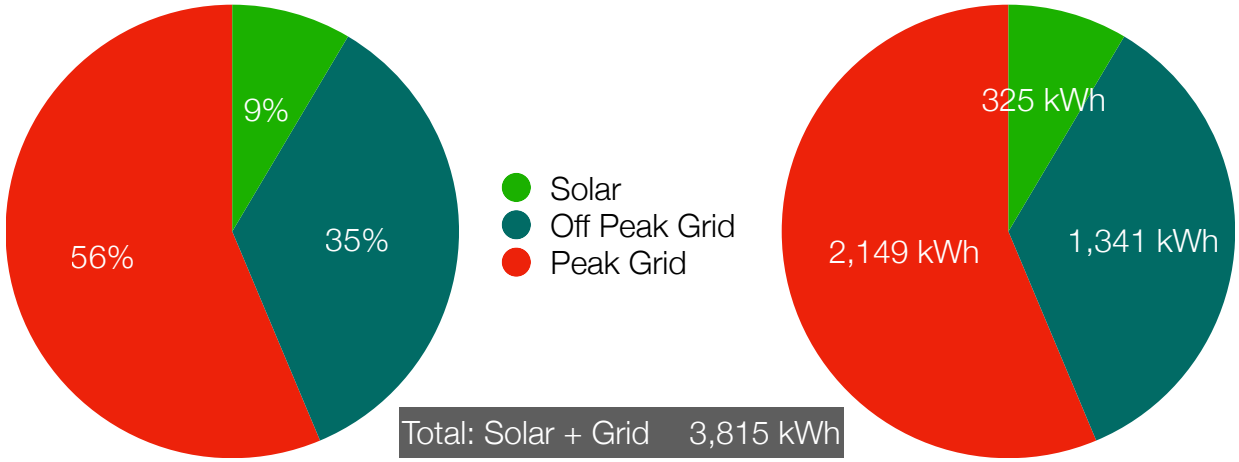
How to Electrify Your Life
Save Loads of Money
&
Save the Planet

MONTHLY REPORT

FEBRUARY 2022

Peak Grid	£321.96
Off Peak Grid	£73.74
Solar	£0.00
Total Energy Cost	**£395.70**
Standing Charge	£7.00
Total Electric Bill	**£402.70**
Avg Cost per kWh	**10.5545p**



Total: Solar + Grid 3,815 kWh

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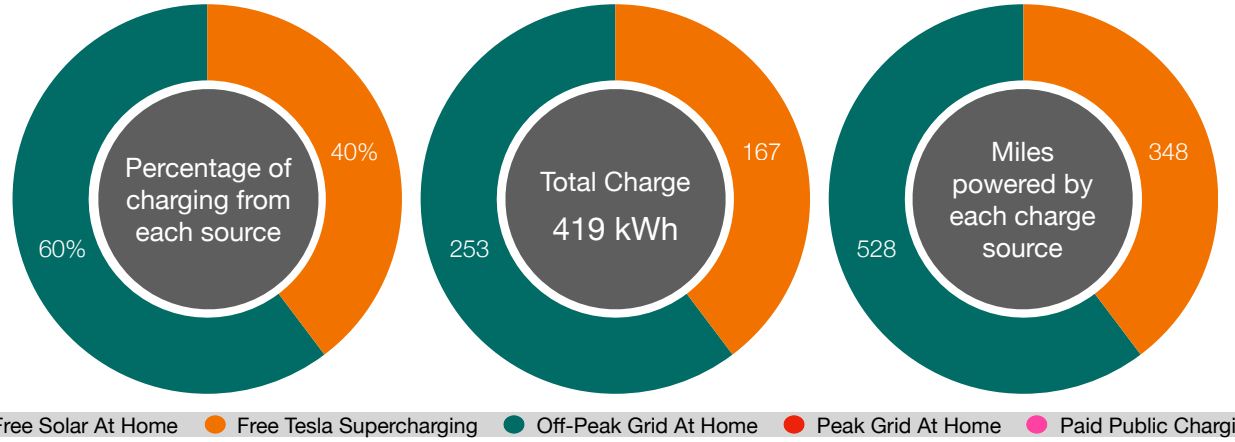
EV cost & carbon savings

