

How to Electrify Your Life, Save Loads of Money, and Save the Planet

PERFORMANCE REPORT: 2022 YEAR TO DATE

<https://electrifylife.co.uk>

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Savings versus cost of heating oil and petrol use the typical local price per litre of those fuels in each monthly monitoring period.

Grid electricity cost reflects our current Octopus Go Faster tariff:

5 hours off-peak @ 5.5p/kWh including VAT

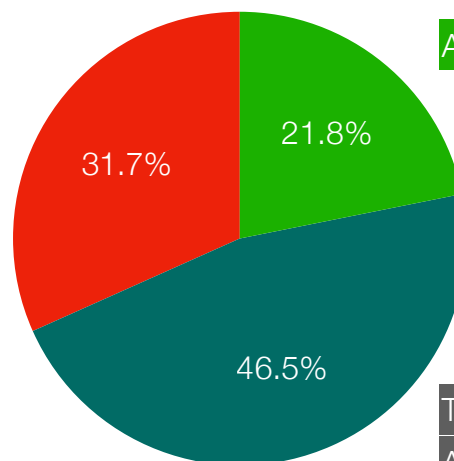
19 hours peak @ 14.98p/kWh including VAT

Standing Charge @ 25p/day including VAT
100% renewable; no offsetting.

Cash savings vs standard rate electricity use
Price Cap rate of 27.5p/kWh (34p from Oct).

Carbon savings versus standard rate
electricity use UK grid average of 181g/kWh

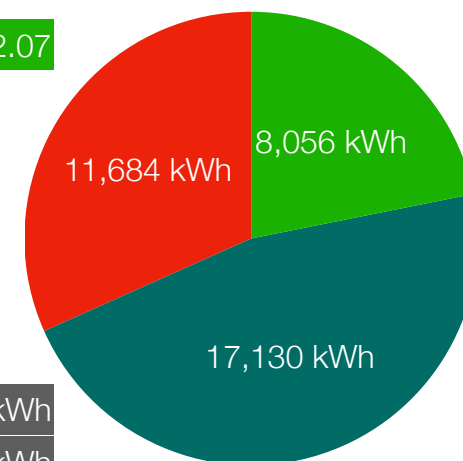
Peak Grid	£1,750.34
Off Peak Grid	£942.17
Solar	£0.00
Total Energy Cost	£2,692.51
Standing Charge	£91.25
VAT @ 5%	£139.19
Total Energy Bill (gross)	£2,922.95
Avg Cost per kWh (gross)	7.9275p
Avg Cost per day (gross)	£8.01
Total Incentives received	£2,199.94
Net Energy Cost (net of incentives)	£723.01
Avg cost per kWh (net)	1.9609p
Avg cost per day (net)	£1.98



