Octopus Energy time-of-day tariff and its implications

Philip Steele

7th November 2018

octopus energy

Octopus Group (Octopuses / Octopi / Octopodes)

octopus investments

- £8bn funds managed
- £2.1bn in renewables
- 600+ employees

octopus energy

- Launched 2016
- 400,000+ customers
- 100+ employees

octopus electric vehicles

- Launched 2017
- EV experts
- 10+ employees

We use technology to bring lower and more transparent pricing, better service and more sustainable energy to customers

Our team

| Technology & innovation | Energy: Startups | Energy: Big 6 | Financial Services & innovation | Energy: Big 6 | Enterprise technology | Digital user experience |

...and another 110 talented, passionate people

Energy company service rating, May 2018 (results and ranking from November 2017 in brackets)				
Rank	Provider	'Great'	'OK'	'Poor'
1 (3)	Octopus Energy	93% (90%)	6% (6%)	1% (3%)
1 (-)	Zog Energy	94% (96%)	4% (2%)	2% (2%)
3 (2)	Bulb	90% (95%)	8% (3%)	3% (2%)
4 (4)	Tonik Energy	76% (86%)	17% (10%)	7% (5%)
5 (5)	Ovo Energy	76% (80%)	16% (16%)	9% (5%)
6 (6)	Avro Energy	66% (73%)	26% (20%)	7% (7%)
7 (10)	SSE (i)	53% (44%)	31% (35%)	16% (21%)
8 (7)	First Utility	53% (60%)	26% (24%)	22% (16%)
9 (9)	EDF	43% (46%)	34% (34%)	23% (19%)
10 (11)	Flow Energy	48% (44%)	20% (22%)	32% (34%)
11 (13)	E.on	36% (36%)	42% (36%)	22% (28%)
12 (15)	British Gas	28% (30%)	41% (33%)	32% (37%)
13 (16)	Scottish Power	29% (29%)	30% (31%)	41% (41%)
14 (17)	Npower	23% (27%)	31% (31%)	46% (41%)

Octopus Energy
Reviews (2,066) • Excellent

★★★★★ Claimed

Excellent		92%
Great		5%
Average		1%
Poor		1%
Bad		2%

Roger Sivieri
2 reviews

★★★★★ a month ago - ⚑

Dear Octopus Energy

Just wanted to say thank you for such a easy transition in getting information, price and cheaper renewable energy.
It is a breath of fresh air to speak to a company in plain language. Everything was made clear and an email was sent within 10 minutes fully explaining what we had discussed and I had agreed to.
No contract to sign up to. No exit fees to pay 'IF' i wanted to switch.
I trust Octopus Energy will go from strength to strength and blow the big 6 out of the water.AND just got my first £50 referral fee talk about savings.
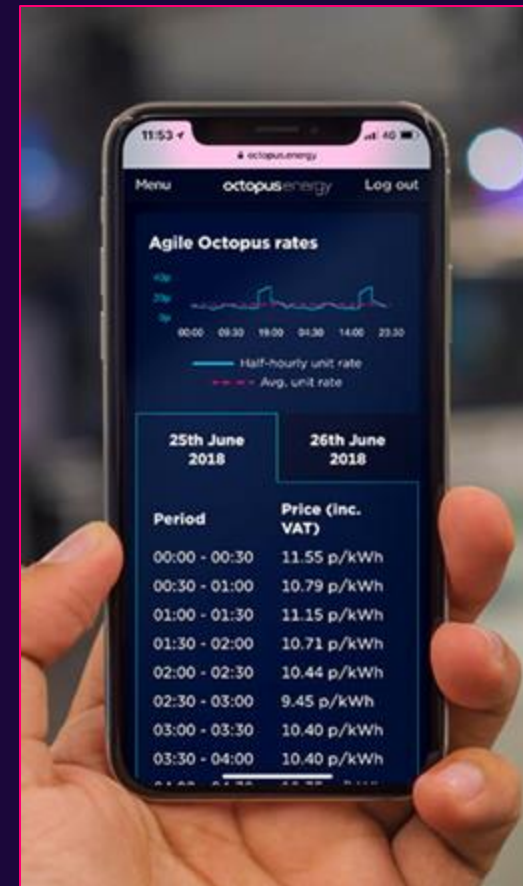
J MCCALL
@JenMcCall

Follow

@octopus_energy Your customer service is fantastic. Credit to all your staff. Issues resolved in a timely, professional manner. Thanks for being brilliant. I love 🐙. Best thing I ever did switching.

