

Octopus Energy Group

FlexForum

11 May 2022

octopus energy



Our story so far

octopus energy

Launched by ecommerce entrepreneurs with a vision of using technology and data to bring affordable green energy to the world and revolutionise customer experiences

octopus electric vehicles

Reached 100,000 retail customers & launched Octopus Electric Vehicles



Winning multiple awards - the only energy supplier awarded Which? Recommended status. Launched Octopus Energy Services



KRAKEN

Surpassed 1 million UK retail customers, announced licensing agreements for Kraken technology platform, and launched Octopus Energy Hatchery



TOKYO GAS

Valued at over \$2bn after closing two investment rounds in nine months, and successfully entered Australia via partnership with Origin and Japan with Tokyo Gas



Entered Spain, Italy, and France with the acquisitions of Umeme, Sato Energia, and Plüm Energie

octopus renewables

A brighter way

2016

2017

2018

2019

2020

2021



Octopus Energy
Reviews 55,972 • Excellent
★★★★★ 4.8



Entered Europe's largest energy market, Germany, with the acquisition of green energy supplier 4hundred, Germany's first digitally focused energy provider



Entered USA with acquisition of Evolve Energy. Acquired Upside Energy (now renamed KrakenFlex)



Launched OE Generation, Kraken Flex, Electric Juice, plus licensed Kraken to E.ON

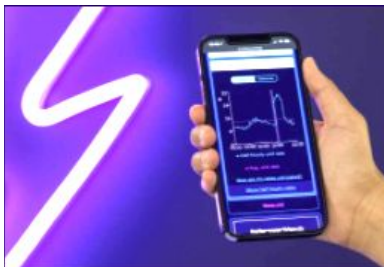


With the acquisition of Octopus Renewables, and being appointed Supplier of Last Resort for Avro Energy, OE now has over 3.2 million customers in the UK, with operations in 13 countries and over 24 million accounts contracted globally onto Kraken platform.

Major investments in 2021 included \$600m pledged by Generation IM (led by Al Gore) and \$300m by pension fund CPPIB.

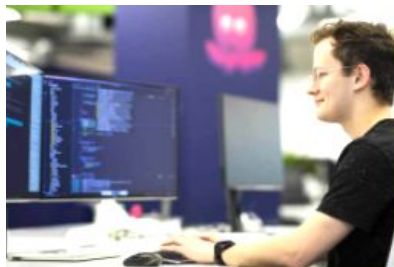
Octopus Energy Group

10 businesses in 9 countries across 3 continents serving more than 3 million domestic customers, over 50,000 business customers, with 25 million contracted accounts for our entech platform, Kraken.



Octopus Energy Retail:

We're bringing our retail business to the world, with operations in UK, Germany, France, Italy, Spain, USA, Japan, Australia and New Zealand



Kraken Technologies:

Kraken is our revolutionary energy tech platform based on advanced data and machine learning, and built around the customer.



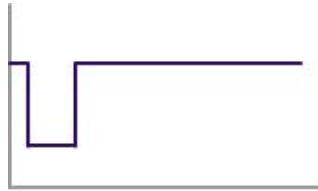
KrakenFlex:

Our DERMs platform controls and optimises distributed energy assets in real time, enabling maximum value extraction

Overview - Octopus GB Smart Tariffs

- First time-of-use tariffs launched in 2018
- Now over >80,000 customers on smart tariffs