Avg solar per day (kWh) 22.07

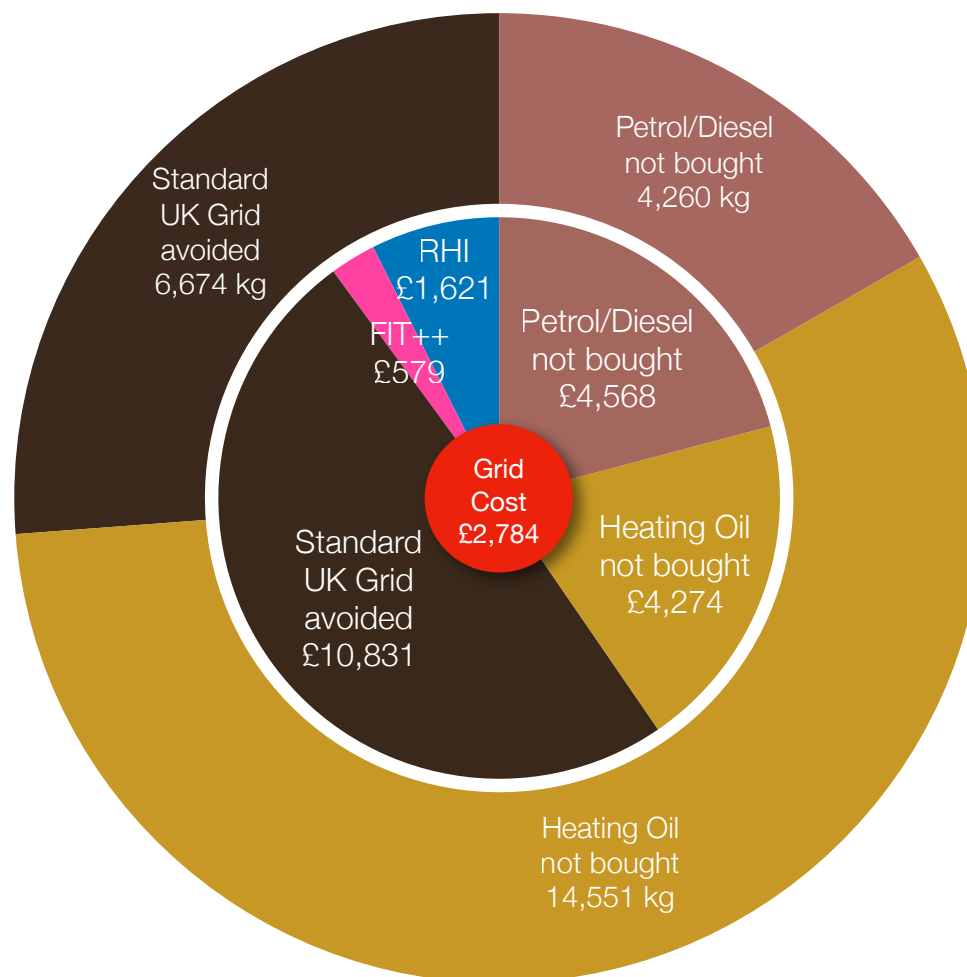
- Solar
- Off Peak Grid
- Peak Grid

Total: Solar + Grid 36,871 kWh
Average per day 101 kWh



CO₂ Emissions Reductions and Cash Savings/Incentives

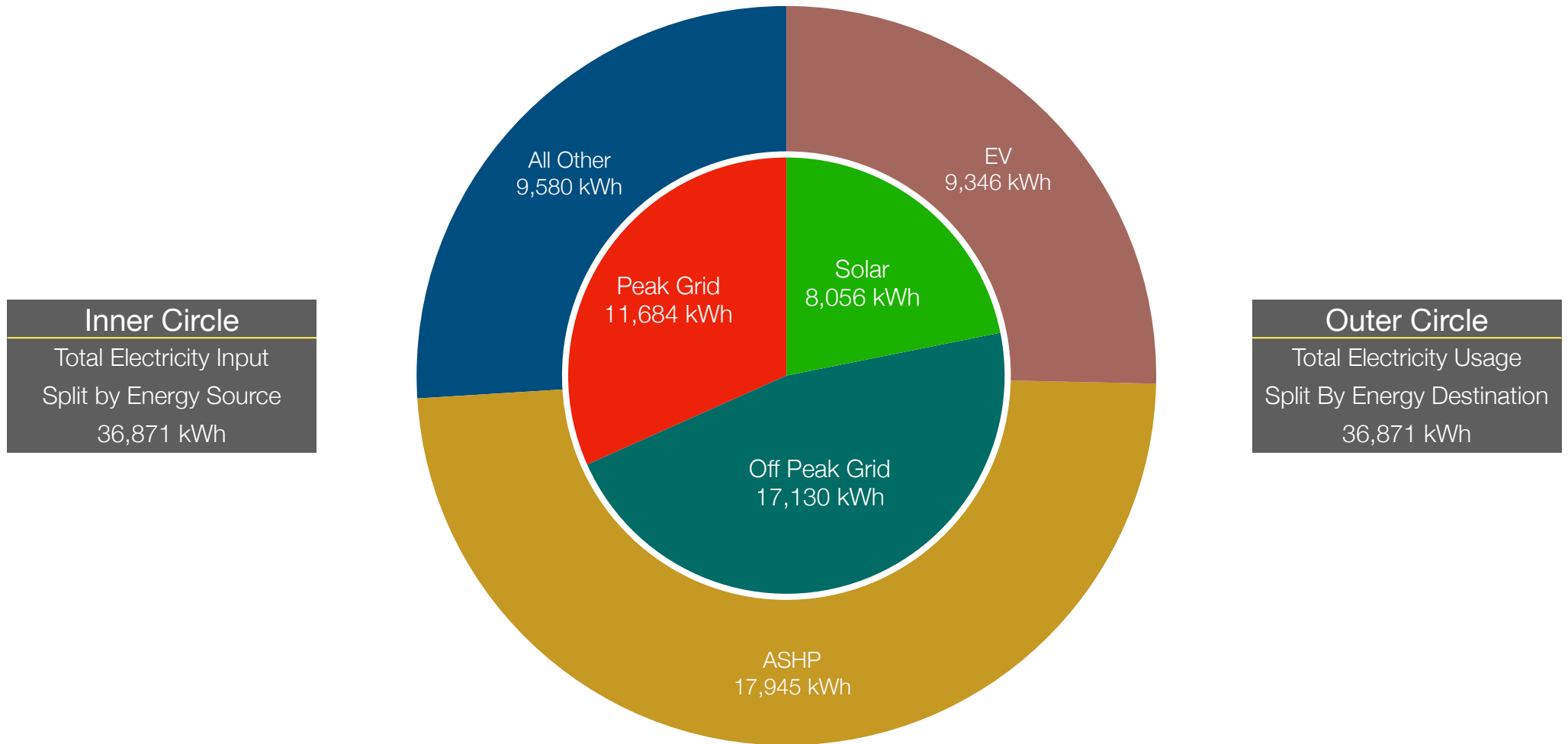
Middle Circle
Costs Avoided & Incentives Split by Source of Benefit
£21,873.21



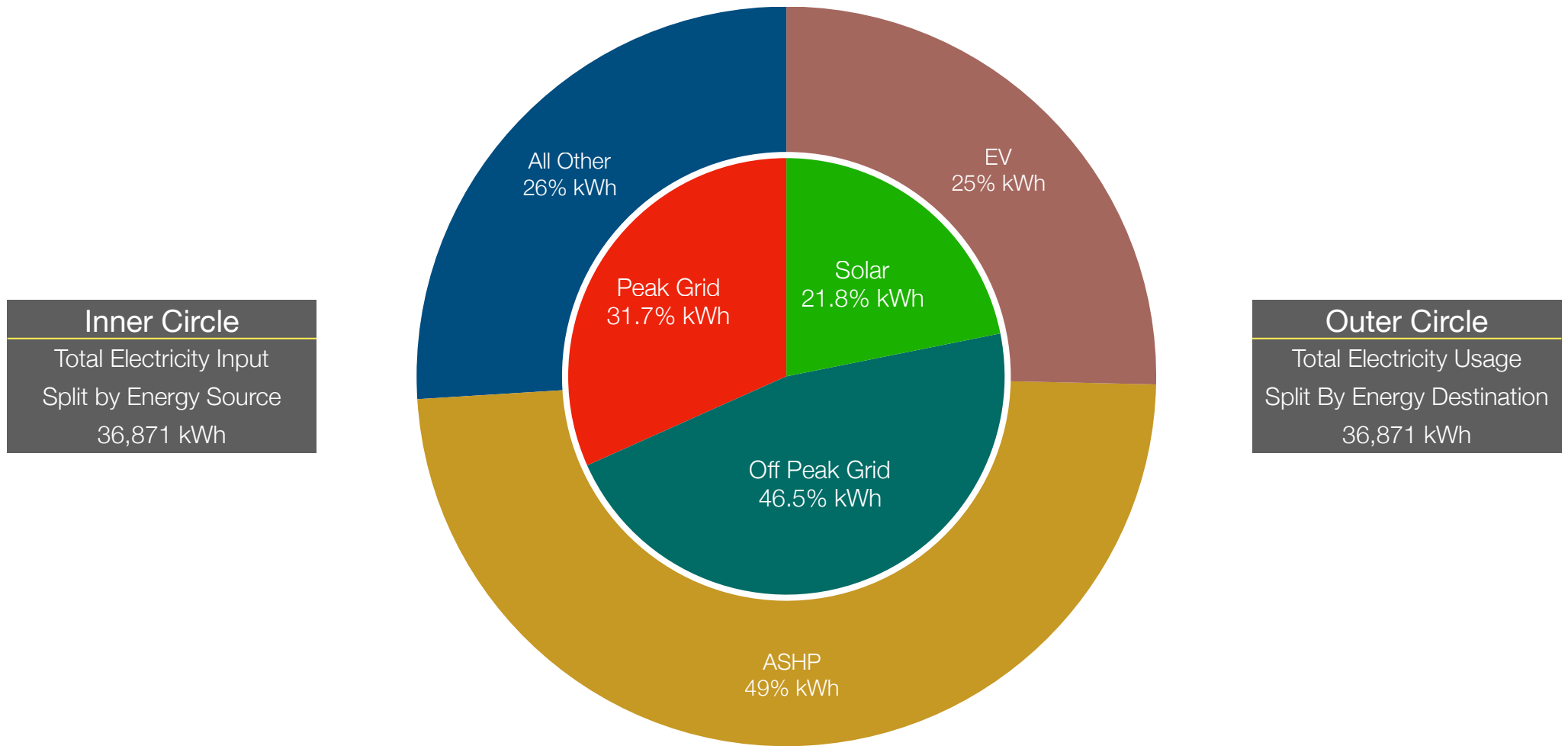
Outer Circle
Total CO ₂ Reductions Split by Energy Use
25.484 tonnes

Net Financial Benefit <i>Definition</i>		Net Financial Benefit <i>Result</i>	
<i>Total</i>	Middle Circle Benefits	Year to Date	£19,089.45
<i>Minus</i>	Grid Cost Bullseye	Per Day	£52.30