4:13 PM - 11 May 2018

Paul doherty
7 reviews

★★★★★

Been with octopus now for 12 months

Been with octopus now for 12 months, by far the best company I have ever dealt with. Clear pricing and bills, monthly reminders for metre readings and easy to use website. If I've asked them anything they respond straight away. Hopefully won't ever need to move energy providers again thanks to octopus.

Agile: innovation in energy

Explore how shifting your electricity use could save you even more, using the profiles beneath the chart.

usage (% of day)

Unit rate:
Avg. Big 6 SVT

Unit rate:
Agile Octopus

Half-hourly unit rates over the last 12 months, averaged across all regions (including VAT).

Select a profile to see how your costs change, based on when you use electricity

Working 9 to 5

Electricity

Supply number

S	1	801	902
	1200029554322		

Supply Address:

Agile Octopus (10th March 2018 - 20th April 2018)

Energy Charges for Meter 17P3001648		
10th March 2018	1934.5 Smart meter reading	
21st April 2018	2211.7 Smart meter reading	
Energy Used	277.3 kWh @ 12.03p/kWh†	£33.34
Standing Charge	42 days @ 20.00p/day	£8.40
Subtotal of charges before VAT		£41.74
VAT @ 5.00%		£2.09
Total Electricity Charges		**£43.83**
Total charges for bill		£185.38

Electricity

Tariff Name	Agile Octopus
Unit Rate	12.03p/kWh
Standing Charge	20.00p/day (£73.00/year)
Price Guaranteed Until	10th March 2019
Early Exit Fee	None
Estimated Annual Usage	kWh

† This is the average daily unit rate.

