 SAVINGS 287.2 kg

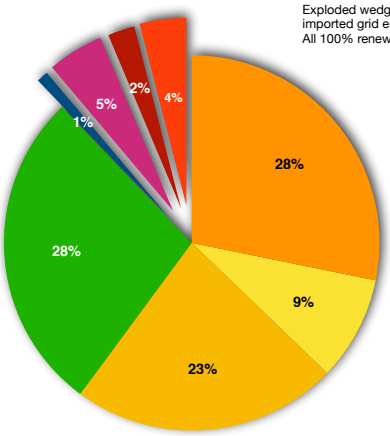
Total Electricity Consumption Benefits Summary

1,154	-£28.21	-2.445	£178.80	£207.01	207.6 kg
Total Energy Consumed kWh	Total cost of 1,154 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,154 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

May 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for May 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	450.2
Solar energy generated and used for EV charging	143.5
Solar energy generated and used for Powerwall charging	366.0
Powerwall stored energy used during peak hours. Charged 366.0 kWh solar + 77.0 kWh off-peak grid.	443.0
Paid To Consume grid energy (100% renewable sourced)	15.8
Off-peak grid to charge Powerwall (100% renewable sourced)	77.0
Off-peak grid to charge EVs (100% renewable sourced)	0.0
Off-peak grid for any other use (100% renewable sourced)	37.0
Peak grid consumption for any use (100% renewable sourced)	64.0



Exploded wedges are imported grid energy. All 100% renewable-sourced.

Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	77.0	17.4%	£3.85
Charge from solar	366.0	82.6%	£0.00
Total charge to Powerwall	**443.0**	**Cost Incurred**	**£3.85**
Powerwall discharge during peak hours	443.0	Cost Avoided	£57.28
Net benefit of Powerwall peak-shifting			**£53.43**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,153.6**
Total cost, grid electricity incl. standing charge & VAT	£21.73
Government payments for solar generation	-£47.10
Payments to consume (Demand Side Response)	-£2.83
Net total electricity bill, net of payments made to us	-£28.21
Actual average cost of kWh used (-£28.21÷1,153.6)	-£0.0245
UK average electricity cost per kWh	£0.1550
Cost of 1,153.6 kWh at UK average cost	£186.55
Total saving on 1,153.6 kWh vs UK average cost	**£214.76**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,153.6**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	207,641
kg CO_2 avoided by using 100% renewables versus UK average	**207.6**

MOTORING BENEFITS RESULTS (395.3 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**143.5**
Miles range gained from charging 143.5 kWh	395.3
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 395.3 miles	£67.68
Total saving on motor fuel versus petrol/diesel	**£67.68**
Total financial benefits in month	**£282.44**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**-£0.0245**

Total EV miles fuelled with 100% renewable electricity	**395.3**
Kilometre equivalent	636.2
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	79,590
kg CO_2 avoided by using EVs charged with 100% renewables	**79.6**
Total kilograms CO_2 emissions avoided	**287.2**

Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.363
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	450.2	
Financial benefit of solar generation. (Purchase cost of 450.2 kWh peak grid electricity avoided.)		£58.22
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£47.10
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	443.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 443.0 kWh peak electricity avoided.)		£57.28
Energy charged to EV batteries using off-peak grid electricity.	0.0	
Cost which would have been incurred if 0.0 kWh of peak grid electricity had been used to charge EVs.		£0.00
Cost actually incurred to charge 0.0 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		-£15.14
Energy charged to EV batteries using energy from solar generation	143.5	
Financial benefit of charging EVs with solar-generated energy (cost of 143.5 kWh peak hours grid electricity avoided).		£18.55
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£166.01**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (0.0% of EV charging at home)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		-£15.14	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.363 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (100.0% of EV charging at home)	143.5		
Range gained by EVs with 143.5 kWh solar charging, assuming 0.363 kWh per mile consumption. (Miles)			395.3
Total gallons required to cover 395.3 miles at assumed internal combustion car average mpg			11.3
Litres equivalent of 11.3 gallons			51.3
Total cost of petrol/diesel fuel that would be payable to purchase 51.3 litres, at 1.32 per litre.		£67.68	
Cost of solar energy to charge 143.5 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£67.68	
Total motor fuel savings: 395.3 miles charged by a total of 143.5 kWh.		**£52.54**	
Mix: Solar 143.5 kWh; Off-peak grid 0.0 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: June 2020

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month (kWh): 995.68

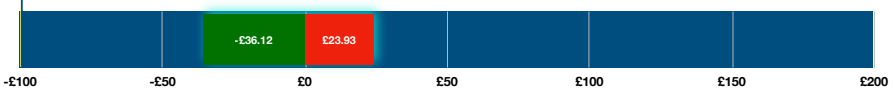
CO_2 avoided in month, all domestic use and all home-charged EV miles (kg): 298.61

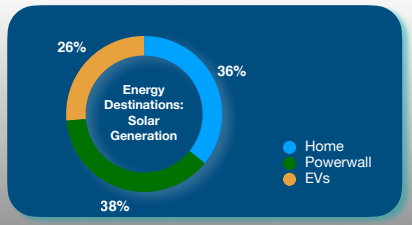
- Solar incl via Powerwall (Free) 74.3%
- Grid incl via Powerwall (We Pay To Use) 25.7%
- Grid (Pays Us To Use) 0.0%