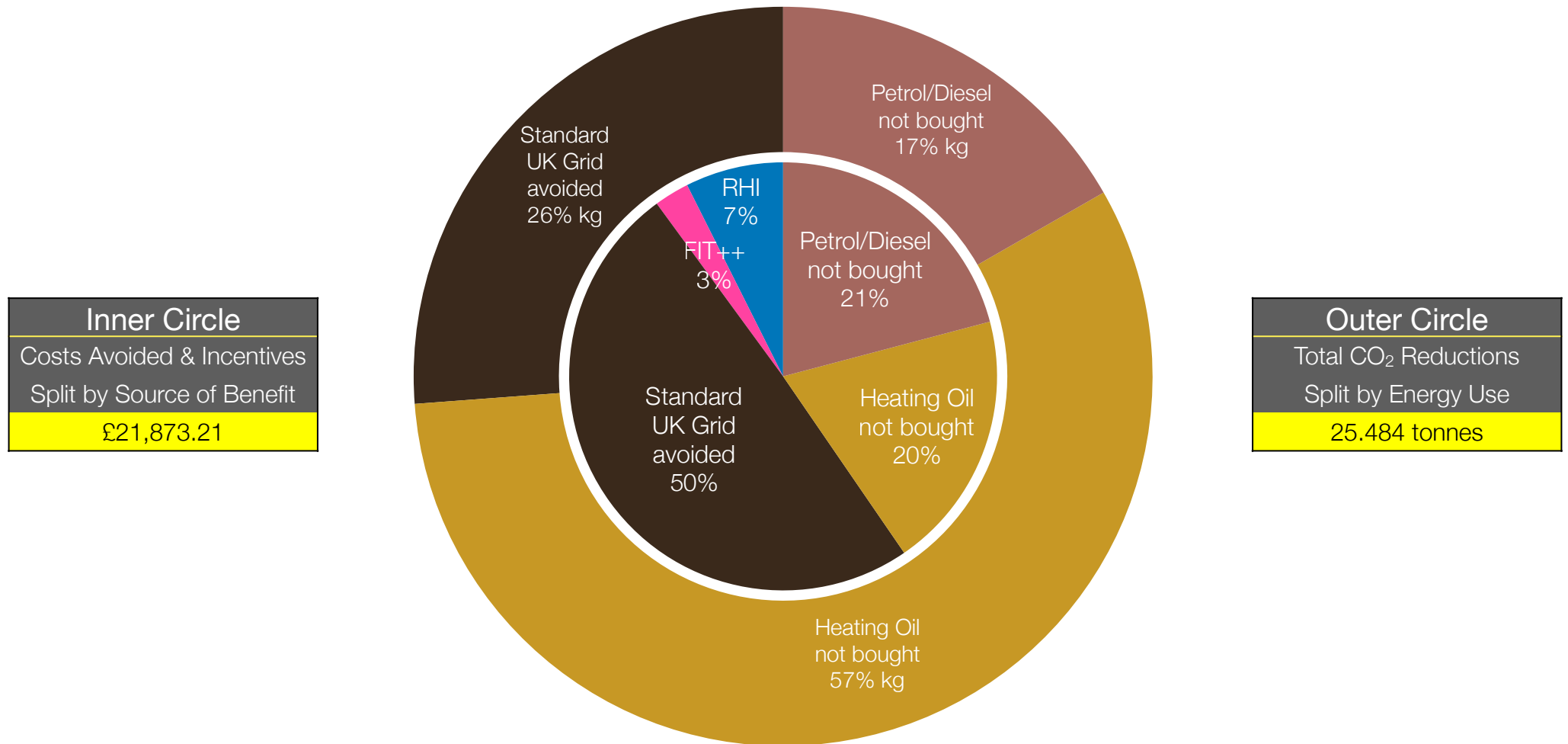
Energy Sources & Energy Destinations : Overview

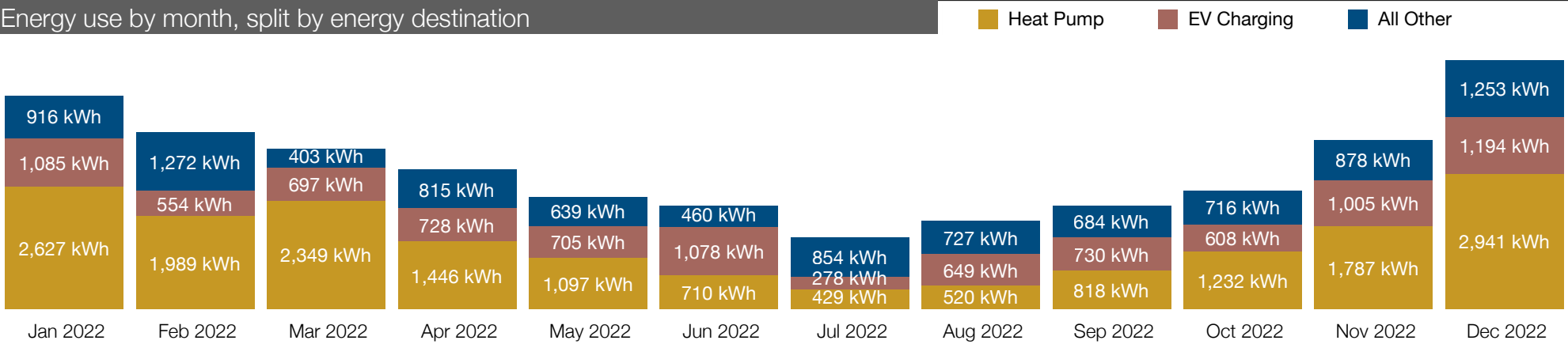
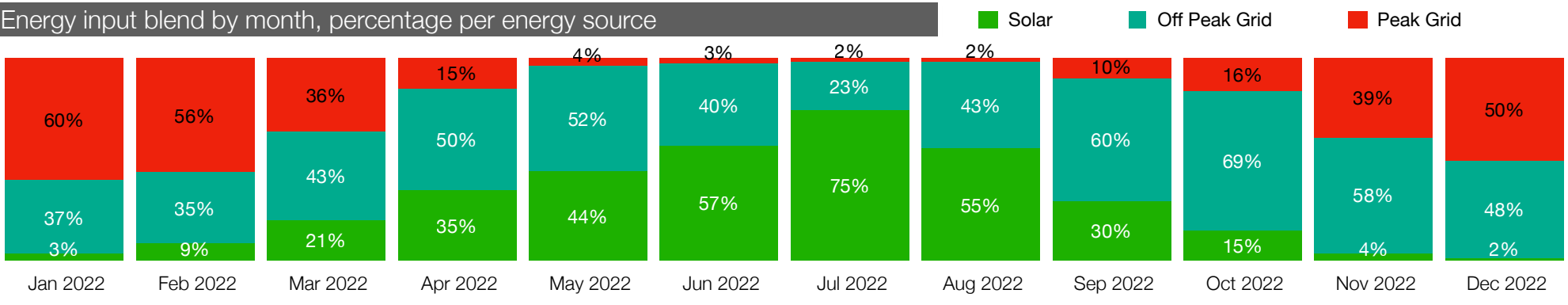
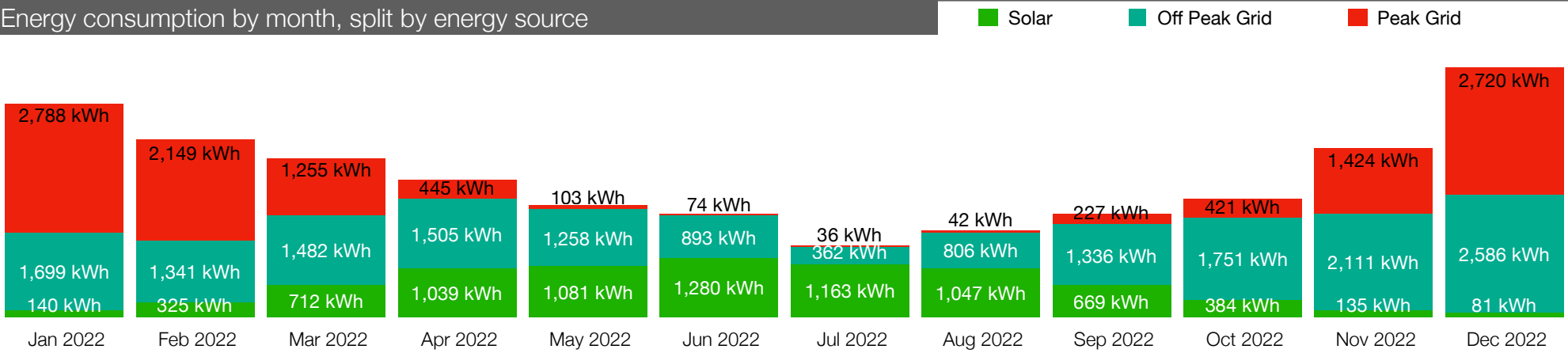