Octopus Go



Static ToU

Fixed ~35p/kWh;
Off-peak 0030-0430
7.5p/kWh

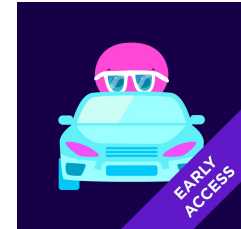
Agile Octopus



Dynamic ToU

Half-hour price tracks
day-ahead, notified
prior day 4-8pm

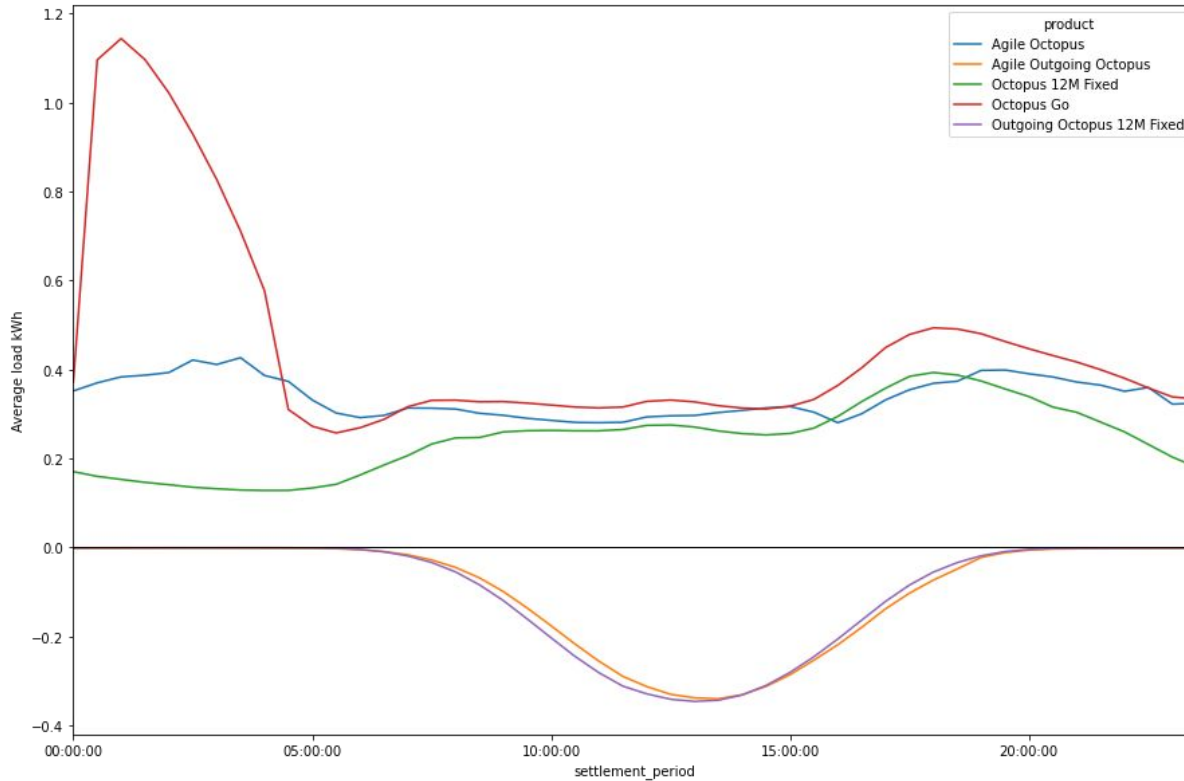
Intelligent Octopus



Managed Charging

Optimised charging for
customer preferences
& low-cost times

Smart Tariff enabled flexibility



Static ToU encourages overnight charging

Dynamic ToU encourages flatter profile

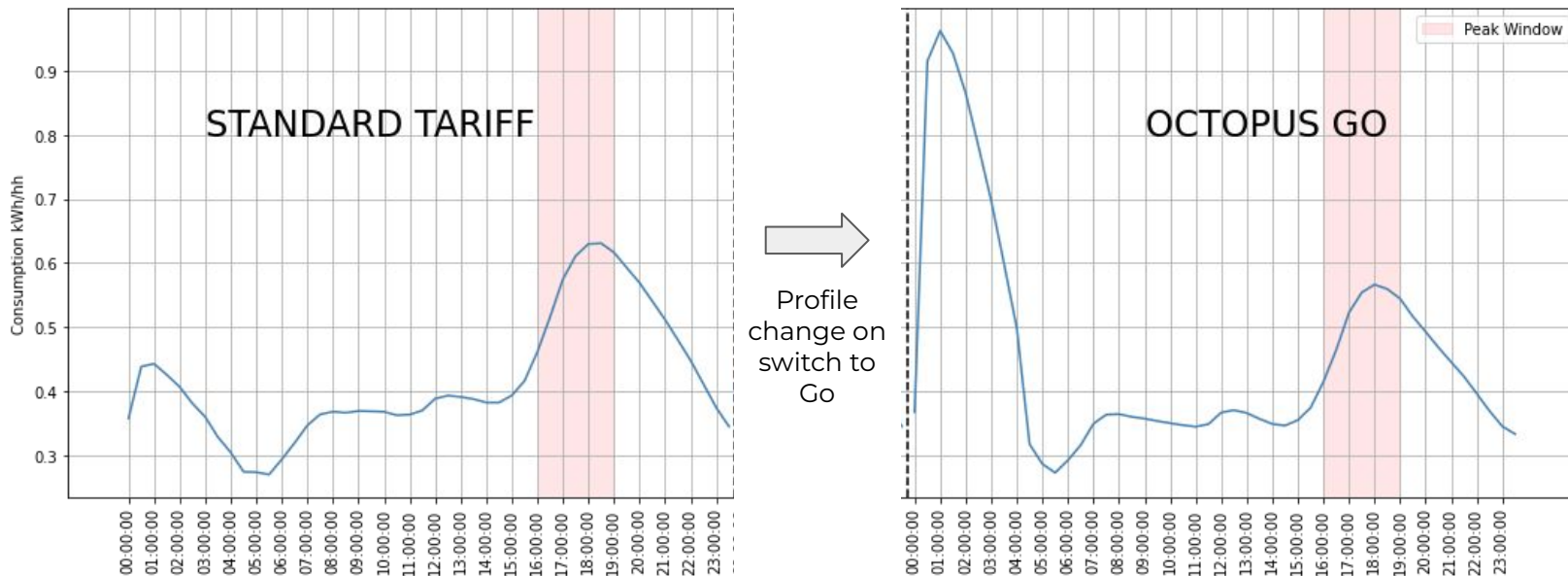
Non-smart customers follow typical profile