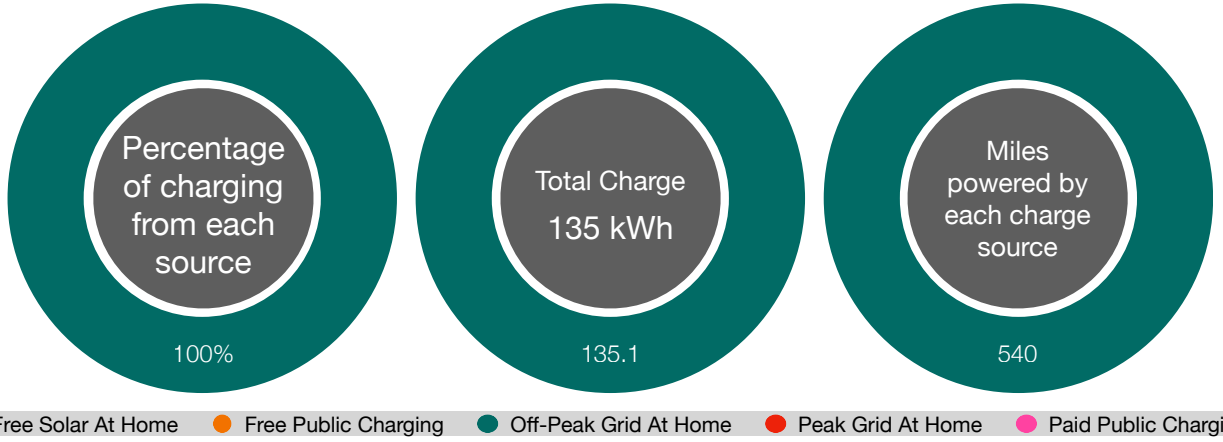
Tesla Model X: mileage, cost & carbon summary

Miles driven in this month	875.2
Total cost, using charging mix shown	£13.90
Electricity charging cost, pence per mile	1.59
Cost saved vs 35mpg car @ £1.479/litre	£157.52
CO2 saved vs UK ICE avg @ 124.1g/km	194 kg



Nissan Leaf: mileage, cost & carbon summary

Miles driven in this month	540.2
Total cost, using charging mix shown	£7.43
Electricity charging cost, pence per mile	1.38
Cost saved vs 45mpg car @ £1.510/litre	£75.36
CO2 saved vs UK ICE avg @ 124.1g/km	108 kg



Both cars: total mileage, cost & carbon

Miles driven in this month	1,415.4
Total cost, using charging mix shown	£21.33
Fuel cost, pence per mile	1.51
Cost saved vs ICE cars @ £1.510/litre	£232.88
CO2 saved vs ICE, total for both cars	302 kg

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ASHP cost & carbon savings

Air Source Heat Pump

kWh electricity input in month	1,988.8
kWh heat output in month	6,050.6
COP efficiency (heat ÷ electricity)	3.04
Average electricity cost per kWh, pence	10.5545p
Total ASHP electricity cost in month	£209.91
Heating oil for same output @ 9.8 kWh/l	617 litres
Cost of heating oil @ £0.530/litre	£327.23
Cost saved ASHP vs oil boiler	£117.32
CO2 saved vs oil boiler @ 2.96 kg/litre	1,869 kg

Whole system cost & carbon savings

Smart energy savings

kWh electricity consumed in month	3,815.41
kWh generated by on-site solar	325.41
kWh imported from grid	3,490.00
Total grid electricity cost	£395.70
Electricity @ price cap rate: 27.25p/kWh	£1,039.70
CO2: electricity @ UK grid avg: 181g/kWh	691 kg
Cost saved vs standard rate electricity	£644.00
CO2 saved by 100% renewable electricity	691 kg