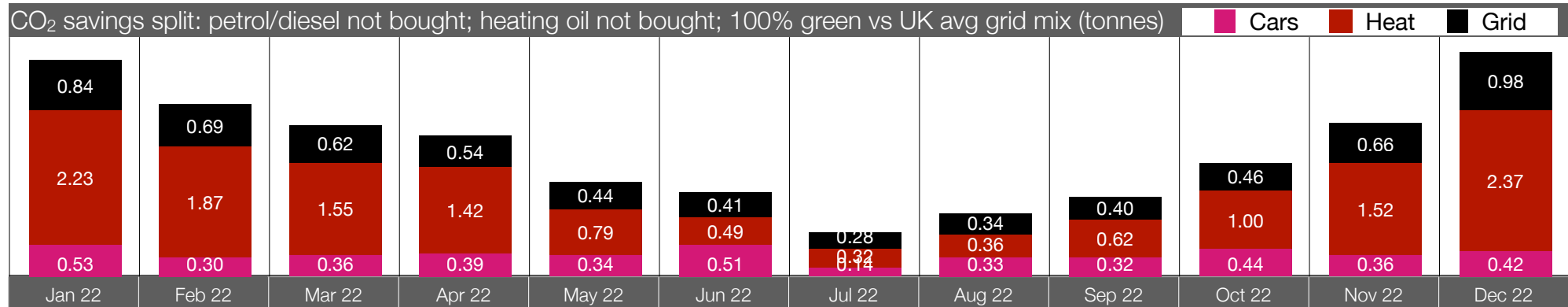
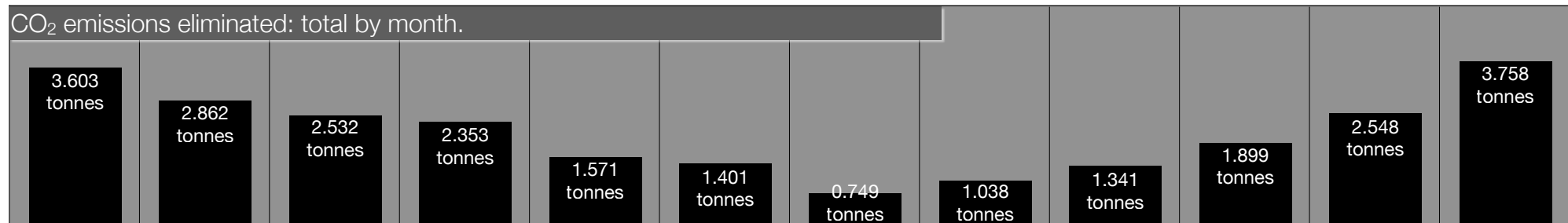
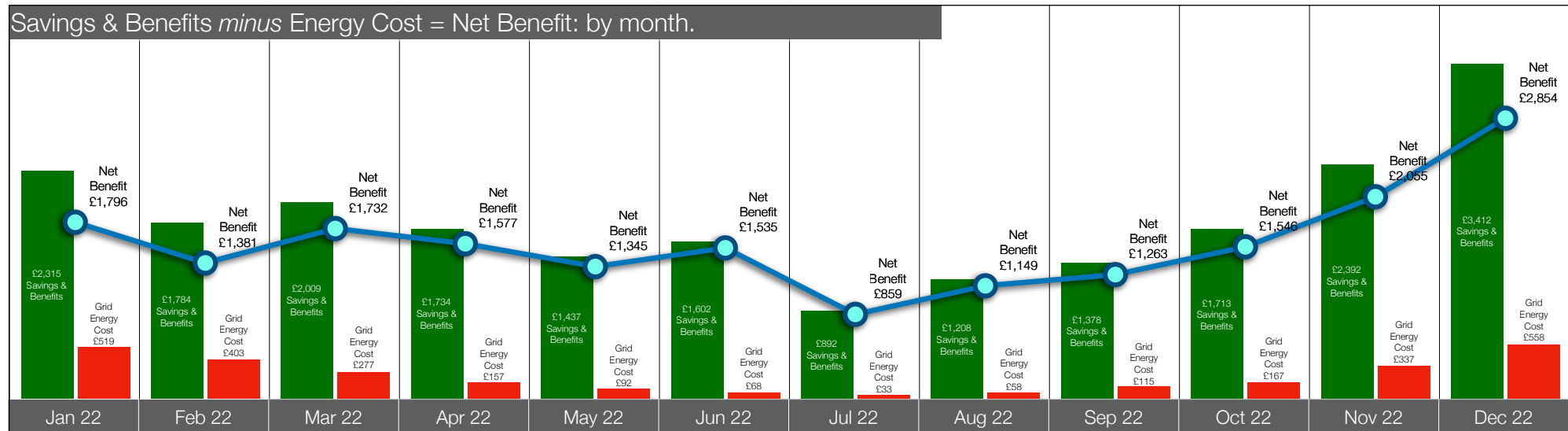
Energy Sources & Energy Destinations : Overview %