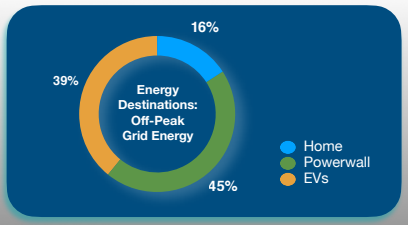
Net electricity COST in month: -£12.19

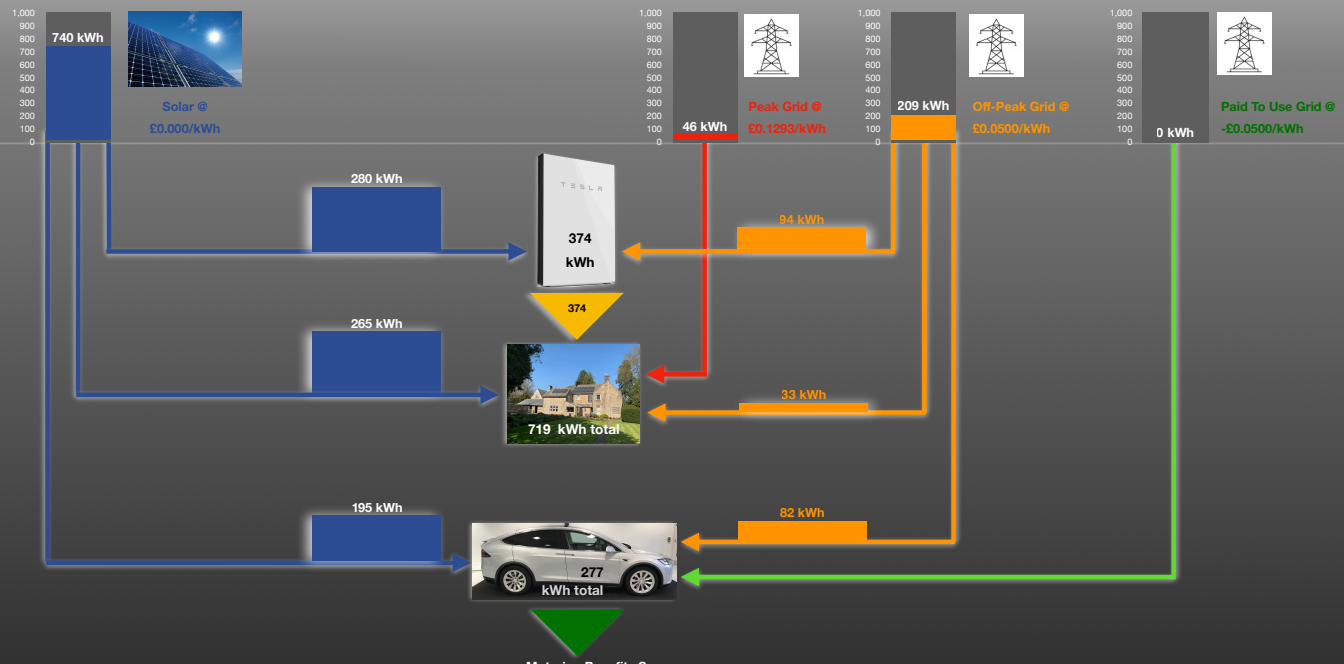
Total BENEFIT (net electric cost vs UK avg + petrol savings): £283.96

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge









Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 593 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 961 miles @ 35 mpg and £1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
961	£4.10	0.426	£160.40	£160.40	193.4 kg

£283.96 SAVINGS 373

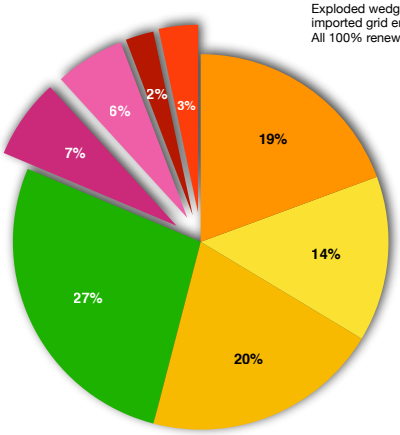
Total Electricity Consumption Benefits Summary

996	-£12.19	-1.697	£111.37	£123.56	179.2 kg
Total Energy Consumed kWh	Total cost of 719 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 719 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

June 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for June 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	265.2
Solar energy generated and used for EV charging	195.2
Solar energy generated and used for Powerwall charging	279.8
Powerwall stored energy used during peak hours. Charged 279.8 kWh solar + 94.2 kWh off-peak grid.	374.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	94.2
Off-peak grid to charge EVs (100% renewable sourced)	81.9
Off-peak grid for any other use (100% renewable sourced)	33.1
Peak grid consumption for any use (100% renewable sourced)	46.1



Exploded wedges are imported grid energy. All 100% renewable-sourced.

Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	94.2	25.2%	£4.71
Charge from solar	279.8	74.8%	£0.00
Total charge to Powerwall	**374.0**	**Cost Incurred**	**£4.71**
Powerwall discharge during peak hours	374.0	Cost Avoided	£48.36
Net benefit of Powerwall peak-shifting			**£43.65**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**995.7**
Total cost, grid electricity incl. standing charge & VAT	£23.93
Government payments for solar generation	-£36.12
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	-£12.19
Actual average cost of kWh used (-£12.19÷995.7)	-£0.0122
UK average electricity cost per kWh	£0.1550
Cost of 995.7 kWh at UK average cost	£161.83
Total saving on 995.7 kWh vs UK average cost	**£174.02**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**995.7**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO2 emissions avoided by using 100% renewables versus UK average	179,223
kg CO2 avoided by using 100% renewables versus UK average	**179.2**

MOTORING BENEFITS RESULTS (593.0 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**277.2**
Miles range gained from charging 277.2 kWh	960.7
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 593.0 miles	£164.49
Total saving on motor fuel versus petrol/diesel	**£160.40**
Total financial benefits in month	**£326.92**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**-£0.0122**

Total EV miles fuelled with 100% renewable electricity	**960.7**
Kilometre equivalent	1,546.1
Average UK CO2 emissions g/km (2018 most recent data)	125.1
Total grams CO2 emissions avoided by using EVs vs UK average	193,416
kg CO2 avoided by using EVs charged with 100% renewables	**193.4**
Total kilograms CO2 emissions avoided	**372.6**