Non-smart export follow typical solar shape

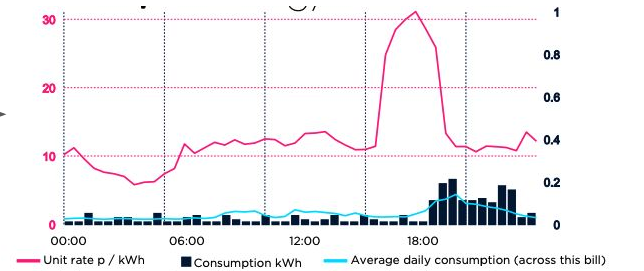
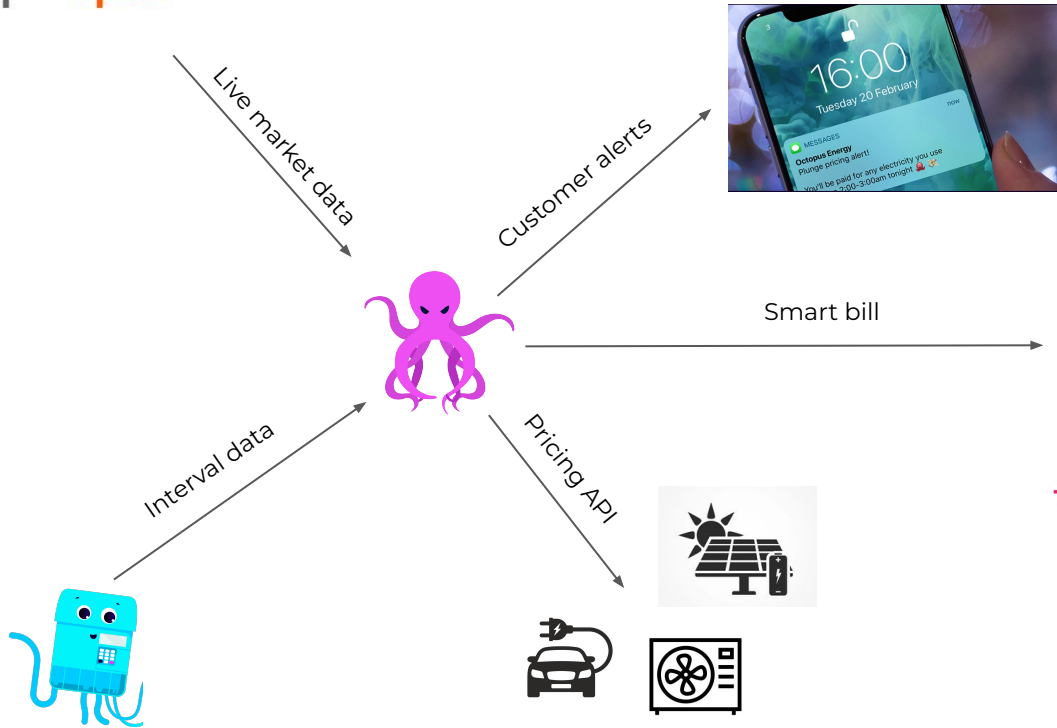
Dynamic ToU export shifts to more expensive periods