Summary overview savings, incentives, and carbon reduction in month

Total energy cost in month for all uses, including electricity standing charge	£402.70	
Cost saving: standard rate electricity not purchased		£1,039.70
Cost saving: boiler heating oil, for same heat output, not purchased		£327.23
Cost saving: EV driving vs same mileage in ICE cars, fuel not purchased		£270.81
Total energy cost savings		**£1,637.74**
Incentive: Feed In Tariff for Solar Generation		£21.90
Incentive: Renewable Heat Initiative for Air Source Heat Pump		£124.32
Total incentives		**£146.22**
Combined Savings and Incentives		**£1,783.96**
MINUS total energy cost in month for all uses, including electricity standing charge	-£402.70	
Overall net benefit = Combined Savings + Incentives - Energy Cost		**£1,381.26**
Total CO2 saved: {(100% renewable electricity vs UK grid avg) + (EVs vs ICE) + (ASHP vs oil boiler)}		2.862 tonnes

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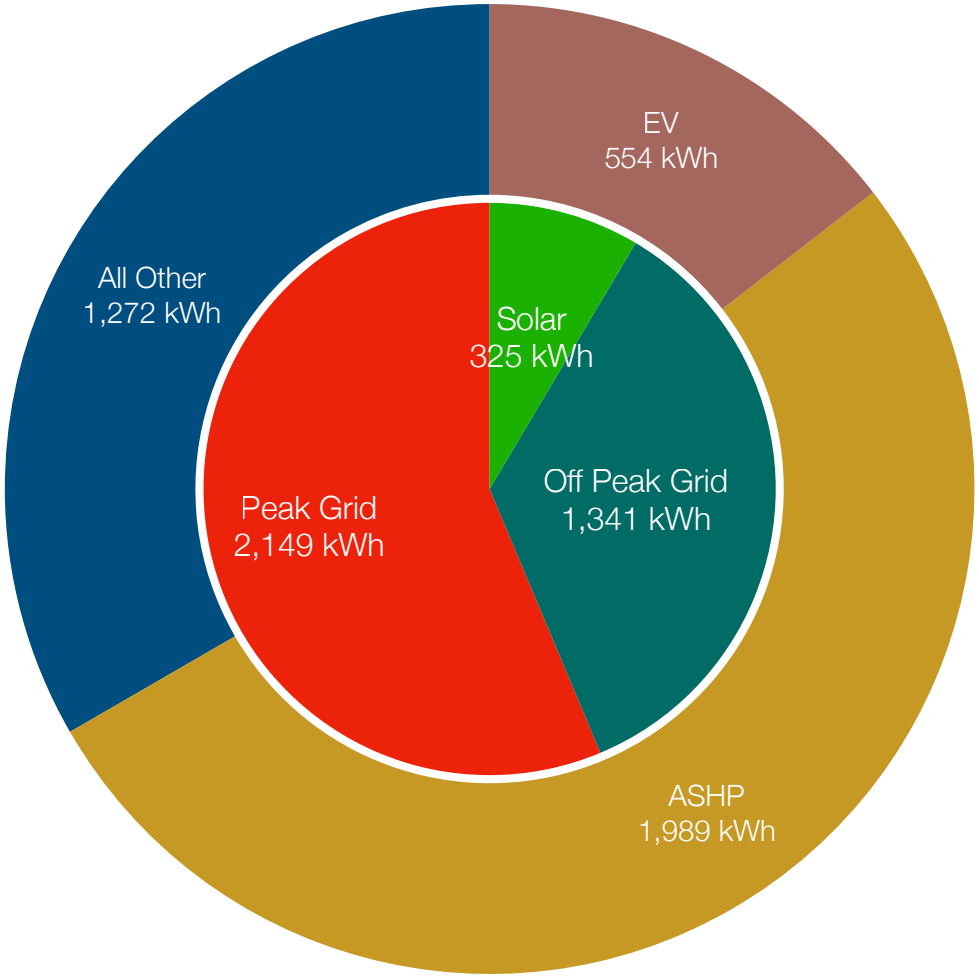
Energy Sources and Energy Destinations : Overview