Current Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of both Tesla Model X and Nissan Leaf EVs.	0.289
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	265.2	
Financial benefit of solar generation. (Purchase cost of 265.2 kWh peak grid electricity avoided.)		£34.29
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£36.12
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	374.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 374.0 kWh peak electricity avoided.)		£48.36
Energy charged to EV batteries using off-peak grid electricity.	81.9	
Cost which would have been incurred if 81.9 kWh of peak grid electricity had been used to charge EVs.		£10.59
Cost actually incurred to charge 81.9 kWh to EVs, using off-peak grid electricity only.		£4.10
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£6.50
Energy charged to EV batteries using energy from solar generation	195.2	
Financial benefit of charging EVs with solar-generated energy (cost of 195.2 kWh peak hours grid electricity avoided).		£25.24
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£150.51**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (29.6% of EV charging at home)	81.9		
Range gained by EVs with 81.9 kWh off-peak charging, assuming 0.289 kWh per mile consumption. (Miles)			284.0
Total gallons required to cover 284.0 miles at assumed internal combustion car average mpg			8.1
Litres equivalent of 8.1 gallons			36.8
Total cost of petrol/diesel fuel that would be payable to purchase 36.8 litres, at 1.32 per litre.		£48.63	
Off peak grid energy cost actually incurred to charge 81.9 kWh into EVs.		£4.10	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£44.53	
Total energy charged to EVs from PAID TO CONSUME (Demand Side Response) grid electricity: (0.0% of EV home charging)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.289 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (70.4% of EV charging at home)	195.2		
Range gained by EVs with 195.2 kWh solar charging, assuming 0.289 kWh per mile consumption. (Miles)			676.7
Total gallons required to cover 676.7 miles at assumed internal combustion car average mpg			19.3
Litres equivalent of 19.3 gallons			87.8
Total cost of petrol/diesel fuel that would be payable to purchase 87.8 litres, at 1.32 per litre.		£115.87	
Cost of solar energy to charge 195.2 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£115.87	
Total motor fuel savings: 960.7 miles charged by a total of 277.2 kWh.		**£160.40**	
Mix: Solar 195.2 kWh; Off-peak grid 81.9 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: July 2020

Energy flows may not add to precisely 100% due to input rounding

Total energy CONSUMPTION in month (kWh): 1,215.21

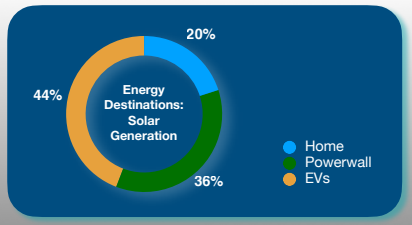
CO_2 avoided in month, all domestic use and all home-charged EV miles (kg): 378.14

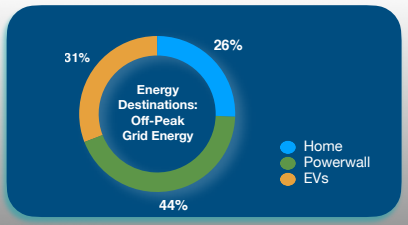
- Solar incl via Powerwall (Free) 67.1%
- Grid incl via Powerwall (We Pay To Use) 32.9%
- Grid (Pays Us To Use) 0.0%

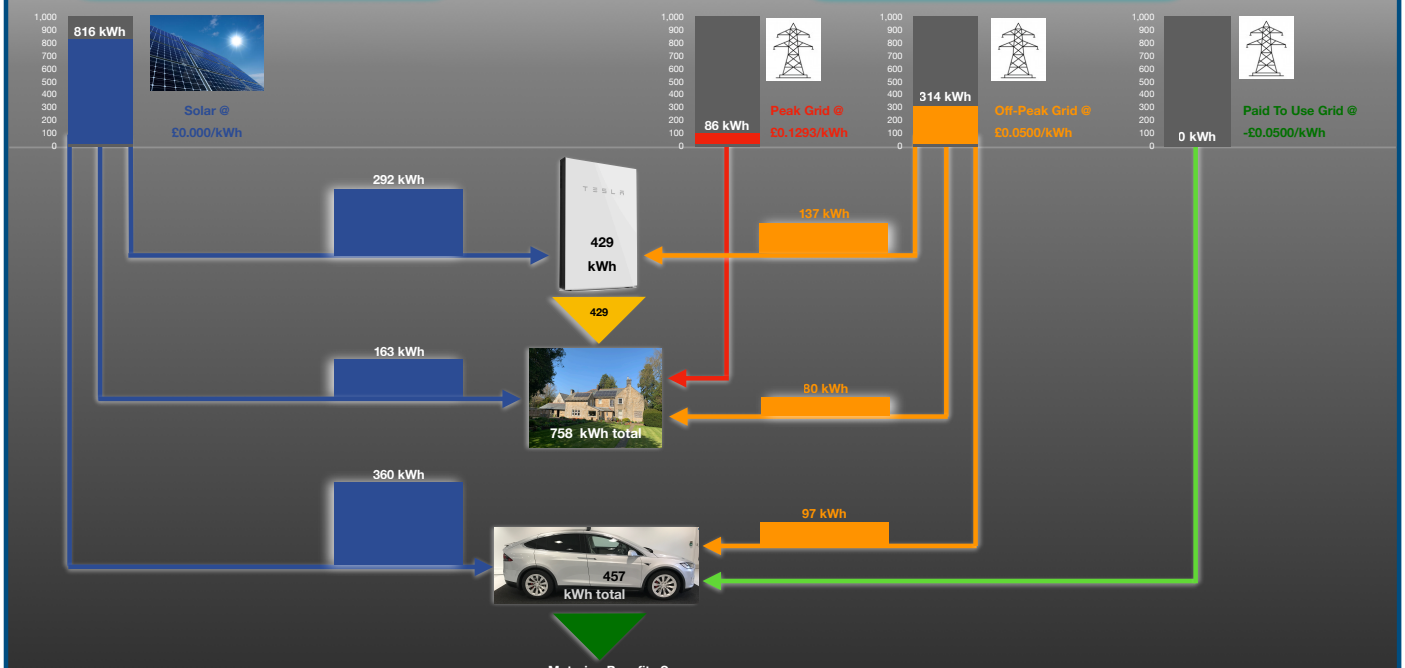
Net electricity COST in month: -£5.36

Total BENEFIT (net electric cost vs UK avg + petrol savings): £384.93

- Government Payment for Solar Generation & Grid Payments to Us
- Total Cost Of Grid Energy & Standing Charge