Saturday
10th March 2018

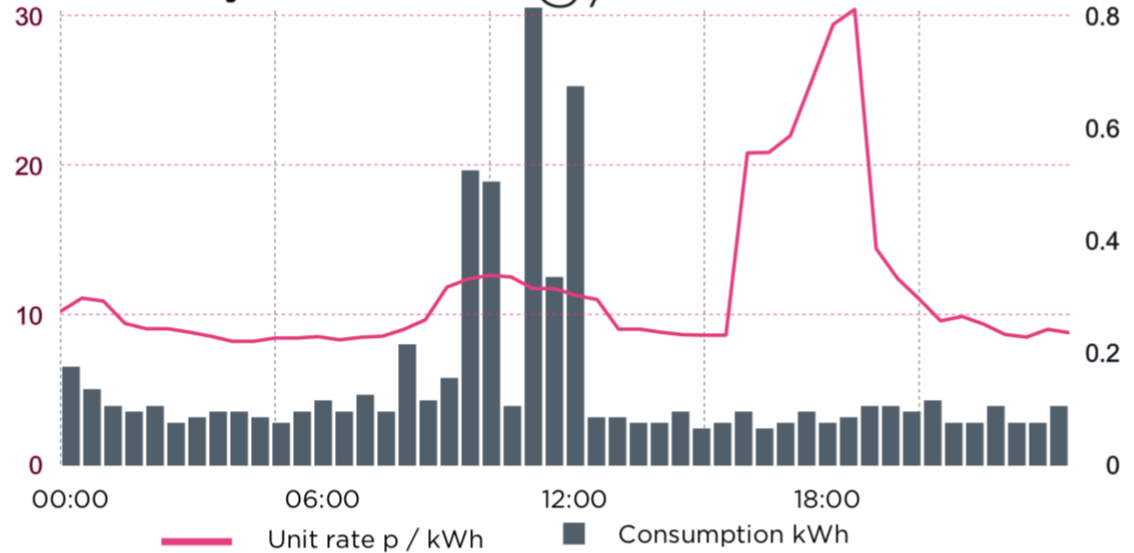For electricity meter 17P3001648

Total cost

£ 0.79

Total consumption

6.83 kWh

Weighted average unit rate
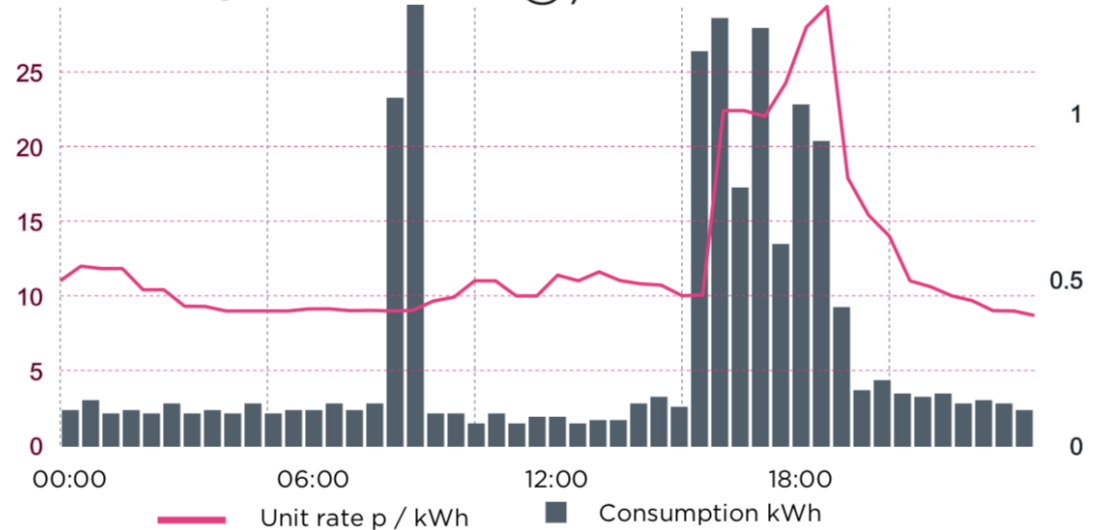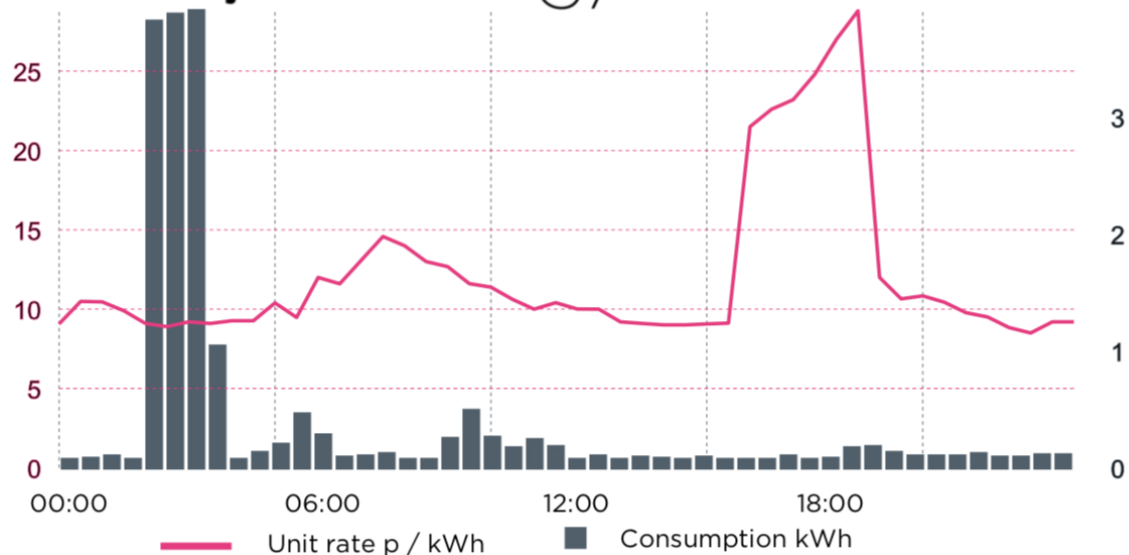
11.60 p / kWh