Inner Circle

Total Electricity Input

Split by Energy Source

3,815 kWh



Outer Circle

Total Electricity Usage

Split By Energy Destination

3,815 kWh

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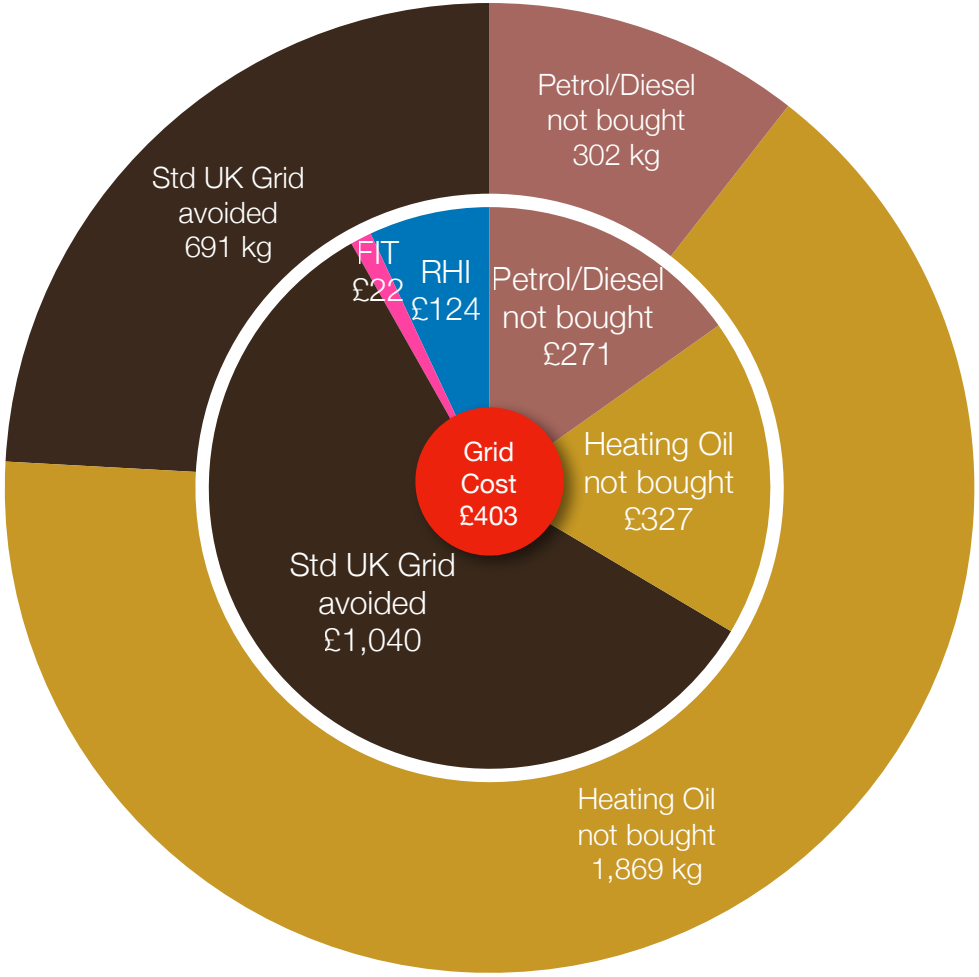
CO_2 Emissions Reductions and Cash Savings/Benefits

Inner Circle

Cash Savings & Incentives

Split by Source of Benefit

£1,783.96



Outer Circle

Total CO_2 Reductions

Split by Energy Use

2.862 tonnes

Net Financial Benefit *Definition*		Net Financial Benefit *Result*	
Total	Middle Circle Benefits	Whole Month	£1,381.26
Minus	Grid Cost Bullseye	Per Day	£49.33

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