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 1,559 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 1,559 miles @ 35 mpg and £1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO_2 Emissions Avoided
1,559	£4.84	0.310	£266.92	£266.92	159.4 kg

£389.77 SAVINGS 378.1 kg

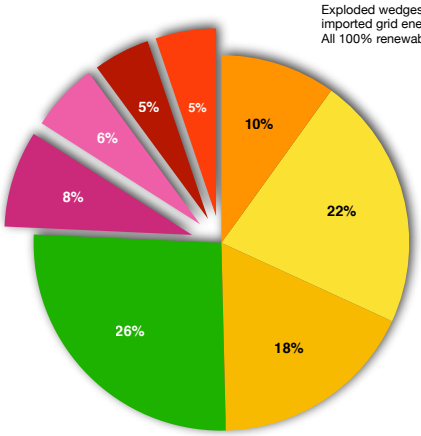
Total Electricity Consumption Benefits Summary

1,215	-£5.36	-0.707	£117.50	£122.85	218.7 kg
Total Energy Consumed kWh	Total cost of 1,215 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,215 kWh @ UK Average cost per kWh	Net Financial Benefit	CO_2 Emissions Avoided vs UK avg Grid Mix

July 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for July 2020.

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	163.3
Solar energy generated and used for EV charging	360.4
Solar energy generated and used for Powerwall charging	292.2
Powerwall stored energy used during peak hours. Charged 292.2 kWh solar + 136.8 kWh off-peak grid.	429.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	136.8
Off-peak grid to charge EVs (100% renewable sourced)	96.8
Off-peak grid for any other use (100% renewable sourced)	80.0
Peak grid consumption for any use (100% renewable sourced)	85.8



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	136.8	31.9%	£6.84
Charge from solar	292.2	68.1%	£0.00
Total charge to Powerwall	**429.0**	**Cost Incurred**	**£6.84**
Powerwall discharge during peak hours	429.0	Cost Avoided	£55.47
Net benefit of Powerwall peak-shifting			**£48.63**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,215.2**
Total cost, grid electricity incl. standing charge & VAT	£34.52
Government payments for solar generation	-£39.88
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	-£5.36
Actual average cost of kWh used (-£5.36÷1,215.2)	-£0.0044
UK average electricity cost per kWh	£0.1550
Cost of 1,215.2 kWh at UK average cost	£196.11
Total saving on 1,215.2 kWh vs UK average cost	**£201.47**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,215.2**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO2 emissions avoided by using 100% renewables versus UK average	218,738
kg CO2 avoided by using 100% renewables versus UK average	**218.7**

MOTORING BENEFITS RESULTS (791.8 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**491.9**
Miles range gained from charging 457.2 kWh	1,559.0
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 1,559.0 miles	£266.92
Total saving on motor fuel versus petrol/diesel	**£262.08**
Total financial benefits in month	**£455.80**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**-£0.0044**

Total EV miles fuelled with 100% renewable electricity	**1559.4**
Kilometre equivalent	2495.04
Average UK CO2 emissions g/km (2018 most recent data)	125.1
Total grams CO2 emissions avoided by using EVs vs UK average	312,130
kg CO2 avoided by using EVs charged with 100% renewables	**312.1**
Total kilograms CO2 emissions avoided	**378.1**

July 2020 detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of both Tesla Model X and Nissan Leaf EVs.	0.293
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	163.3	
Financial benefit of solar generation. (Purchase cost of 163.3 kWh peak grid electricity avoided.)		£21.11
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£39.88
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	429.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 429.0 kWh peak electricity avoided.)		£55.47
Energy charged to EV batteries using off-peak grid electricity.	96.8	
Cost which would have been incurred if 96.8 kWh of peak grid electricity had been used to charge EVs.		£12.51
Cost actually incurred to charge 96.8 kWh to EVs, using off-peak grid electricity only.		£4.84
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£7.67
Energy charged to EV batteries using energy from solar generation	360.4	
Financial benefit of charging EVs with solar-generated energy (cost of 360.4 kWh peak hours grid electricity avoided).		£46.60
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£170.73**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (21.2% of EV charging at home)	96.8		
Range gained by EVs with 96.8 kWh off-peak charging, assuming 0.293 kWh per mile consumption. (Miles)			330.0
Total gallons required to cover 330.0 miles at assumed internal combustion car average mpg			9.4
Litres equivalent of 9.4 gallons			42.8
Total cost of petrol/diesel fuel that would be payable to purchase 42.8 litres, at 1.32 per litre.		£56.50	
Off peak grid energy cost actually incurred to charge 96.8 kWh into EVs.		£4.84	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£51.66	
Total energy charged to EVs from PAID TO CONSUME grid electricity: (0.0% of EV charging at home)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.293 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (78.8% of EV charging at home)	360.4		
Range gained by EVs with 360.4 kWh solar charging, assuming 0.293 kWh per mile consumption. (Miles)			1,228.9
Total gallons required to cover 1,228.9 miles at assumed internal combustion car average mpg			35.1
Litres equivalent of 35.1 gallons			159.4
Total cost of petrol/diesel fuel that would be payable to purchase 159.4 litres, at 1.32 per litre.		£210.42	
Cost of solar energy to charge 360.4 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£210.42	
Total motor fuel savings: 791.8 miles charged by a total of 457.2 kWh.		**£262.08**	
Mix: Solar 360.4 kWh; Off-peak grid 96.8 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: August 2020

Energy flows may not add to precisely 100% due to input rounding

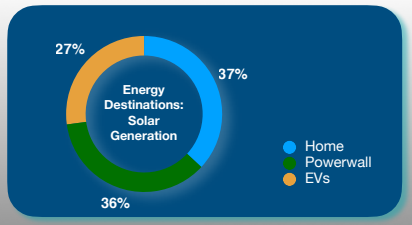
Total energy CONSUMPTION in month (kWh): 1,162.63