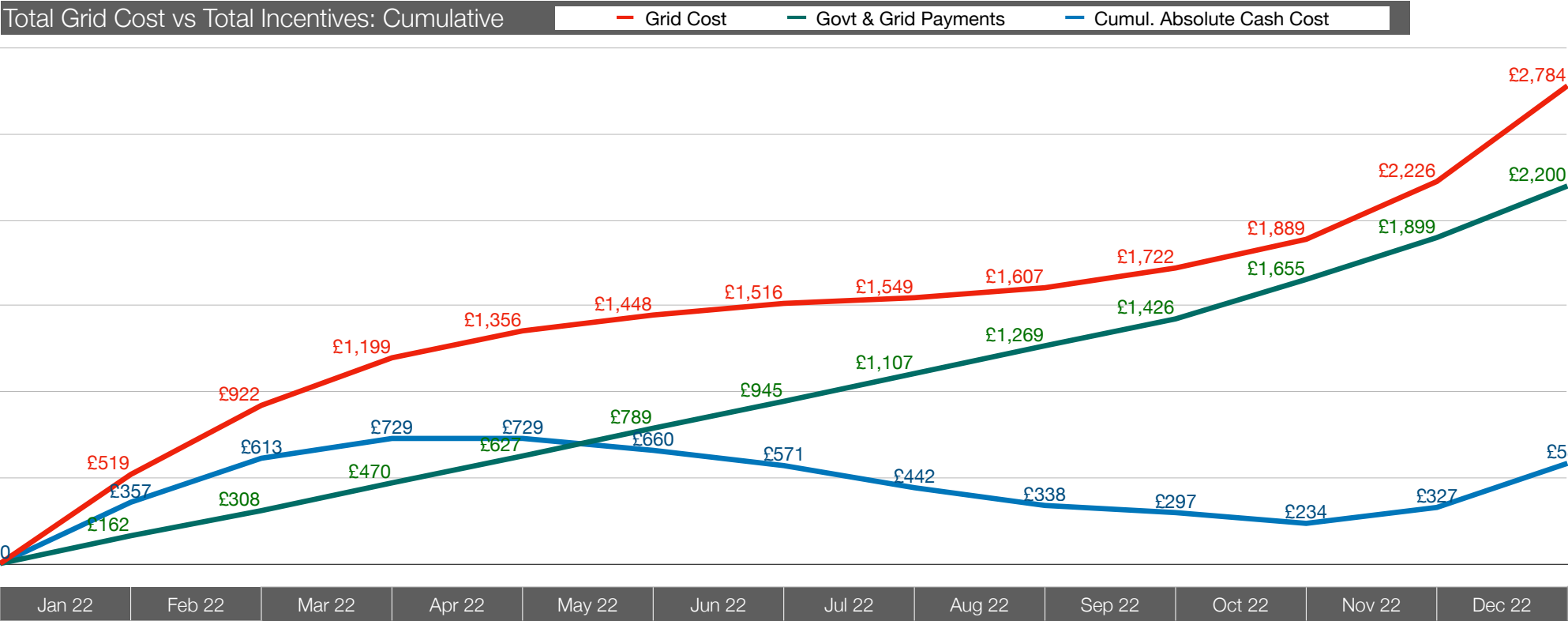
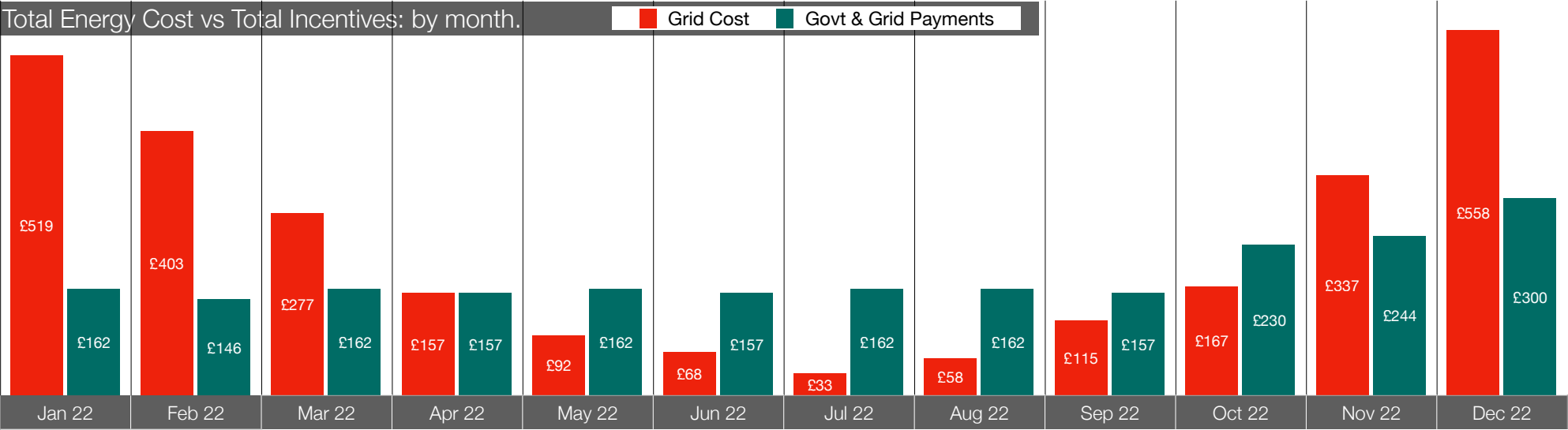