Octopus Go: static ToU targeting EV drivers

Average profile before and after switch



Dynamic Time of Use Tariff - Agile



Period	Rate p / kWh	Consumption kWh	Cost p
00:00 - 00:30	10.20	0.01	0.102
00:30 - 01:00	11.20	0.01	0.112
01:00 - 01:30	9.60	0.05	0.480
01:30 - 02:00	8.20	0.01	0.082
02:00 - 02:30	7.62	0.01	0.076
02:30 - 03:00	7.40	0.03	0.222
03:00 - 03:30	7.00	0.03	0.210

Agile overview

Agile formula: Half hourly price = $\min(2.20 \times W + P, 33.33)$

Non-energy costs
(e.g. distribution,
taxes, location)

Day-
ahead
price

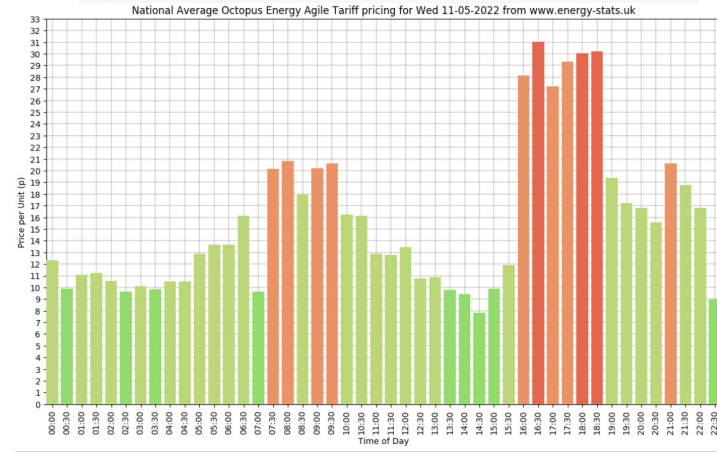
Peak price:
12p 4-7pm, 0p
otherwise

Cap at
35p
(incl. VAT)

Prices published between 4-8pm prior day,
available via an API ([documentation](#))

National average pricing for @OctopusEnergy Agile Tariff: Wed 11-05-2022

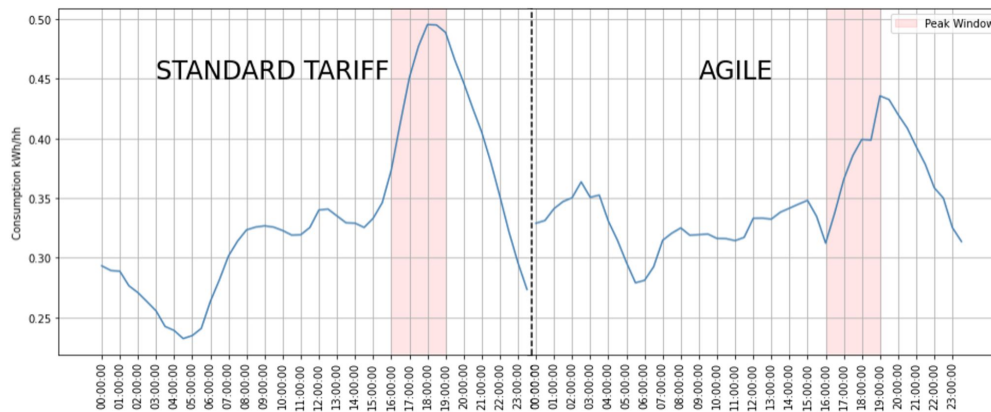
Min: 7.8p (14:30)
Max: 31.0p (16:30)
Avg: 15.7p
Avg Excl Peak: 13.7p
Cheapest 4hrs: 9.4p
Peak 4pm-7pm: 29.3p
Fixed Tariff: 42.1p