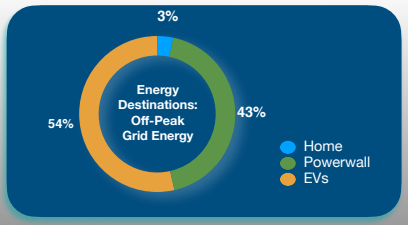
Net electricity COST in month: £17.26

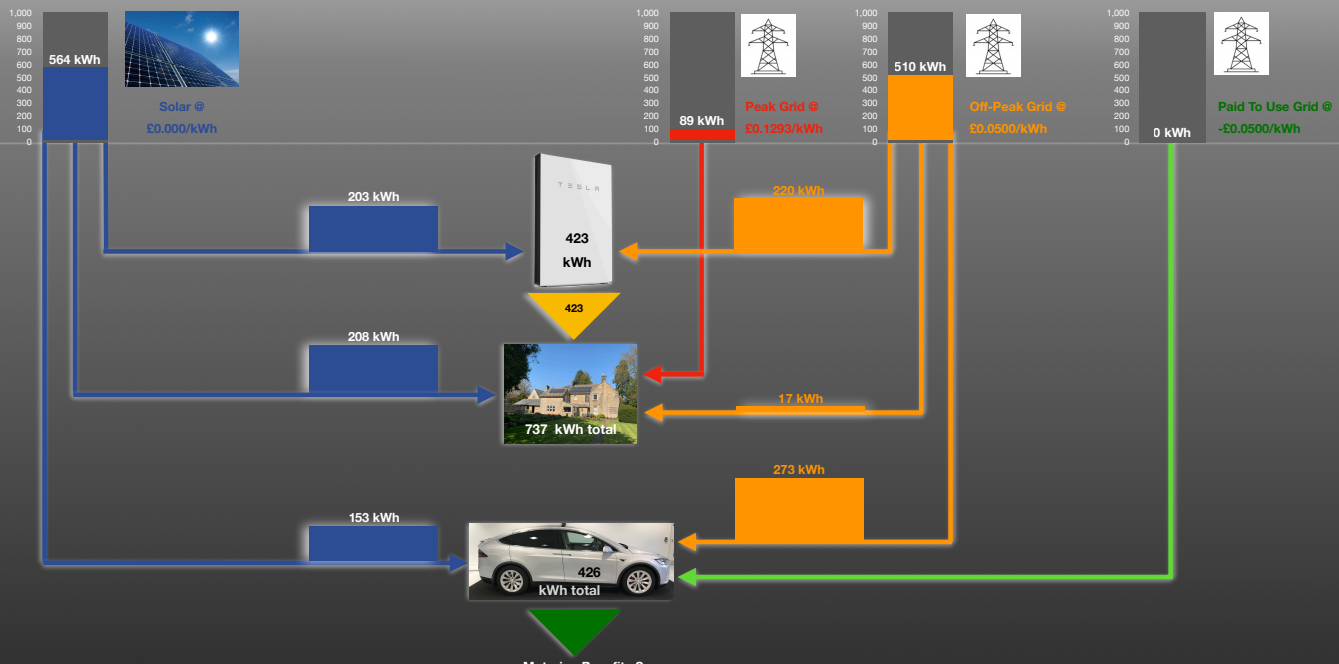
Total BENEFIT (net electric cost vs UK avg + petrol savings): £331.99

CO_2 avoided in month, all domestic use and all home-charged EV miles (kg): 448.00

- Solar incl via Powerwall (Free) 48.5%
- Grid incl via Powerwall (We Pay To Use) 51.5%
- Grid (Pays Us To Use) 0.0%







Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 1,186 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 1,186 miles @ 35 mpg and £1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO2 Emissions Avoided
1,186	£13.65	1.151	£248.72	£248.72	238.7 kg

£345.64 SAVINGS 448.0 kg

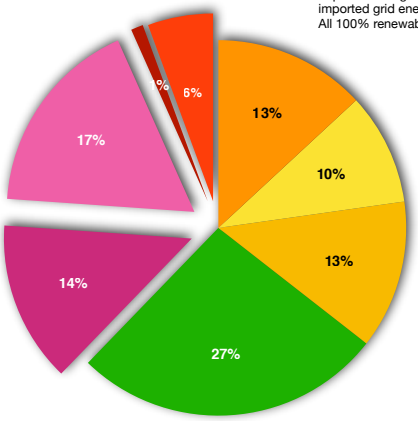
Total Electricity Consumption Benefits Summary

1,163	£17.26	2.343	£114.18	£96.92	209.3 kg
Total Energy Consumed kWh	Total cost of 737 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 737 kWh @ UK Average cost per kWh	Net Financial Benefit	CO2 Emissions Avoided vs UK avg Grid Mix

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	207.8
Solar energy generated and used for EV charging	153.1
Solar energy generated and used for Powerwall charging	202.9
Powerwall stored energy used during peak hours. Charged 202.9 kWh solar + 220.1 kWh off-peak grid.	423.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	220.1
Off-peak grid to charge EVs (100% renewable sourced)	273.0
Off-peak grid for any other use (100% renewable sourced)	16.7
Peak grid consumption for any use (100% renewable sourced)	89.2

August 2020 How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for August 2020.



