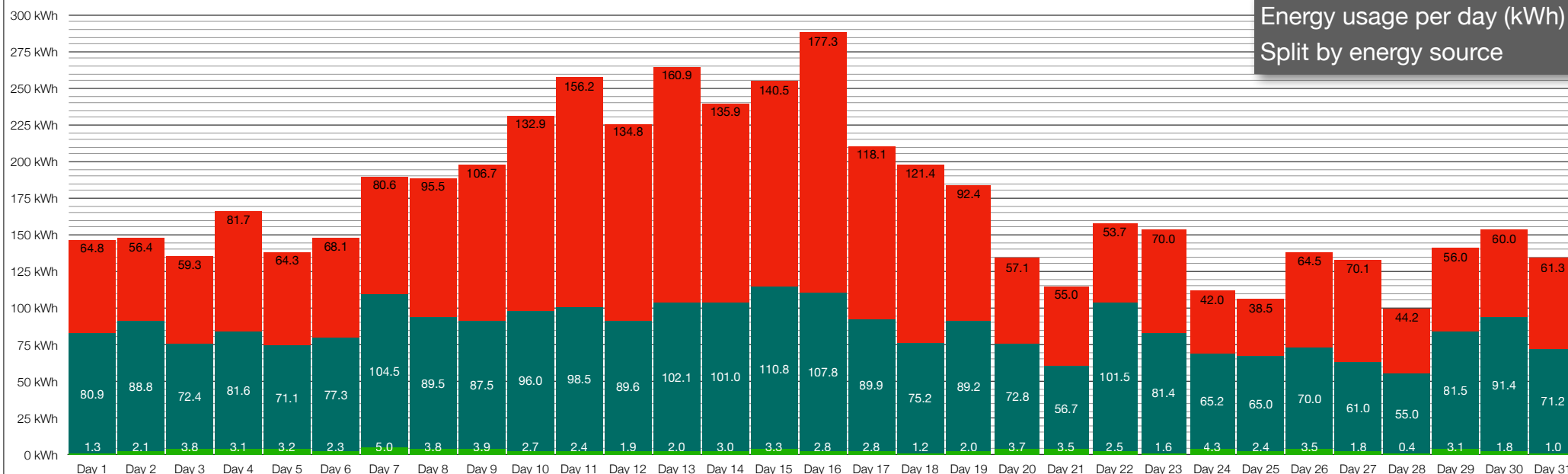




Energy usage per day (kWh)  
Split by energy source



Peak	£407.51
Off Peak	£142.25
Solar	£0.00

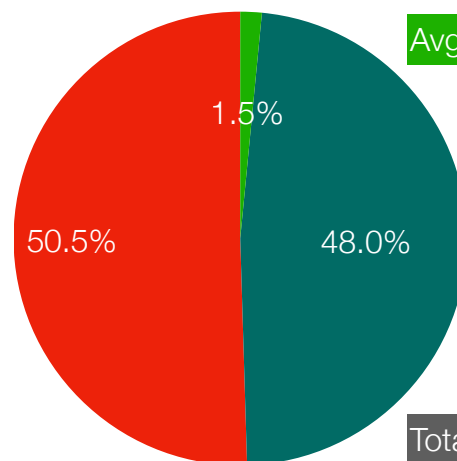
Total Energy Cost £549.75

Standing Charge £7.75

Total Electric Bill £557.50