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Period	Rate p / kWh	Consumption kWh	Cost p
00:00 - 00:30	10.20	0.17	1.734
00:30 - 01:00	11.09	0.13	1.442
01:00 - 01:30	10.89	0.10	1.089
01:30 - 02:00	9.40	0.09	0.846
02:00 - 02:30	9.04	0.10	0.904
02:30 - 03:00	9.04	0.07	0.633
03:00 - 03:30	8.81	0.08	0.705
03:30 - 04:00	8.54	0.09	0.769
04:00 - 04:30	8.20	0.09	0.738
04:30 - 05:00	8.20	0.08	0.656
05:00 - 05:30	8.42	0.07	0.589
05:30 - 06:00	8.42	0.09	0.758
06:00 - 06:30	8.51	0.11	0.936
06:30 - 07:00	8.30	0.09	0.747
07:00 - 07:30	8.47	0.12	1.016
07:30 - 08:00	8.54	0.09	0.769
08:00 - 08:30	9.00	0.21	1.890
08:30 - 09:00	9.64	0.11	1.060
09:00 - 09:30	11.82	0.15	1.773

Sunday

18th March 2018

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Period	Rate p / kWh	Consumption kWh	Cost p
00:00 - 00:30	11.00	0.10	1.100
00:30 - 01:00	11.98	0.13	1.557
01:00 - 01:30	11.82	0.09	1.064
01:30 - 02:00	11.82	0.10	1.182
02:00 - 02:30	10.40	0.09	0.936
02:30 - 03:00	10.40	0.12	1.248
03:00 - 03:30	9.30	0.09	0.837
03:30 - 04:00	9.28	0.10	0.928
04:00 - 04:30	8.98	0.09	0.808
04:30 - 05:00	8.98	0.12	1.078
05:00 - 05:30	8.98	0.09	0.808
05:30 - 06:00	8.98	0.10	0.898
06:00 - 06:30	9.12	0.10	0.912
06:30 - 07:00	9.12	0.12	1.094
07:00 - 07:30	9.00	0.10	0.900
07:30 - 08:00	9.02	0.12	1.082
08:00 - 08:30	8.98	1.04	9.339
08:30 - 09:00	9.02	1.32	11.906
09:00 - 09:30	9.64	0.09	0.868
09:30 - 10:00	9.91	0.09	0.892
10:00 - 10:30	11.00	0.06	0.660
10:30 - 11:00	11.00	0.09	0.990

For electricity meter 17P3001648

Total cost

£ 2.26

Total consumption

13.82 kWh

Weighted average unit rate

16.36 p / kWh

Thursday
22nd March 2018

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For electricity meter 17P3001648

Period	Rate p / kWh	Consumption kWh	Cost p
00:00 - 00:30	9.07	0.07	0.635
00:30 - 01:00	10.49	0.08	0.839
01:00 - 01:30	10.46	0.10	1.046
01:30 - 02:00	9.90	0.07	0.693
02:00 - 02:30	9.10	3.82	34.762
02:30 - 03:00	8.90	3.88	34.532
03:00 - 03:30	9.20	3.91	35.972
03:30 - 04:00	9.10	1.04	9.464
04:00 - 04:30	9.27	0.07	0.649
04:30 - 05:00	9.27	0.13	1.205
05:00 - 05:30	10.40	0.20	2.080
05:30 - 06:00	9.48	0.46	4.361
06:00 - 06:30	12.00	0.28	3.360
06:30 - 07:00	11.60	0.09	1.044
07:00 - 07:30	13.09	0.10	1.309
07:30 - 08:00	14.58	0.12	1.750
08:00 - 08:30	14.00	0.07	0.980
08:30 - 09:00	13.00	0.07	0.910
09:00 - 09:30	12.68	0.25	3.170
09:30 - 10:00	11.61	0.49	5.689

Total cost

£ 1.85

Total consumption

18.48 kWh

Weighted average unit rate

10.01 p / kWh

Why does this work?

5p plastic bag tax = 95% reduction in use

Consumers know energy cost varies through the day

Agile gives them the tool to take advantage

Car charge at night

Washing machine use on a sunny day

Agile Octopus: Powering the way to a low carbon future

Agile customer cohort	Annual savings vs Octopus 12M Fixed Tariff	Annual Savings vs Big 6 average SVT
Full sample	£45	£188
Top 25% most engaged	£91	£229
Bottom 25% most engaged	£0.80	£170
EV drivers	£132	£338

EV drivers demonstrate the greatest sensitivity to price signals.