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	220.1	52.0%	£11.01
Charge from solar	202.9	48.0%	£0.00
Total charge to Powerwall	**423.0**	**Cost Incurred**	**£11.01**
Powerwall discharge during peak hours	423.0	Cost Avoided	£54.69
Net benefit of Powerwall peak-shifting			**£43.69**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,162.6**
Total cost, grid electricity incl. standing charge & VAT	£44.77
Government payments for solar generation	-£27.51
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£17.26
Actual average cost of kWh used (£17.26÷1,162.6)	£0.0148
UK average electricity cost per kWh	£0.1550
Cost of 1,162.6 kWh at UK average cost	£187.96
Total saving on 1,162.6 kWh vs UK average cost	**£170.70**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,162.6**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO2 emissions avoided by using 100% renewables versus UK average	209,274
kg CO2 avoided by using 100% renewables versus UK average	**209.3**

MOTORING BENEFITS RESULTS (1,185.7 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**426.0**
Miles range gained from charging 426.0 kWh	1,185.7
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 1,185.7 miles	£248.72
Total saving on motor fuel versus petrol/diesel	**£235.07**
Total financial benefits in month	**£398.02**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0148**

Total EV miles fuelled with 100% renewable electricity	**1,185.7**
Kilometre equivalent	1,908.2
Average UK CO2 emissions g/km (2018 most recent data)	125.1
Total grams CO2 emissions avoided by using EVs vs UK average	238,721
kg CO2 avoided by using EVs charged with 100% renewables	**238.7**
Total kilograms CO2 emissions avoided	**448.0**

Current Month detailed data

Variables & Key Inputs

CORE VARIABLES	
CORE VARIABLES	
Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of both Tesla Model X and Nissan Leaf EVs.	0.293
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	207.8	
Financial benefit of solar generation. (Purchase cost of 207.8 kWh peak grid electricity avoided.)		£26.86
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£27.51
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	423.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 423.0 kWh peak electricity avoided.)		£54.69
Energy charged to EV batteries using off-peak grid electricity.	273.0	
Cost which would have been incurred if 273.0 kWh of peak grid electricity had been used to charge EVs.		£35.29
Cost actually incurred to charge 273.0 kWh to EVs, using off-peak grid electricity only.		£13.65
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£21.65
Energy charged to EV batteries using energy from solar generation	153.1	
Financial benefit of charging EVs with solar-generated energy (cost of 153.1 kWh peak hours grid electricity avoided).		£19.79
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£150.50**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (64.1% of EV charging at home)	273.0		
Range gained by EVs with 273.0 kWh off-peak charging, assuming 0.293 kWh per mile consumption. (Miles)			930.7
Total gallons required to cover 930.7 miles at assumed internal combustion car average mpg			26.6
Litres equivalent of 26.6 gallons			120.7
Total cost of petrol/diesel fuel that would be payable to purchase 120.7 litres, at 1.32 per litre.		£159.36	
Off peak grid energy cost actually incurred to charge 273.0 kWh into EVs.		£13.65	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£145.71	
Total energy charged to EVs from PAID TO CONSUME grid electricity: (0.0% of EV charging at home)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.293 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (35.9% of EV charging at home)	153.1		
Range gained by EVs with 153.1 kWh solar charging, assuming 0.293 kWh per mile consumption. (Miles)			521.9
Total gallons required to cover 521.9 miles at assumed internal combustion car average mpg			14.9
Litres equivalent of 14.9 gallons			67.7
Total cost of petrol/diesel fuel that would be payable to purchase 67.7 litres, at 1.32 per litre.		£89.36	
Cost of solar energy to charge 153.1 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£89.36	
Total motor fuel savings: 1,185.7 miles charged by a total of 426.0 kWh.		**£235.07**	
Mix: Solar 153.1 kWh; Off-peak grid 273.0 kWh; Paid To Use grid 0.0 kWh.			

Monthly Performance Report: September 2020

Energy flows may not add to precisely 100% due to input rounding

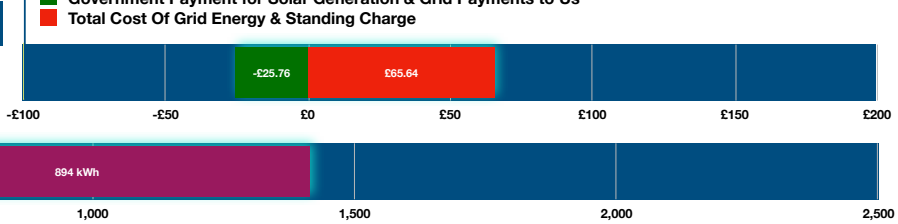
Total energy CONSUMPTION in month (kWh): 1,417.76

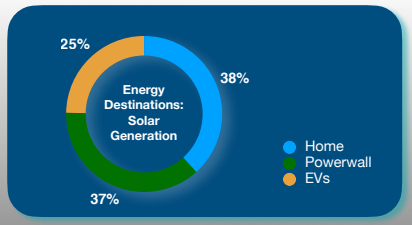
Net electricity COST in month: £39.88

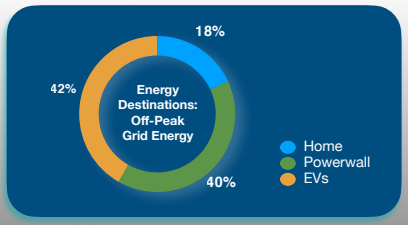
Total BENEFIT (net electric cost vs UK avg + petrol savings): £432.42