Avg Cost per kWh 10.3455p

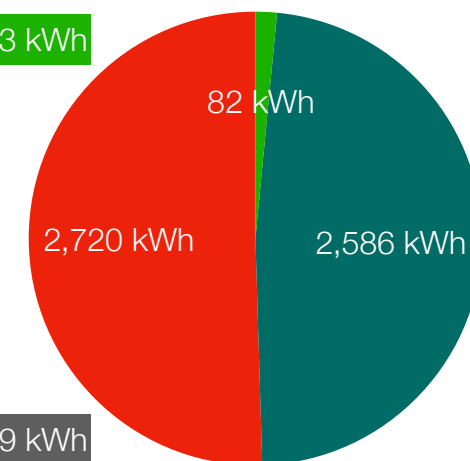
Avg Cost per Day £17.98



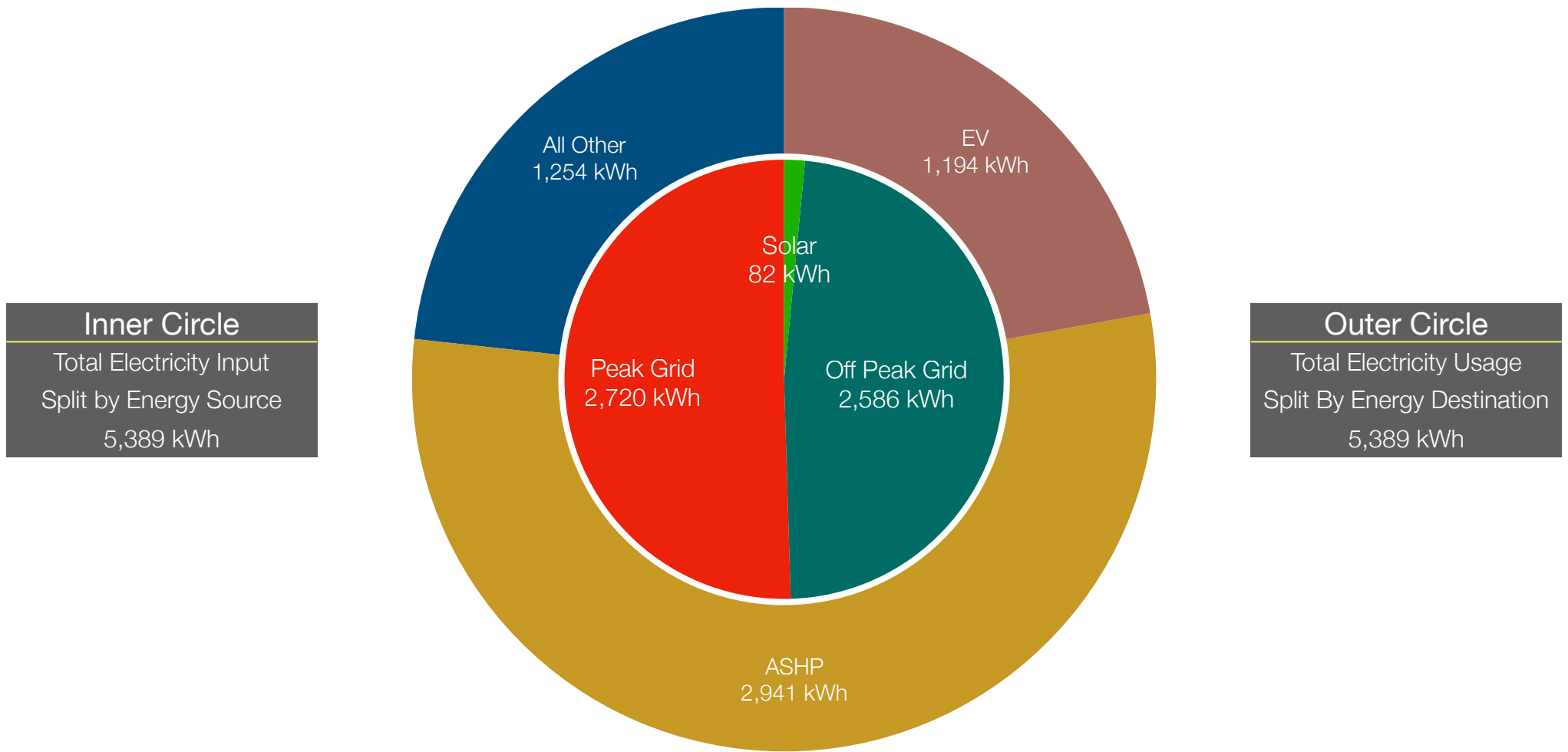
Avg solar per day 3 kWh

- Solar
- Off Peak Grid
- Peak Grid

Total: Solar + Grid 5,389 kWh

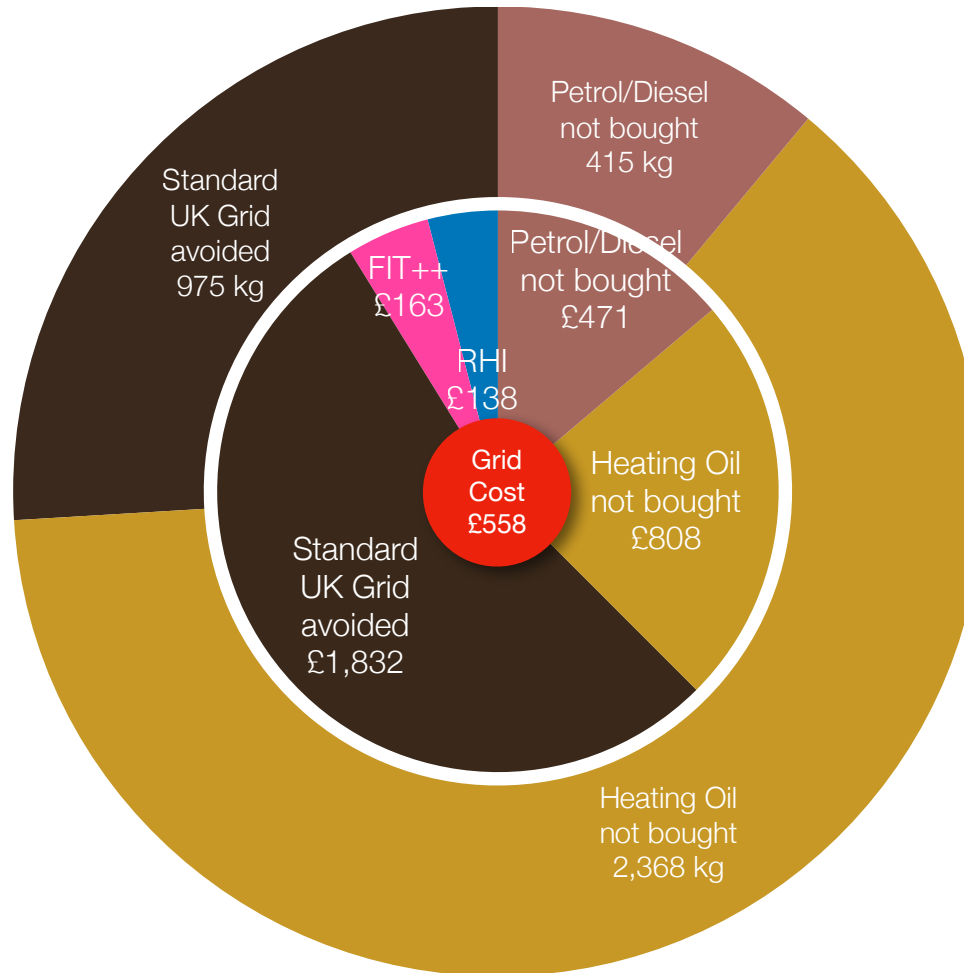