Behaviour change of whole cohort
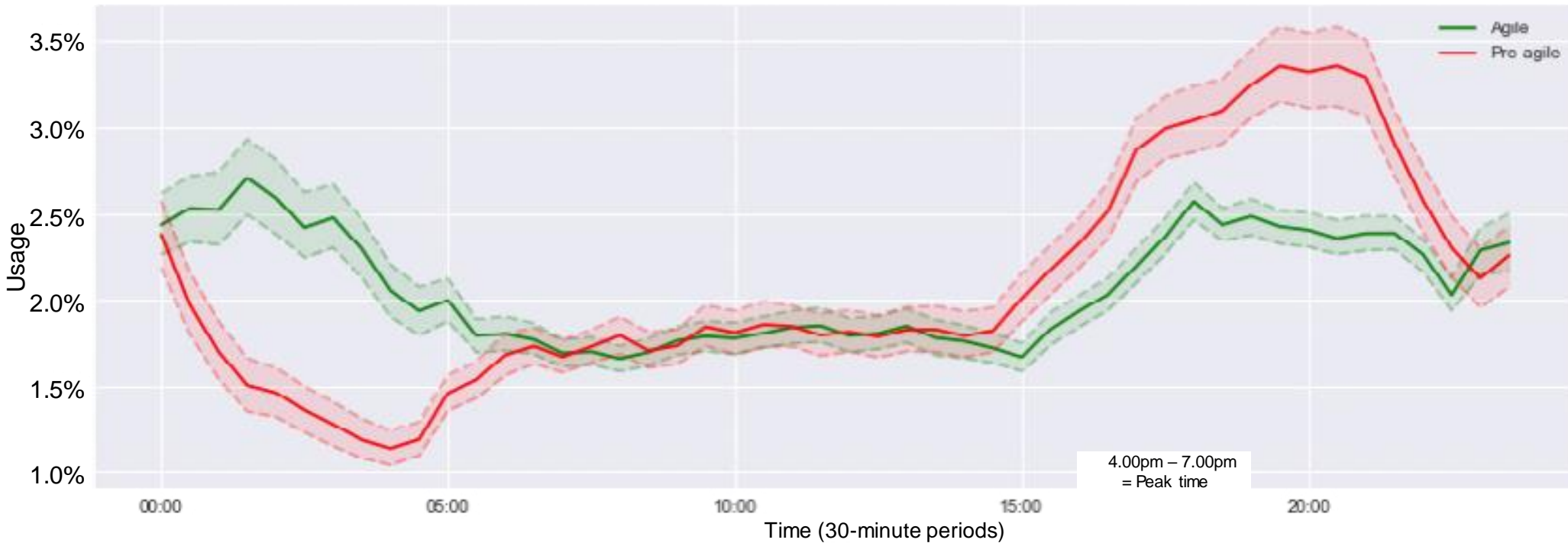
Agile Octopus consumers shifted consumption out of the peak period by 28%
And reduced CO_2 emissions (UK Carbon Intensity data)

EV drivers demonstrate the greatest sensitivity to price signals
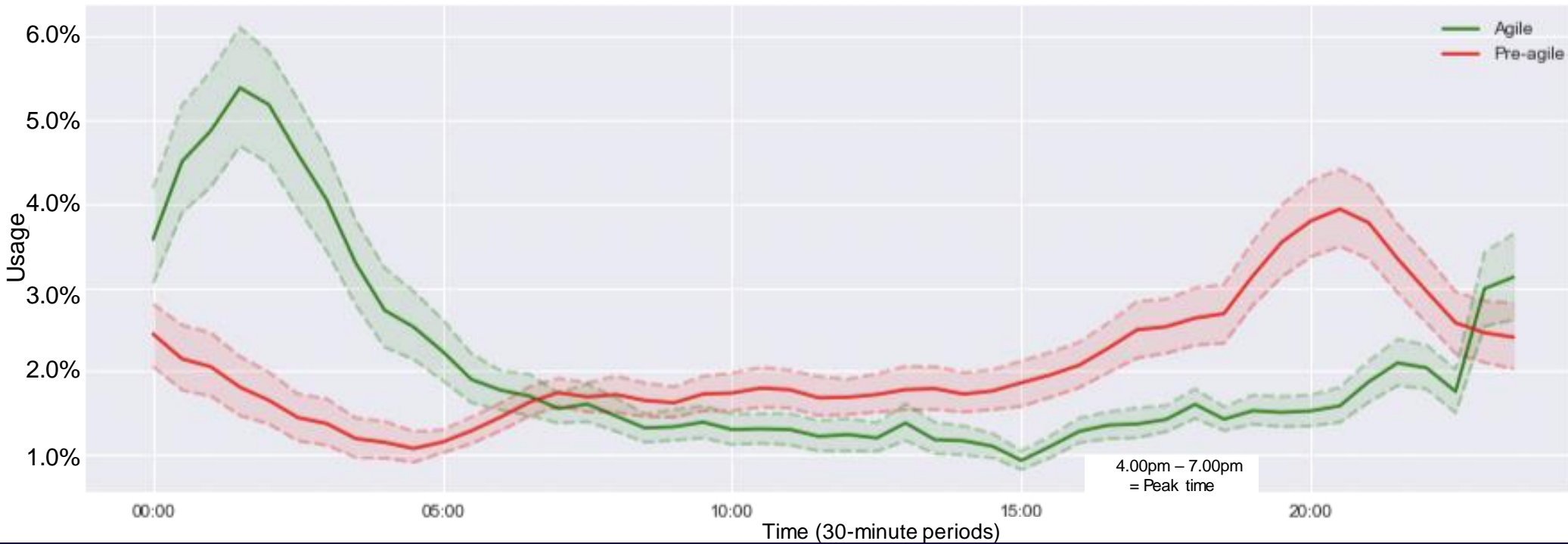
Electric Vehicle Agile Octopus customers reduced their peak-period consumption by 47%