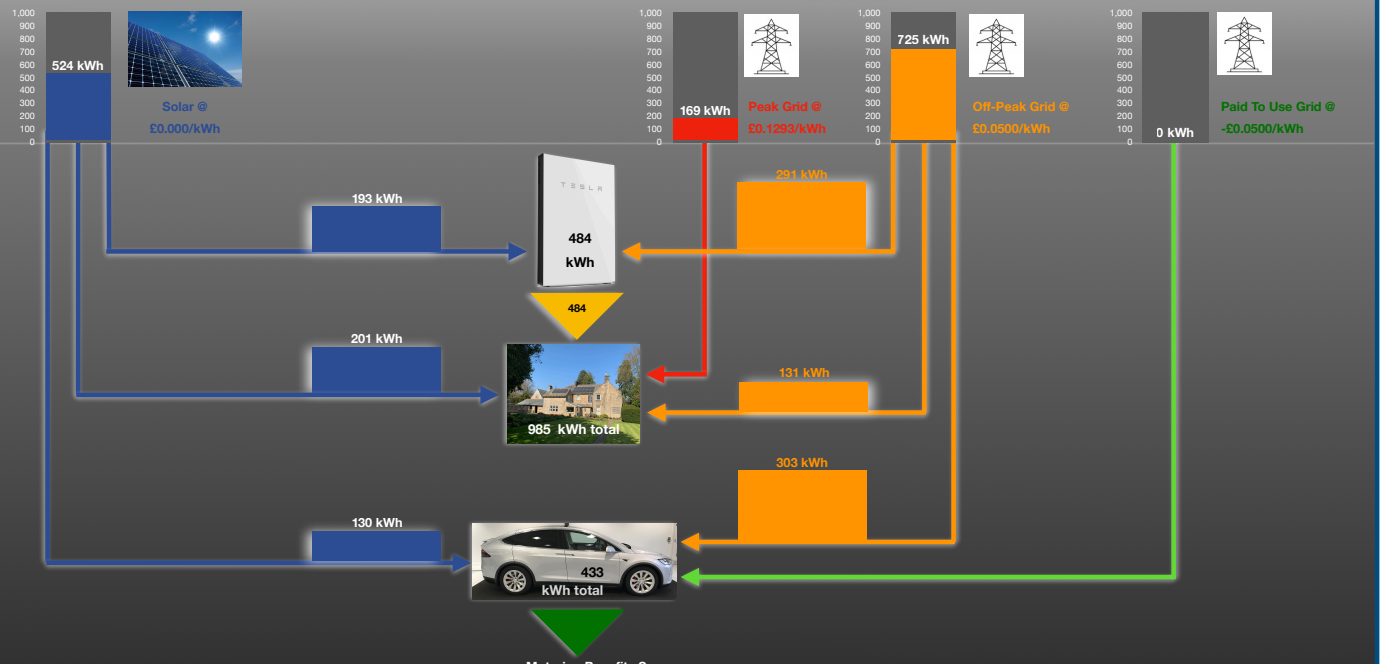
CO_2 avoided in month, all domestic use and all home-charged EV miles (kg): 495.61

- Solar incl via Powerwall (Free) 36.9%
- Grid incl via Powerwall (We Pay To Use) 63.1%
- Grid (Pays Us To Use) 0.0%









Motoring Benefits Summary

Miles Range Gained @ avg Tesla + Leaf kWh/m	Total cost of 1,194 miles on actual energy mix.	Actual Cost Per Mile (pence)	Petrol cost of 1,194 miles @ 35 mpg and £1.32 per litre.	Net Financial Benefit (EV incl in overall electric bill)	CO_2 Emissions Avoided
1,194	£0.00	0.000	£252.55	£252.55	240.4 kg

£432.42 SAVINGS 495.6 kg

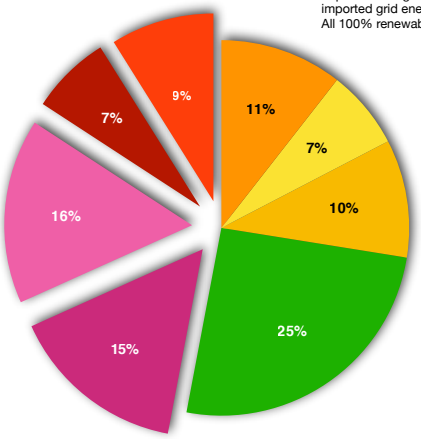
Total Electricity Consumption Benefits Summary

1,418	£39.88	2.813	£219.75	£179.87	255.2 kg
Total Energy Consumed kWh	Total cost of 1,418 kWh on actual energy mix incl Govt subsidies.	Actual Cost Per kWh (pence)	Cost of 1,418 kWh @ UK Average cost per kWh	Net Financial Benefit	CO_2 Emissions Avoided vs UK avg Grid Mix

SUMMARY ENERGY RESULTS	kWh
Solar energy generated and used for domestic consumption.	200.7
Solar energy generated and used for EV charging	129.7
Solar energy generated and used for Powerwall charging	193.2
Powerwall stored energy used during peak hours. Charged 193.2 kWh solar + 290.8 kWh off-peak grid.	484.0
Paid To Consume grid energy (100% renewable sourced)	0.0
Off-peak grid to charge Powerwall (100% renewable sourced)	290.8
Off-peak grid to charge EVs (100% renewable sourced)	302.9
Off-peak grid for any other use (100% renewable sourced)	131.2
Peak grid consumption for any use (100% renewable sourced)	169.3

CURRENT MONTH How To Electrify Your Life Performance Report

Overall performance and benefits of our generation, storage and EV charging system for September 2020



Powerwall Breakdown	kWh		GBP
Charge from off-peak grid electricity import	290.8	60.1%	£14.54
Charge from solar	193.2	39.9%	£0.00
Total charge to Powerwall	**484.0**	**Cost Incurred**	**£14.54**
Powerwall discharge during peak hours	484.0	Cost Avoided	£62.58
Net benefit of Powerwall peak-shifting			**£48.04**

SUMMARY COST SAVING RESULTS (all electricity use, incl. EV charge)	
Total energy consumed (kWh)	**1,417.8**
Total cost, grid electricity incl. standing charge & VAT	£65.64
Government payments for solar generation	-£25.76
Payments to consume (Demand Side Response)	£0.00
Net total electricity bill, net of payments made to us	£39.88
Actual average cost of kWh used (£39.88÷1,417.8)	£0.0281
UK average electricity cost per kWh	£0.1550
Cost of 1,417.8 kWh at UK average cost	£227.25
Total saving on 1,417.8 kWh vs UK average cost	**£187.37**

SUMMARY OF CLIMATE BENEFITS	
Total electricity used (kWh)	**1,417.8**
All solar and grid energy used is from 100% renewable generation.	
Avg UK emissions (g/kWh): "For all sources of electricity, the average amount of carbon dioxide emitted in 2018 amounted to 180 tonnes per GWh of electricity supplied." [Source]	180
Total grams CO_2 emissions avoided by using 100% renewables versus UK average	255,196
kg CO_2 avoided by using 100% renewables versus UK average	**255.2**