CO₂ Emissions Reductions & Cash Savings/Incentives %

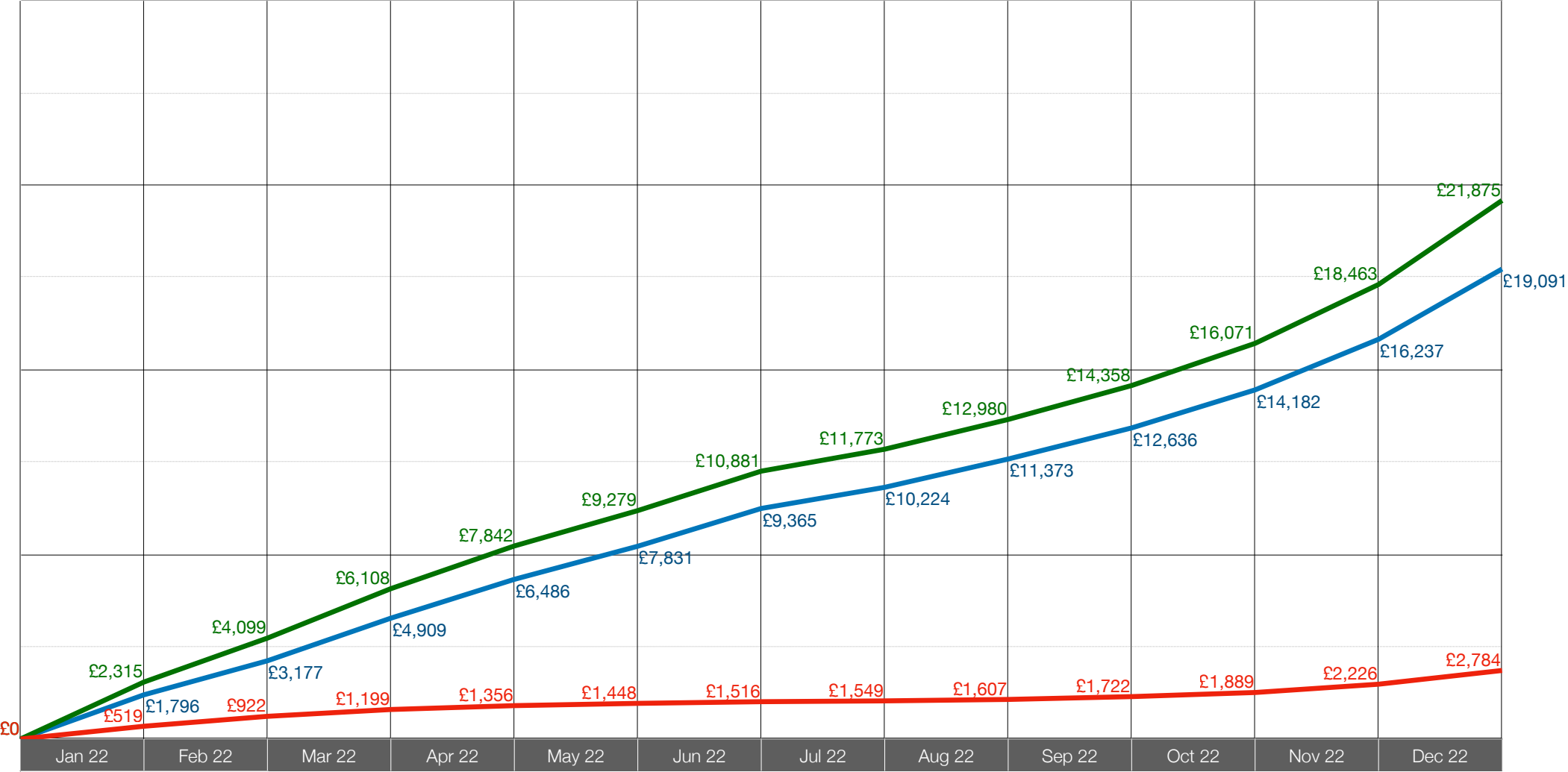




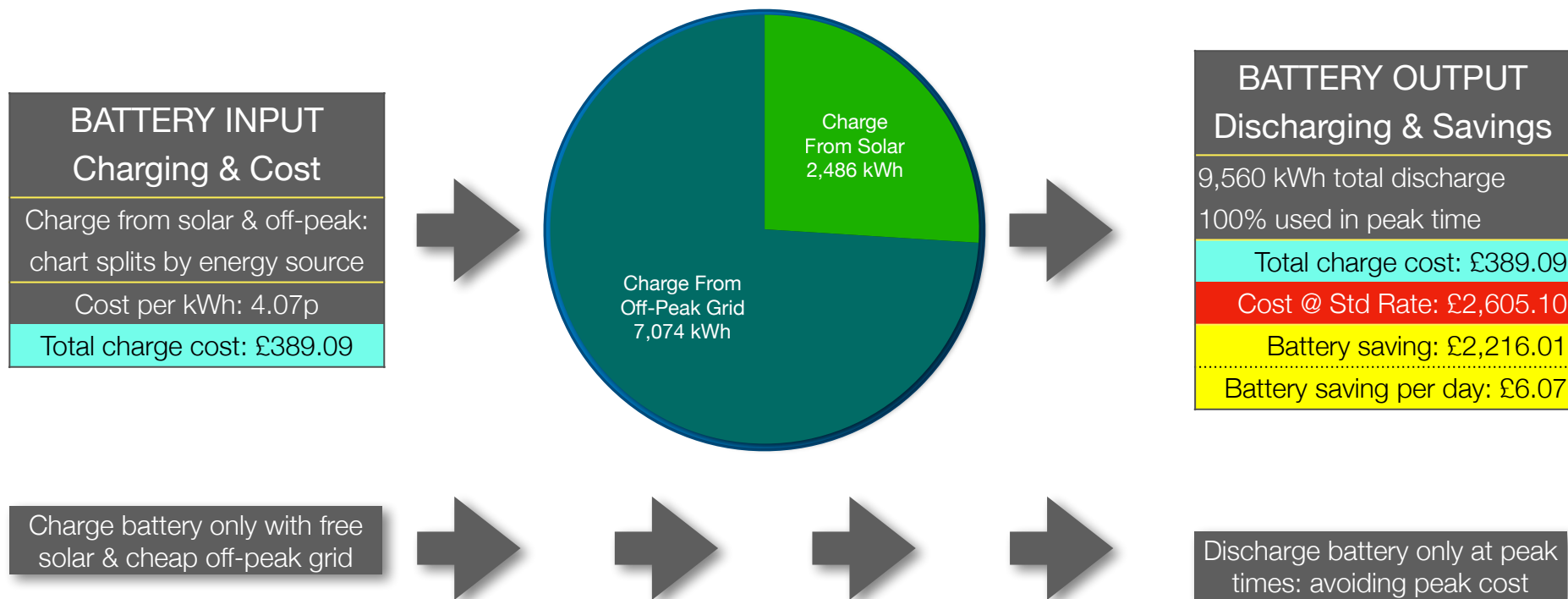




Total Grid Cost vs Total Savings & Incentives: Cumulative



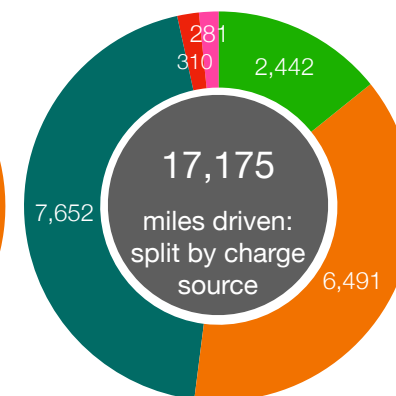
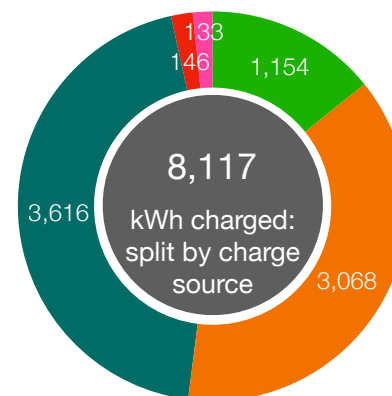
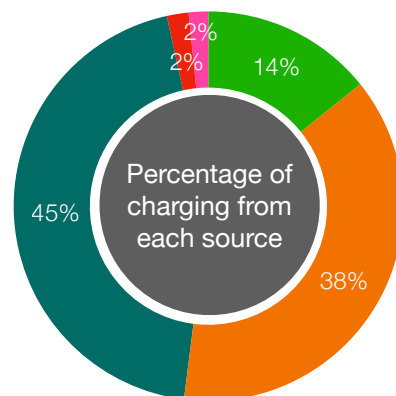
Savings from battery by time-shifting consumption



EV cost & carbon savings

Tesla Model X: mileage, cost & carbon summary

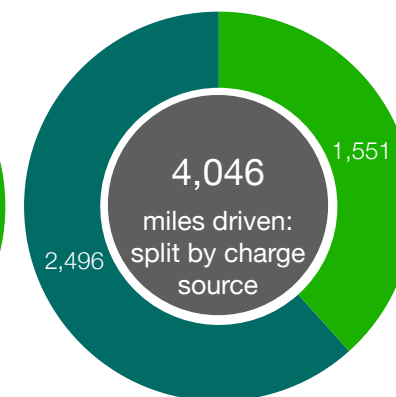
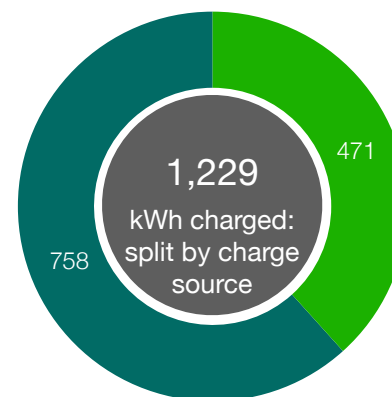
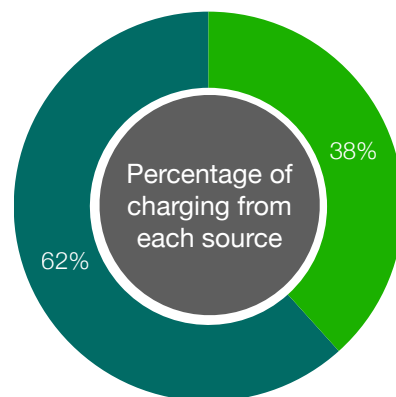
Miles driven in period	17,175.1
Total cost, using charging mix shown	£245.23
Electricity charging cost, pence per mile	1.4278p
Cost saved vs 35mpg car @ £1.72/litre	£3,588.60
CO2 saved vs UK ICE avg @ 124.1g/km	3,451 kg