## Energy Sources and Energy Destinations : Overview



## CO<sub>2</sub> Emissions Reductions and Cash Savings/Incentives

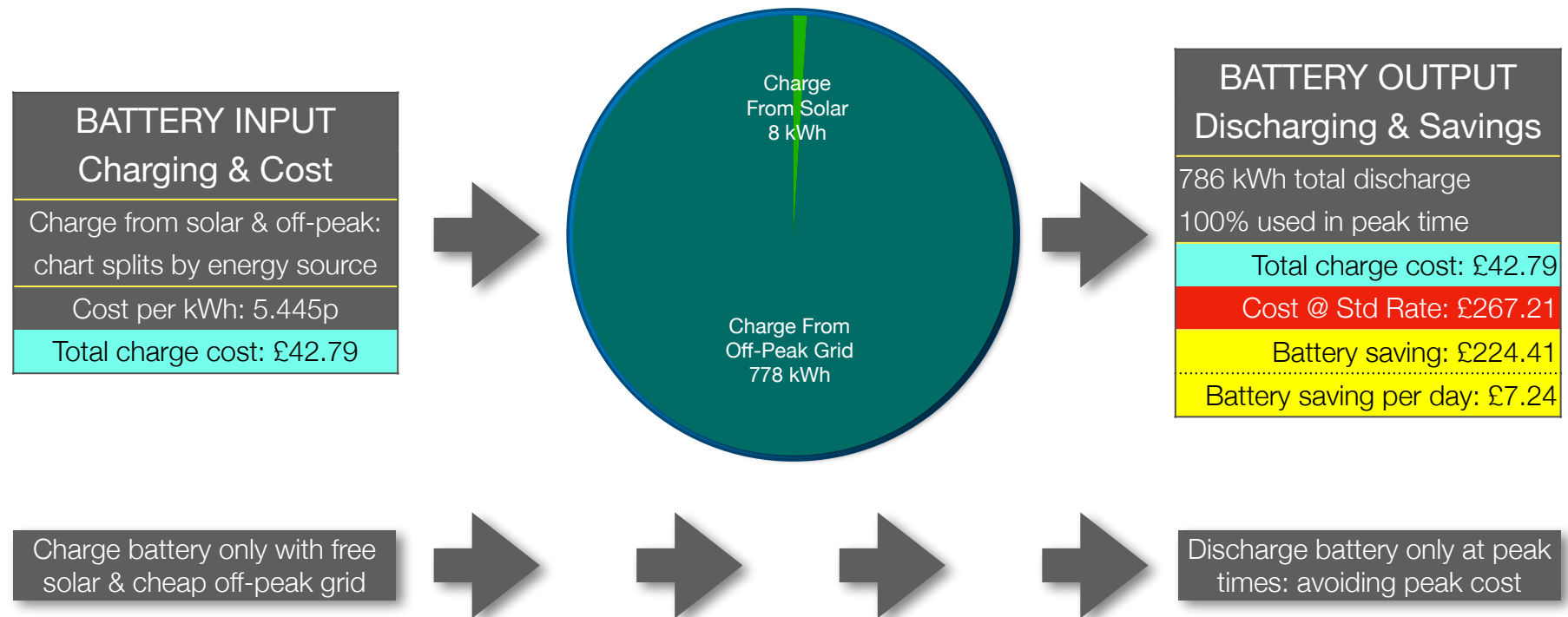
Inner Circle
Cash Savings & Incentives Split by Source of Benefit
£3,411.63