Comparing Agile to all Octopus Customers
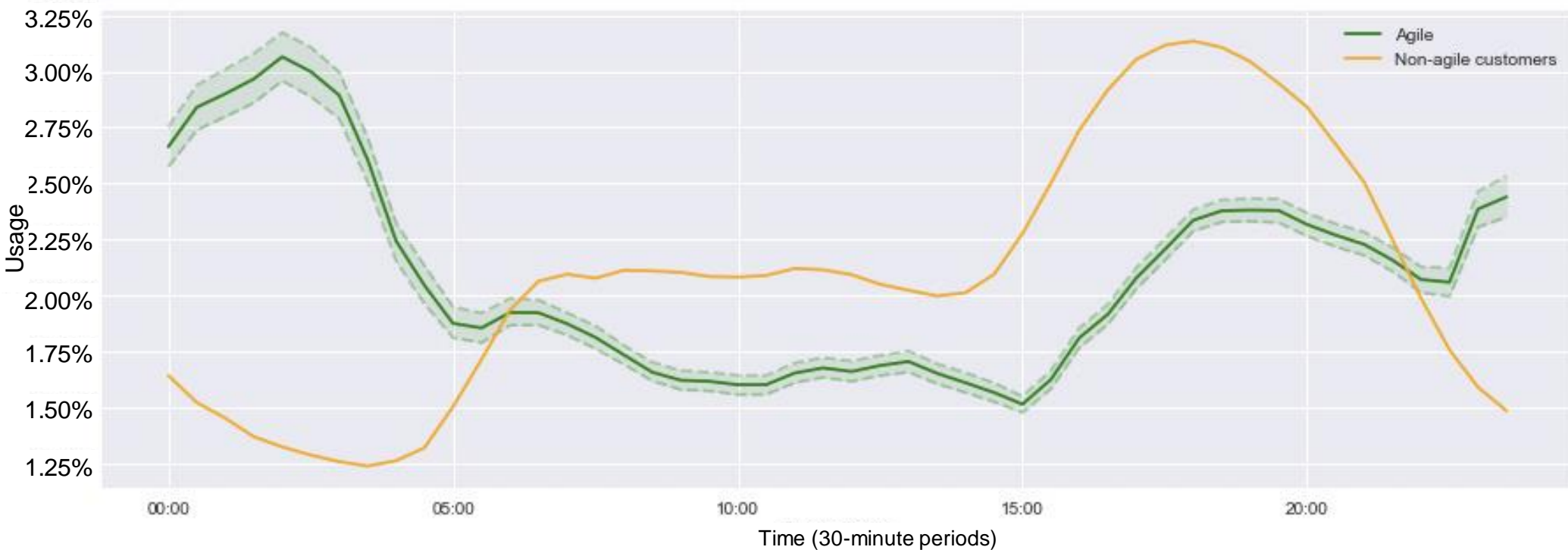
Agile Octopus customers have a markedly different consumption profile compared to all other Octopus customers – Agile works.