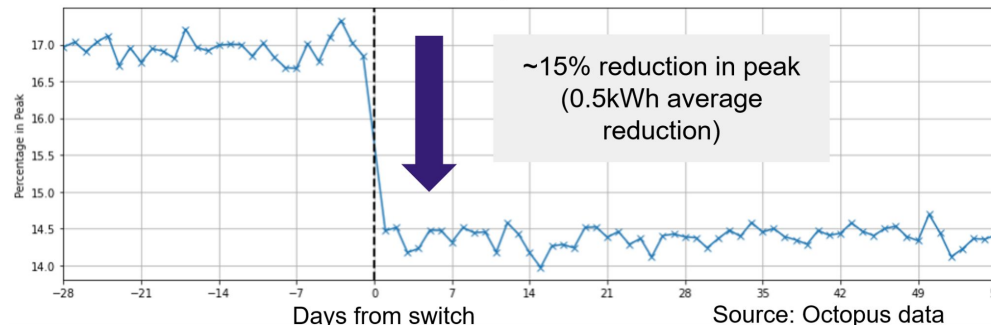
Agile insights:

Large shift in behaviour as customers switch onto Agile

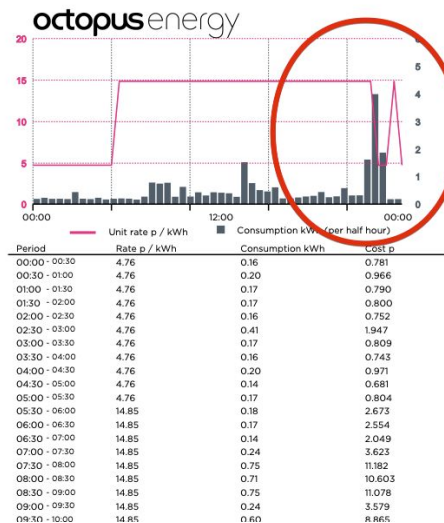
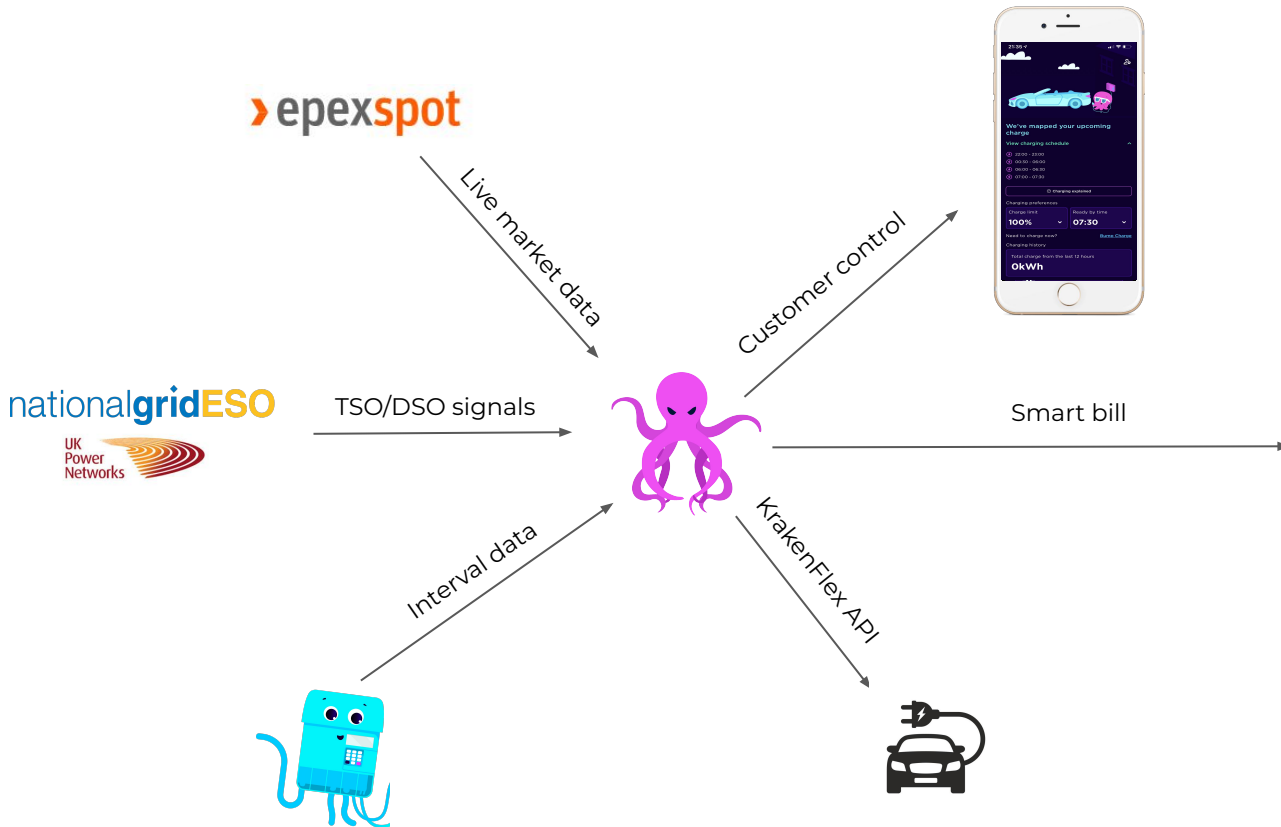
Average consumption by half hour, 28 days either side of switch to Agile