Outer Circle
Total CO <sub>2</sub> Reductions Split by Energy Use
3,758 tonnes

Net Financial Benefit <i>Definition</i>		Net Financial Benefit <i>Result</i>	
<i>Total</i>	Middle Circle Benefits	Whole Month	£2,854.13
<i>Minus</i>	Grid Cost Bullseye	Per Day	£92.07

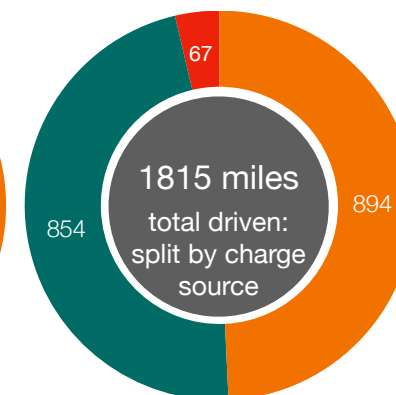
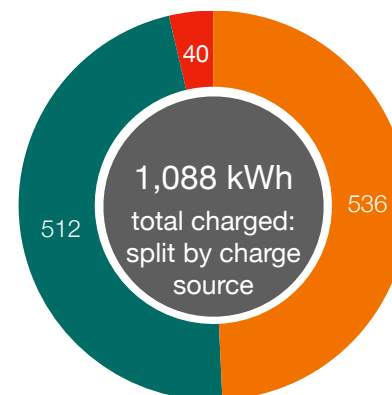
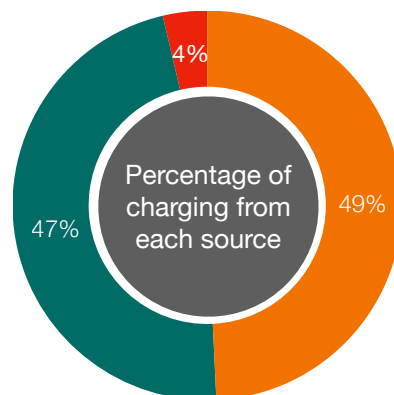
## Savings from battery by time-shifting consumption