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

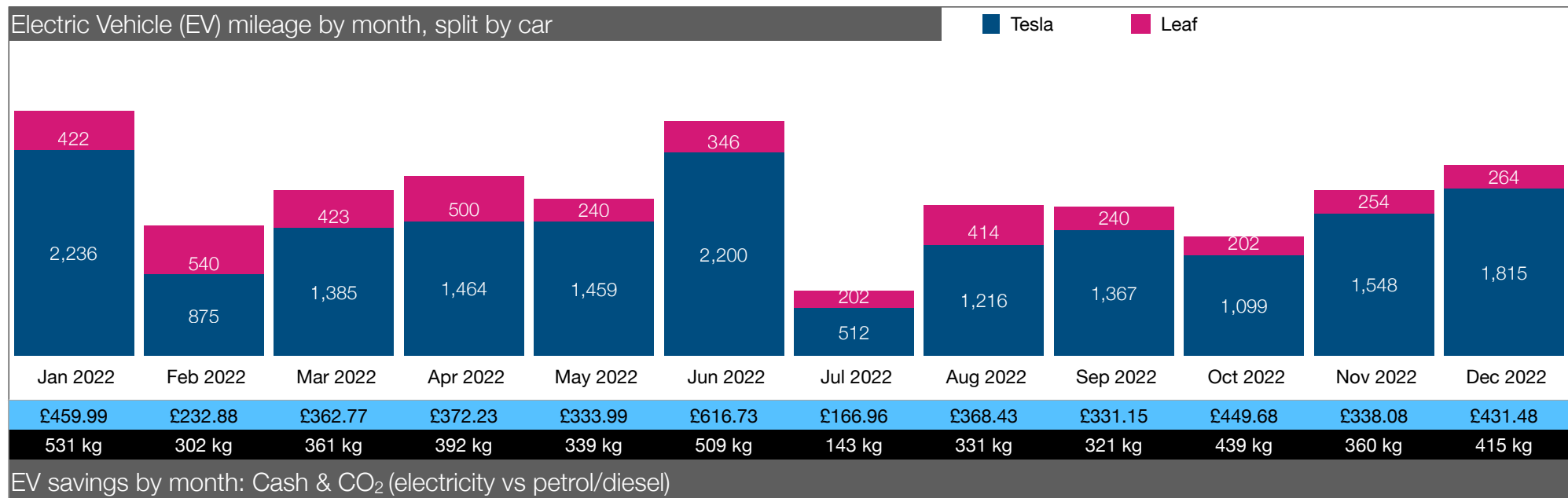
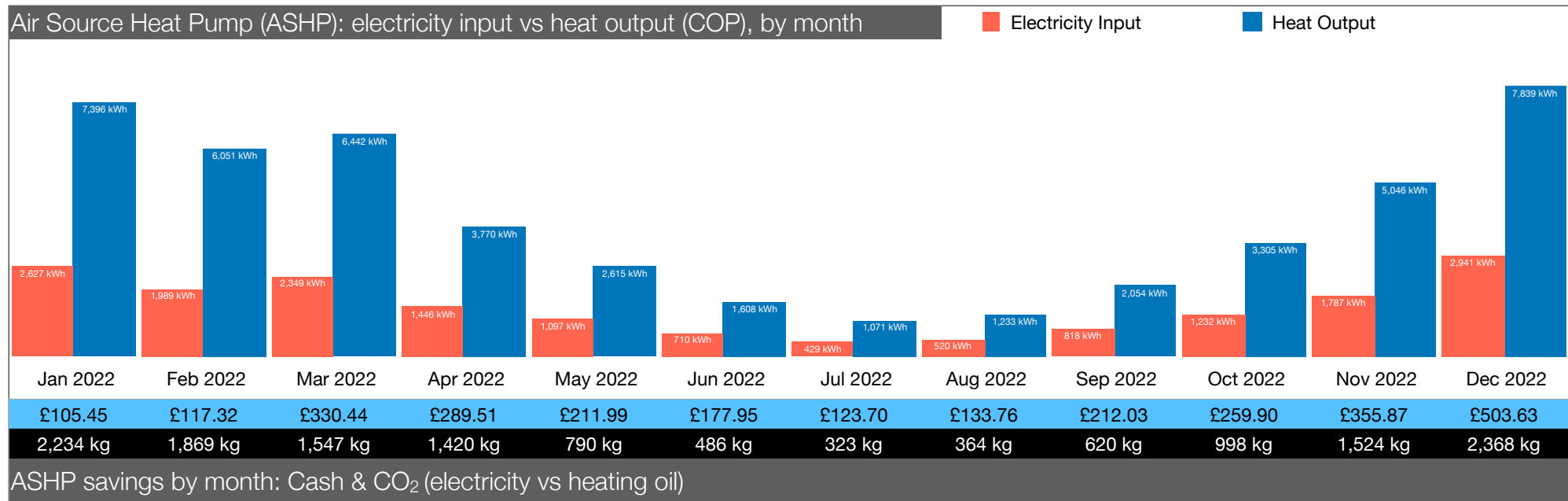
Miles driven in period	4,046.4
Total cost, using charging mix shown	£41.67
Electricity charging cost, pence per mile	1.0299p
Cost saved vs 45mpg car @ £1.72/litre	£458.00
CO2 saved vs UK ICE avg @ 124.1g/km	808 kg



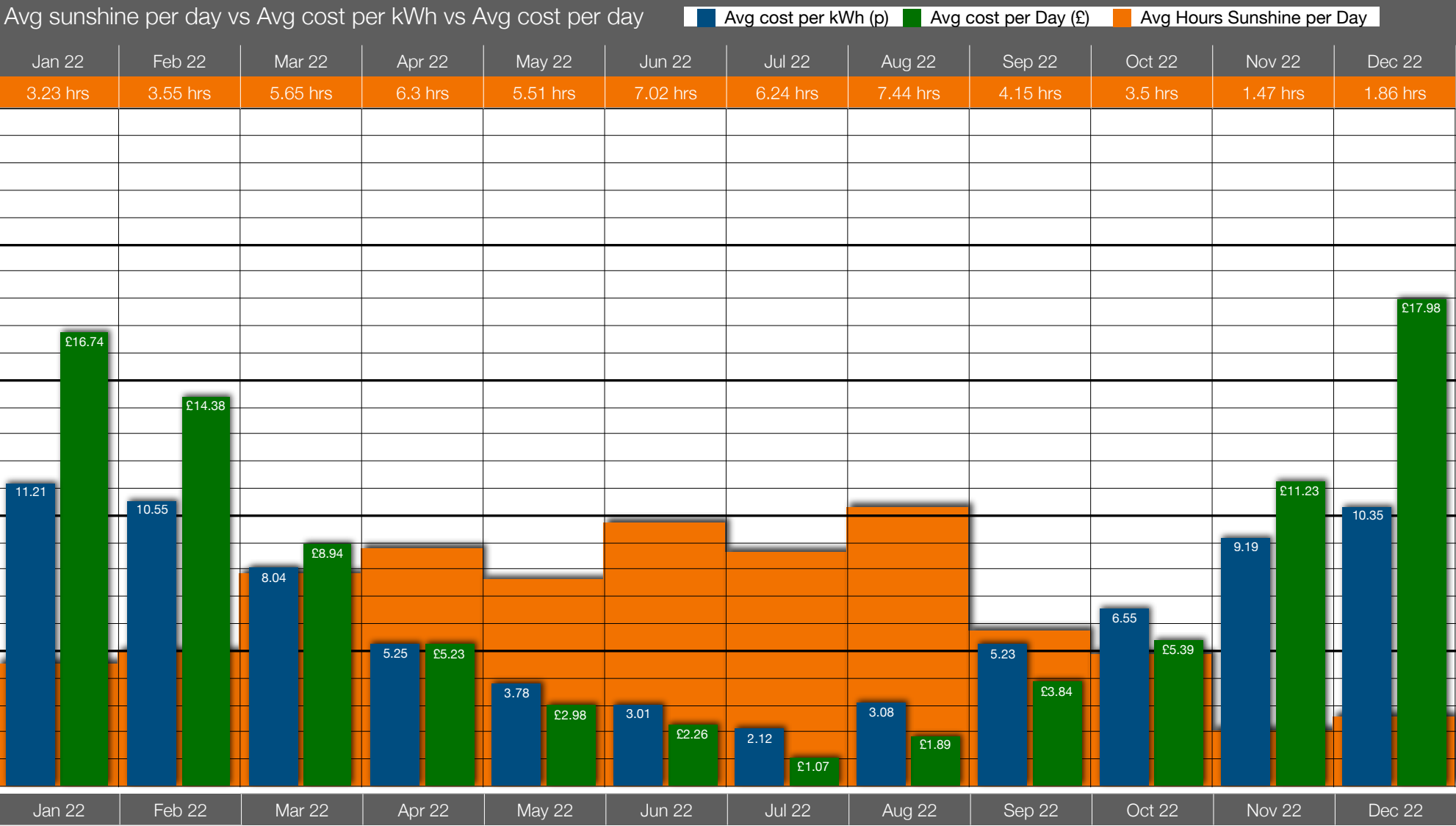
Free Solar At Home Free Public Charging Off-Peak Grid At Home Peak Grid At Home Paid Public Charging