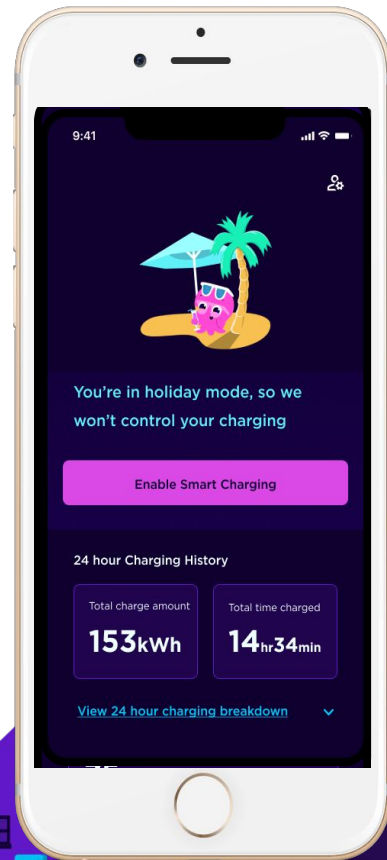
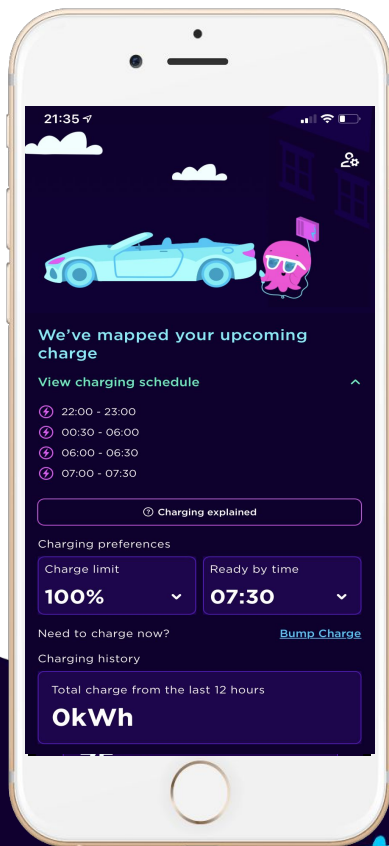
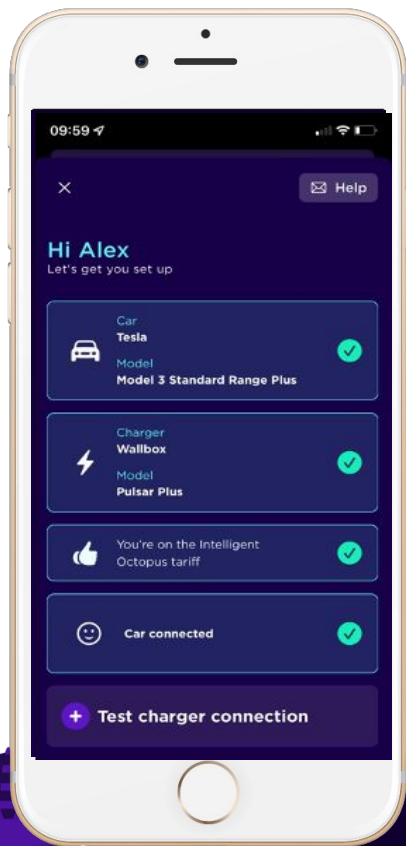
Average consumption in peak, either side of switch