Challenges

- Technology
- Complex for consumer
- Impact on different consumer types
- Cannot give accurate projections
- Consumer behaviour change

Try it for yourself

Explore how shifting your electricity use could save you even more, using the profiles beneath the chart.

— usage (% of day)

- - - Unit rate: Avg. Big 6 SVT

— Unit rate: Agile Octopus
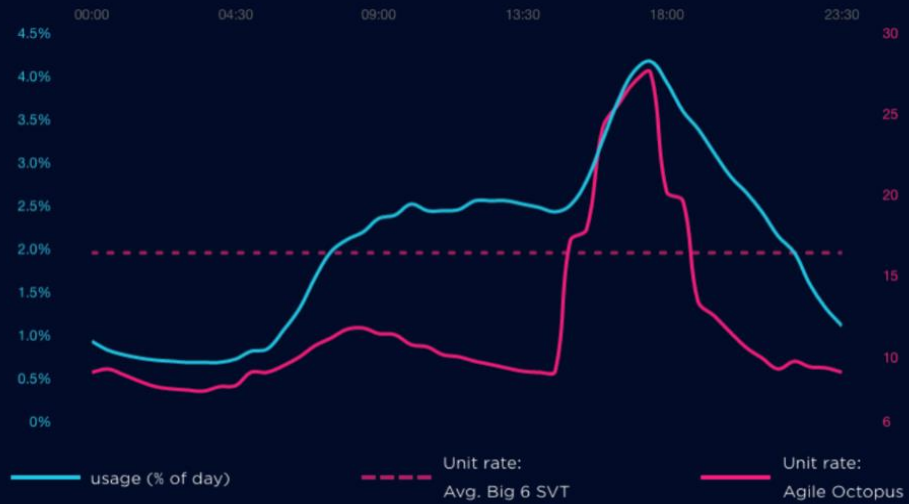
Half-hourly unit rates over the last 12 months, averaged across all regions (including VAT).

Select a profile to see how your costs change, based on when you use electricity

Family home	**Working 9 to 5**	**Night chargers**

A home with one or more school age children, with energy use rising from 3pm to a 6pm peak, then tailing off quickly.

£42.09	**£40.56**	**£48.43**
Agile Octopus	Octopus 12M Fixed	Avg. Big 6 SVT

Enter your actual consumption to see what you would've paid over the last 12 months.

USAGE

3100

Or choose an average:
Low   **Med**   High

Update

Agile Octopus is the first tariff of its kind, so there's a few things you really ought to know:

1.

☐ **Agile Octopus is not for everyone.**

Unit prices are set at 4pm for the following day according to wholesale costs, with a different price for every 30 minutes of every day. Prices may rise as well as fall.

If you prefer the security of fixed prices, you should consider our Fixed or Super Green Octopus tariffs.

2.

☐ The variable nature of Agile Octopus means any prediction of future costs will be inaccurate and historical data will not predict future performance.

The cost explorer above is based on the average unit rates for the last 12 months, and in no way constitutes a guarantee of future rates.

3.

☐ In the absence of half-hourly smart meter data, we will charge you as we would a customer on our Flexible Octopus variable tariff, based on typical Profile 1 usage attribution.

4.

☐ The in-home display of your smart meter will not display realtime prices, but it will show your consumption. You can check your prices at any time, from anywhere, in your online account

Make sure you've read and agree to the above

Sign me up

Key features

- Limited to 500 customers during trial period
- Can switch to any of our other tariffs instantly
- Can switch to any other supplier with no exit fees

- Daily tariff data
- Consumption data
- Device Profile
- Schedule management
- Carbon Intensity in the mix

- Device & System support
- Adoption & automation of behaviour change

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Octopus Hackathon; May 2018 100 engineers, 22 companies
"Alexa, can you do my washing when it's cheapest?"

A Hack Day for the future of energy

- Electric Vehicle Chargers
- Washing machines
- Ground Source Heat Pumps
- Home Battery Storage
- Smart Home Platforms

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Where to from here?

- The analysis shows us Agile has significant benefits
- Adoption is there
- High-energy consuming devices are a good driver
- We want to connect many products and services
- Storage is going to play a big part in this

- Watch this space...