## EV cost & carbon savings

### Tesla Model X: mileage, cost & carbon summary

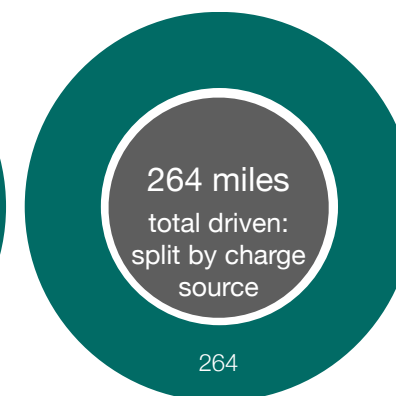
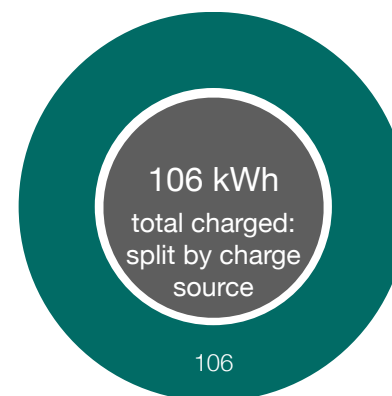
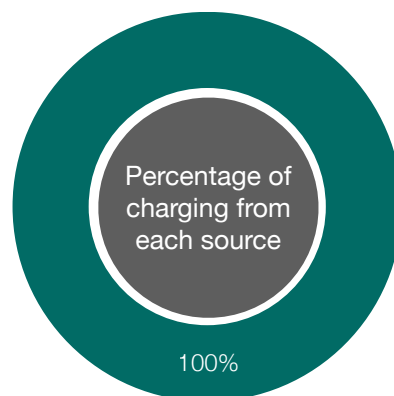
Miles driven in this month	1,815.0
Total cost, using charging mix shown	£34.16
Electricity charging cost, pence per mile	1.8823p
Cost saved vs 35mpg car @ £1.80/litre	£389.38
CO2 saved vs UK ICE avg @ 124.1g/km	363 kg



Free Solar At Home Free Tesla Supercharging Off-Peak Grid At Home Peak Grid At Home Paid Public Charging

### Nissan Leaf: mileage, cost & carbon summary

Miles driven in this month	264.0
Total cost, using charging mix shown	£5.81
Electricity charging cost, pence per mile	2.2008p
Cost saved vs 45mpg car @ £1.80/litre	£42.11
CO2 saved vs UK ICE avg @ 124.1g/km	53 kg



Free Solar At Home Free Public Charging Off-Peak Grid At Home Peak Grid At Home Paid Public Charging

### Both cars: total mileage, cost & carbon

Miles driven in this month	2,079.0
Total cost, using charging mix shown	£39.97
Fuel cost, pence per mile	1.9227p
Cost saved vs ICE cars @ £1.80/litre	£431.48
CO2 saved vs ICE, total for both cars	415 kg

## ASHP cost & carbon savings

### Air Source Heat Pump

kWh electricity input in month	2,941 kWh
kWh heat output in month	7,839 kWh
COP efficiency (heat ÷ electricity)	2.67
Average electricity cost per kWh, pence	10.3455p
Total ASHP electricity cost in month	£304.26
Heating oil for same output @ 9.8 kWh/l	800 litres
Cost of heating oil @ £1.01/litre	£807.90

Cost saved ASHP vs oil boiler	£503.63
CO2 saved vs oil boiler @ 2.96 kg/litre	2,368 kg

## Whole system cost & carbon savings

### Smart energy savings

kWh electricity consumed in month	5,388.82
kWh generated by on-site solar	82.20
kWh imported from grid	5,306.62
Total grid electricity cost	£549.75

Electricity @ price cap rate: 27.25p/kWh	£1,468.45
CO2: electricity @ UK grid avg: 181g/kWh	975 kg

Cost saved vs standard rate electricity	£918.70
CO2 saved by 100% renewable electricity	975 kg

### Summary overview savings, incentives, and carbon reduction in month

Total energy cost in month for all uses, including electricity standing charge	£557.50
Cost Avoided: standard rate electricity not purchased	£1,831.79
Cost Avoided: boiler heating oil for same heat output not purchased	£807.90
Cost Avoided: petrol/diesel for same mileage in ICE cars not purchased	£471.46
Total energy cost savings	£3,111.14
Incentive: Feed In Tariff for Solar Generation (+£2.19/day HMG subsidy + DFS: 01/10 – 31/12/2022)	£162.85
Incentive: Renewable Heat Initiative for Air Source Heat Pump	£137.64
Total incentives	£300.49
Combined Savings and Incentives	£3,411.63
MINUS total energy cost in month for all uses, including electricity standing charge	-£557.50
Overall net benefit = {(Combined Savings + Incentives) – (Energy Cost)}	£2,854.13
Total CO2 saved: {(100% renewable electricity vs UK grid avg) + (EVs vs ICE) + (ASHP vs oil boiler)}	3.758 tonnes