MOTORING BENEFITS RESULTS (1,194.1 miles gained from charging EVs)	
Total energy charged to EVs (kWh)	**432.6**
Miles range gained from charging 432.6 kWh	1,194.1
Cost of EV charging grid energy (incl. in total energy above)	£0.00
Fuel costs to drive a petrol/diesel car 1,194.1 miles	£252.55
Total saving on motor fuel versus petrol/diesel	**£252.55**
Total financial benefits in month	**£439.92**

Grid Energy Prices	
UK average grid price	£0.1550
Off-peak 00:30 – 04:30	£0.0500
Peak (all other times)	£0.1293
Grid pays us to use	-£0.0500
Average per kWh on this month's energy mix	**£0.0281**

Total EV miles fuelled with 100% renewable electricity	**1,194.1**
Kilometre equivalent	1,921.8
Average UK CO_2 emissions g/km (2018 most recent data)	125.1
Total grams CO_2 emissions avoided by using EVs vs UK average	240,416
kg CO_2 avoided by using EVs charged with 100% renewables	**240.4**
Total kilograms CO_2 emissions avoided	**495.6**

September 2020 detailed data

Variables & Key Inputs

CORE VARIABLES	
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Number of days in month	30
Number of solar panels in operation in period	24
Peak generating capacity of each panel (kWp)	0.31
Peak generating capacity of all panels combined (kWp)	**7.44**
Off-peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.0500
Peak grid electricity (Octopus Go tariff), cost per kWh, including VAT	£0.1293
PAY TO CONSUME rate PAID to use to grid electricity during Demand Side Response period, per kWh, including VAT	-£0.0500
Saving for every kWh charged into Powerwall at off-peak but used at peak time	£0.0793
Average energy consumption (kWh per mile) per mile of *both* Tesla Model X and Nissan Leaf EVs.	0.293
Assumed average mpg of internal combustion engine cars for motoring benefit calculations	35
Gallons to Litres conversion	4.54
Assumed price per litre of fuels for motoring benefit calculations	1.32

Energy Cost Saving Benefits

Energy Performance and related Financial Benefits in month	Energy (kWh)	Financial (GBP)
Solar energy generated in peak hours by solar panels and used immediately on site	200.7	
Financial benefit of solar generation. (Purchase cost of 200.7 kWh peak grid electricity avoided.)		£25.95
Financial benefit of Government payments for solar generation (applies to 16 panels only, other panels too late for subsidy).		£25.76
Energy discharged from Powerwall battery during peak hours. (Energy charged to battery using off-peak grid and solar only).	484.0	
Financial benefit of Powerwall discharging stored energy during peak hours. (Cost of 484.0 kWh peak electricity avoided.)		£62.58
Energy charged to EV batteries using off-peak grid electricity.	302.9	
Cost which would have been incurred if 302.9 kWh of peak grid electricity had been used to charge EVs.		£39.16
Cost actually incurred to charge 302.9 kWh to EVs, using off-peak grid electricity only.		£15.14
Financial benefit of using off-peak energy (Octopus Go tariff) to charge EVs – peak cost avoided minus off-peak cost paid		£24.02
Energy charged to EV batteries using energy from solar generation	129.7	
Financial benefit of charging EVs with solar-generated energy (cost of 129.7 kWh peak hours grid electricity avoided).		£16.77
Energy used during PAY TO CONSUME Demand Side Response period	0.0	
Per kWh rate PAID to us by Octopus for consuming energy during Demand Side Response Period		£0.05
Financial benefit of Octopus PAY TO CONSUME. (Payment for 0.0 kWh used during Demand Side Response Period.)		£0.00
Total direct energy-related financial benefits in month		**£155.07**

Motor Fuel Cost Saving Benefits

Motor fuel saving benefits in month	Energy (kWh)	Financial (GBP)	Calcs
Total energy charged to EVs from off-peak grid electricity: (70.0% of EV charging at home)	302.9		
Range gained by EVs with 302.9 kWh off-peak charging, assuming 0.293 kWh per mile consumption. (Miles)			1,032.8
Total gallons required to cover 1,032.8 miles at assumed internal combustion car average mpg			29.5
Litres equivalent of 29.5 gallons			134.0
Total cost of petrol/diesel fuel that would be payable to purchase 134.0 litres, at 1.32 per litre.		£176.84	
Off peak grid energy cost actually incurred to charge 302.9 kWh into EVs.		£15.14	
Financial benefit of charging EVs with off peak electricity versus the cost of petrol/diesel fuel to cover the same distance.		£161.69	
Total energy charged to EVs from PAID TO CONSUME grid electricity: (0.0% of EV charging at home)	0.0		
Range gained by EVs with 0.0 kWh off-peak charging, assuming 0.293 kWh per mile consumption. (Miles)			0.0
Total gallons required to cover 0.0 miles at assumed internal combustion car average mpg			0.0
Litres equivalent of 0.0 gallons			0.0
Total cost of petrol/diesel fuel that would be payable to purchase 0.0 litres, at 1.32 per litre.		£0.00	
per kWh rate PAID to us by Octopus to consume this energy during Demand Side Response period		-£0.05	
Off peak grid energy cost actually incurred to charge 0.0 kWh into EVs.		£0.00	
Financial benefit of charging EVs with PAY TO CONSUME electricity vs the cost of petrol/diesel to cover the same distance.		£0.00	
Total energy charged to EVs from solar: (30.0% of EV charging at home)	129.7		
Range gained by EVs with 129.7 kWh solar charging, assuming 0.293 kWh per mile consumption. (Miles)			442.2
Total gallons required to cover 442.2 miles at assumed internal combustion car average mpg			12.6
Litres equivalent of 12.6 gallons			57.4
Total cost of petrol/diesel fuel that would be payable to purchase 57.4 litres, at 1.32 per litre.		£75.71	
Cost of solar energy to charge 129.7 kWh into EVs.		£0.00	
Financial benefit of charging EVs with solar electricity versus the cost of petrol/diesel fuel to cover the same distance.		£75.71	
Total motor fuel savings: 1,194.1 miles charged by a total of 432.6 kWh.		**£237.41**	
Mix: Solar 129.7 kWh; Off-peak grid 302.9 kWh; Paid To Use grid 0.0 kWh.			