Intelligent Octopus Dispatchable Dynamic Time of Use



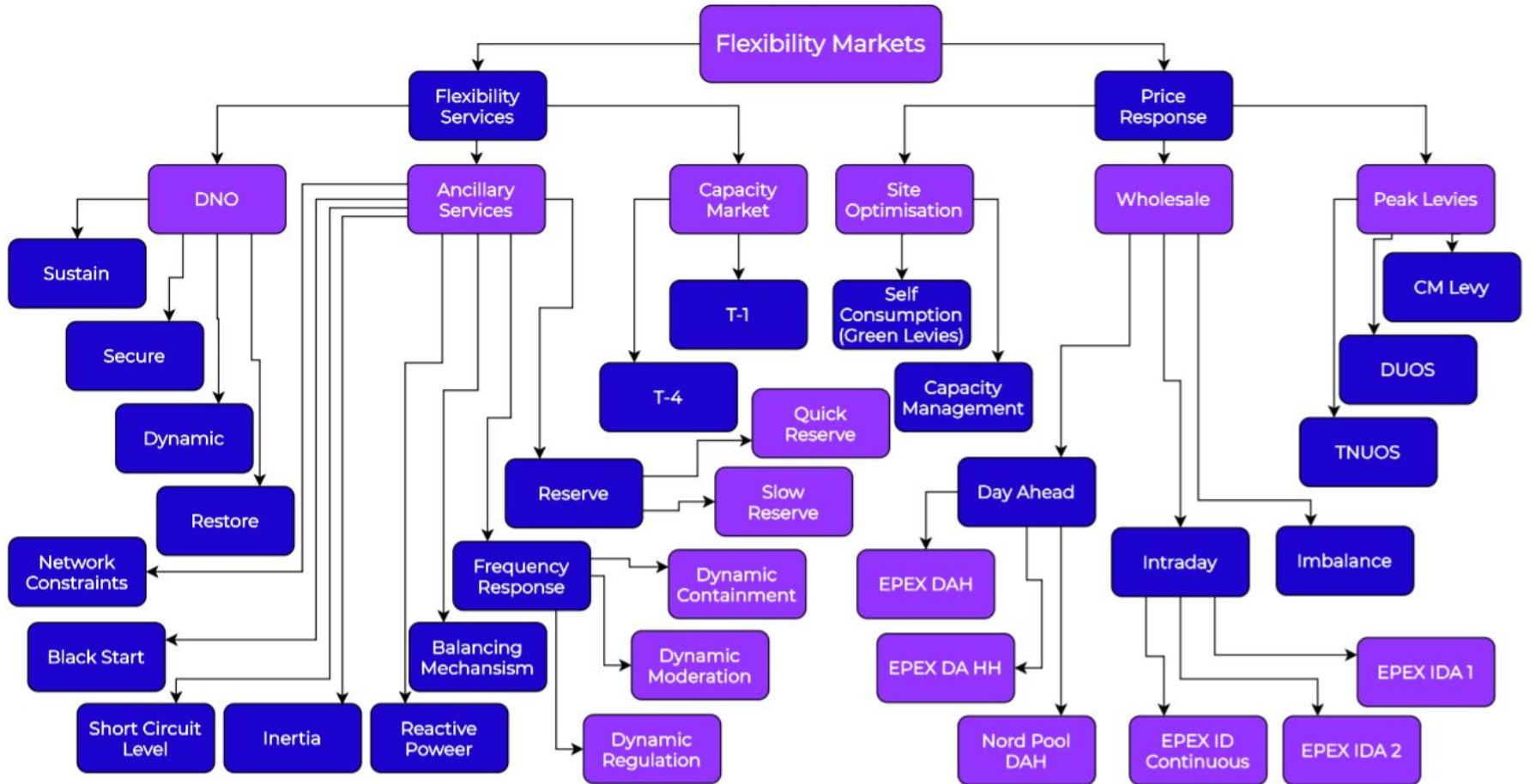
Intelligent Octopus - ultimate simplicity for users



Intelligent Octopus: Dispatch over 1 day in a specific distribution zone



Market Landscape



GB DNO Flexibility Services

- To date, used for **constraint management**
 - Generation turn-up/demand turn-down
 - Future: generation turn-down/demand turn-up
 - Future: reactive power and more
- Octopus participate with EVs via our Intelligent Octopus product
 - Scheduling to enact a demand shift
 - Hold contracts for delivery with 4 of the 6 UK DNOs
 - Incorporating additional low carbon technology assets + generation this year