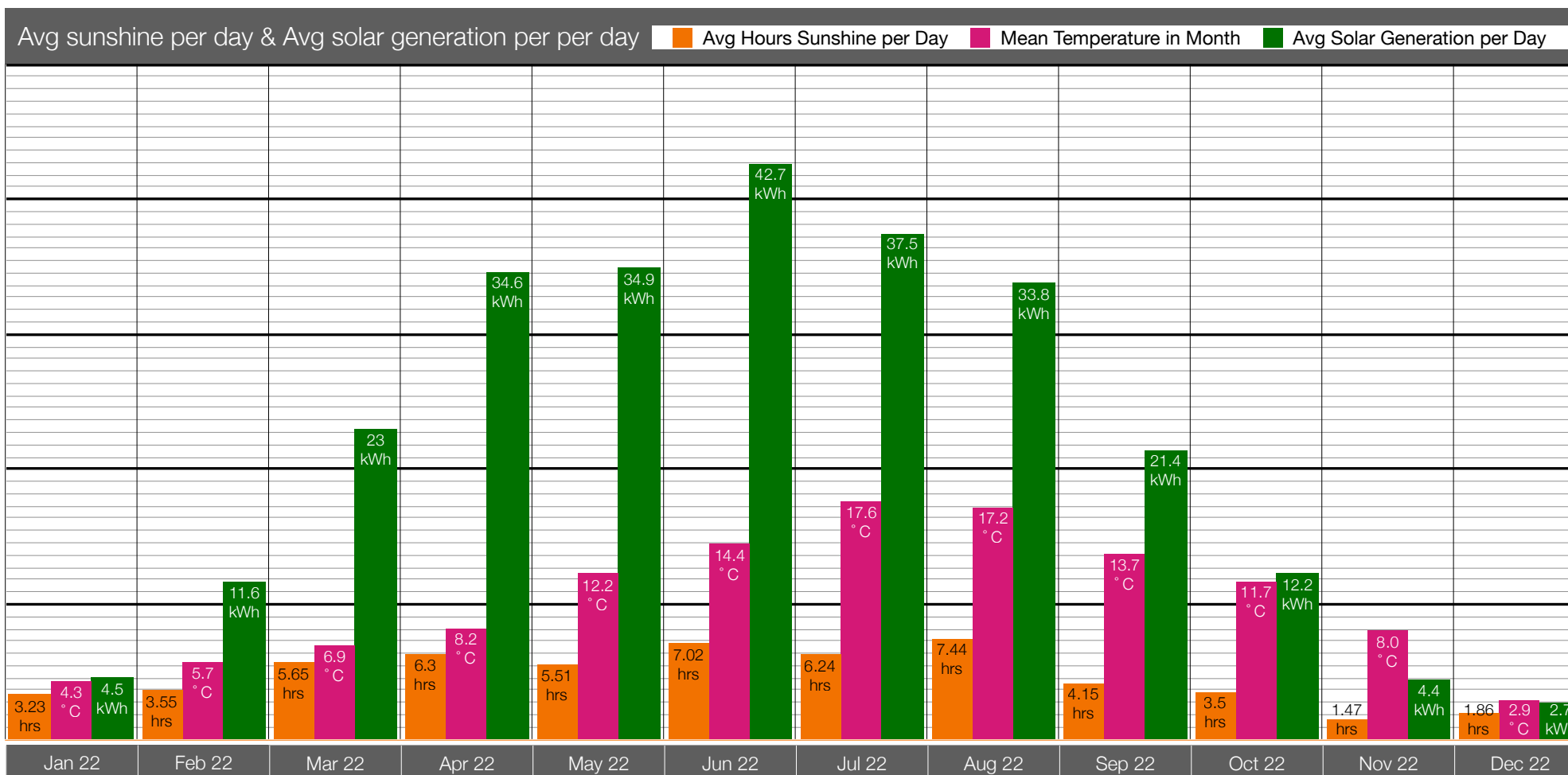
Both cars: total mileage, cost & carbon

Miles driven in period	21,221.6
Total cost, using charging mix shown	£286.90
Fuel cost, pence per mile	1.3519p
Cost saved vs ICE cars @ £1.72/litre	£4,046.60
CO2 saved vs ICE, total for both cars	4,260 kg



Avg sunshine per day vs Avg cost per kWh vs Avg cost per day





ASHP cost & carbon savings

Air Source Heat Pump

kWh electricity input in period	17,945 kWh
kWh heat output in period	48,429 kWh
COP efficiency (heat ÷ electricity)	2.70
Average electricity cost per kWh, pence	
Total ASHP electricity cost in period	

Heating oil for same output @ 9.8 kWh/l	4,942 litres
Cost of heating oil @ £0.86/litre	£4,273.64

Cost saved ASHP vs oil boiler

CO2 saved vs oil boiler @ 2.96 kg/litre 14,551 kg

Whole system cost & carbon savings

Smart energy savings

kWh electricity consumed in period	36,871
kWh generated by on-site solar	8,056
kWh imported from grid	28,815
Total grid electricity cost	£2,692.51

Electricity @ price cap rate	£10,831.28
CO2: electricity @ UK grid avg: 181g/kWh	6,674 kg

Cost saved vs standard rate electricity £8,138.77

CO2 saved by 100% renewable electricity 6,674 kg

Summary overview savings, incentives, and carbon reduction in period

Total energy cost in period for all uses, including electricity standing charge

Cost Avoided: standard rate electricity not purchased £10,831.28

Cost Avoided: boiler heating oil for same heat output not purchased £4,273.64

Cost Avoided: petrol/diesel for same mileage in ICE cars not purchased £4,568.35

Total energy purchase costs avoided £19,673.27

Incentive: Feed In Tariff for Solar Generation (+£2.19/day HMG subsidy + DFS: 01/10 – 31/12/2022) £579.34

Incentive: Renewable Heat Initiative for Air Source Heat Pump £1,620.60

Total incentives £2,199.94

Combined Costs Avoided and Incentives £21,873.21

MINUS total energy cost in period for all uses, including electricity standing charge

Overall net benefit = {(Combined Costs Avoided + Incentives) – (Energy Cost)}

Total CO2 saved: {(100% renewable electricity vs UK grid avg) + (EVs vs ICE) + (ASHP vs oil boiler)} 25.484 tonnes