

# 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

2021



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.

2016

2017

2018

2019

2020



hundred

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)



### Octopus Energy

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

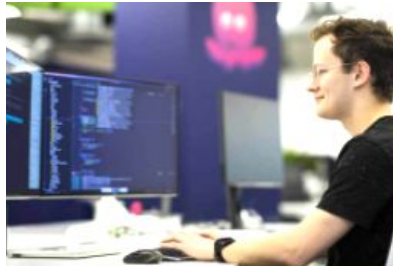
# Octopus Energy Group

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.



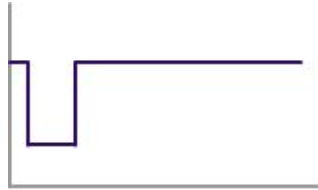
## KrakenFlex:

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

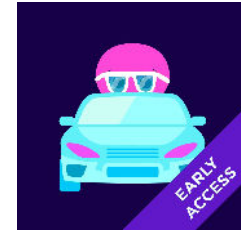
## Agile Octopus



### Dynamic ToU

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

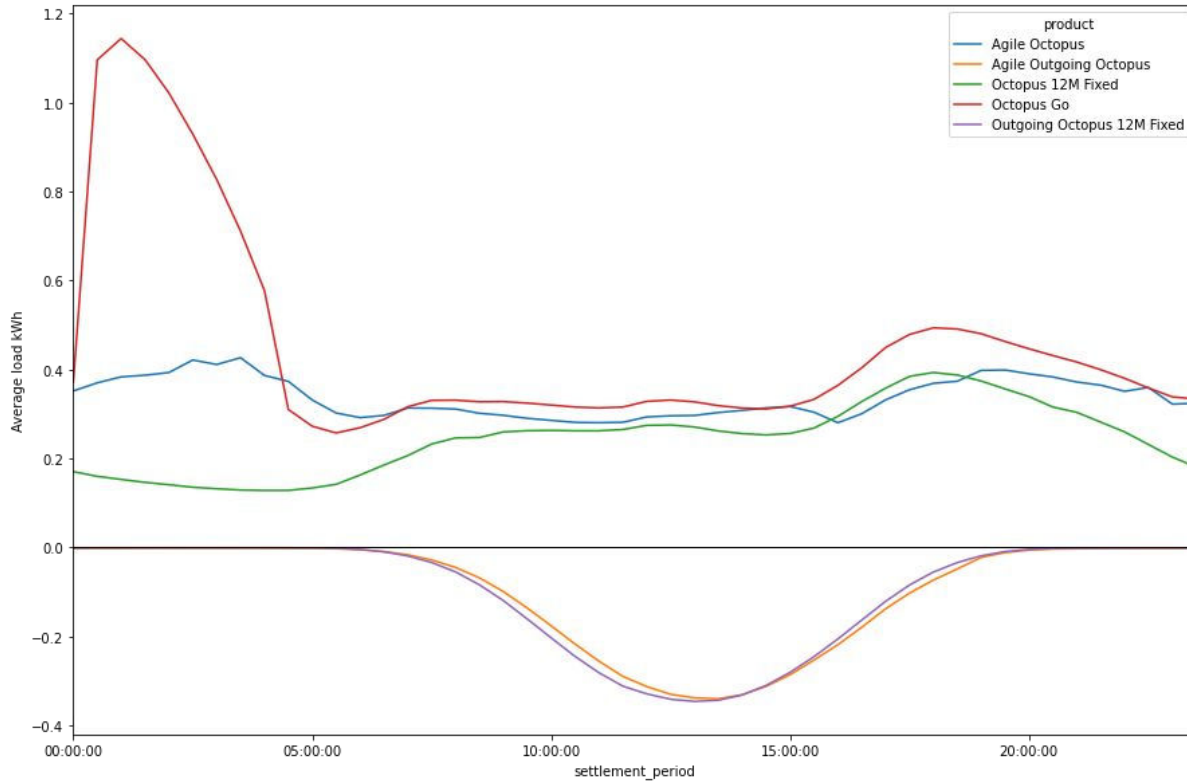
## Intelligent Octopus



### Managed Charging

Optimised charging for  
customer preferences  
& low-cost times

# Smart Tariff enabled flexibility



Static ToU encourages overnight charging

Dynamic ToU encourages flatter profile

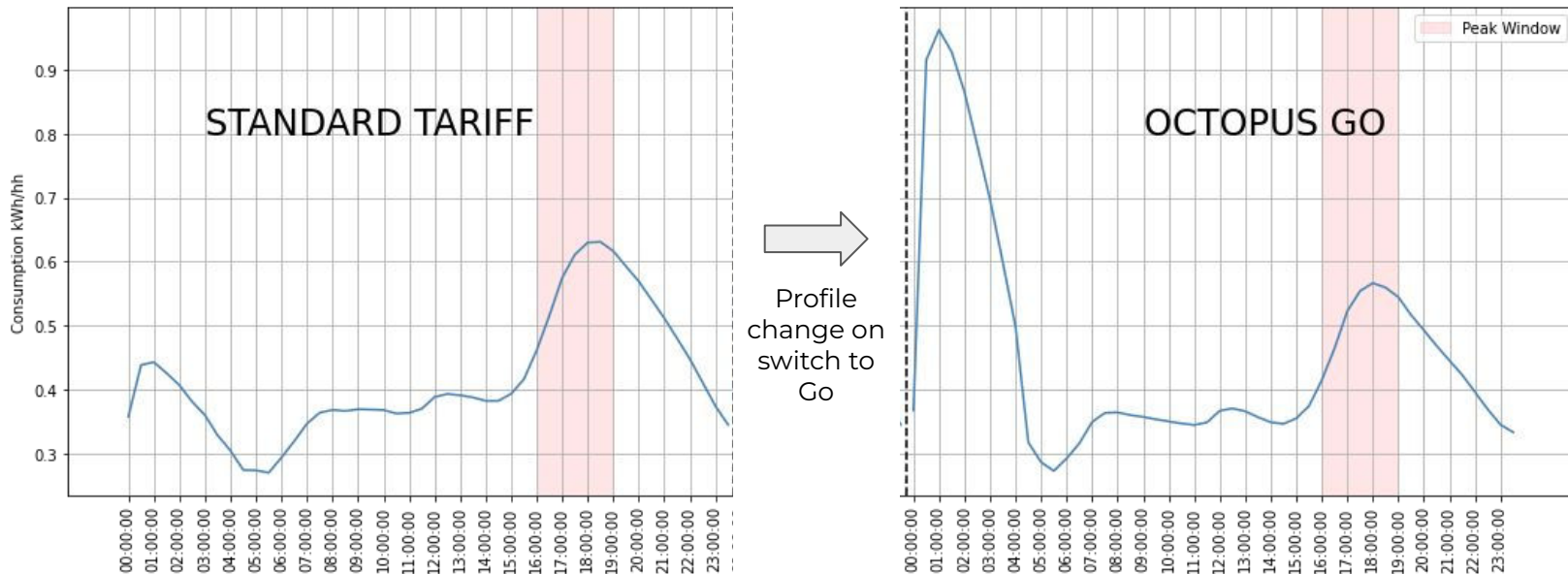
Non-smart customers follow typical profile

Non-smart export follow typical solar shape

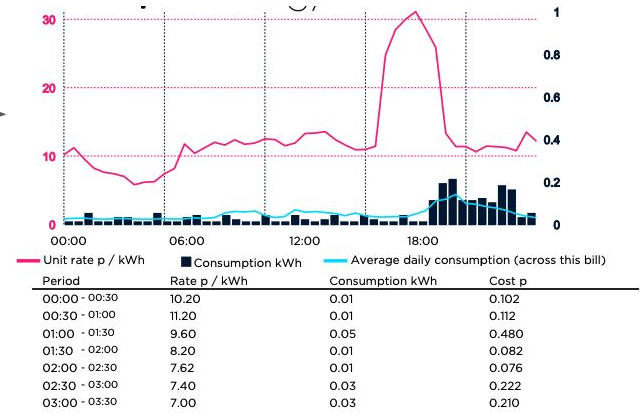
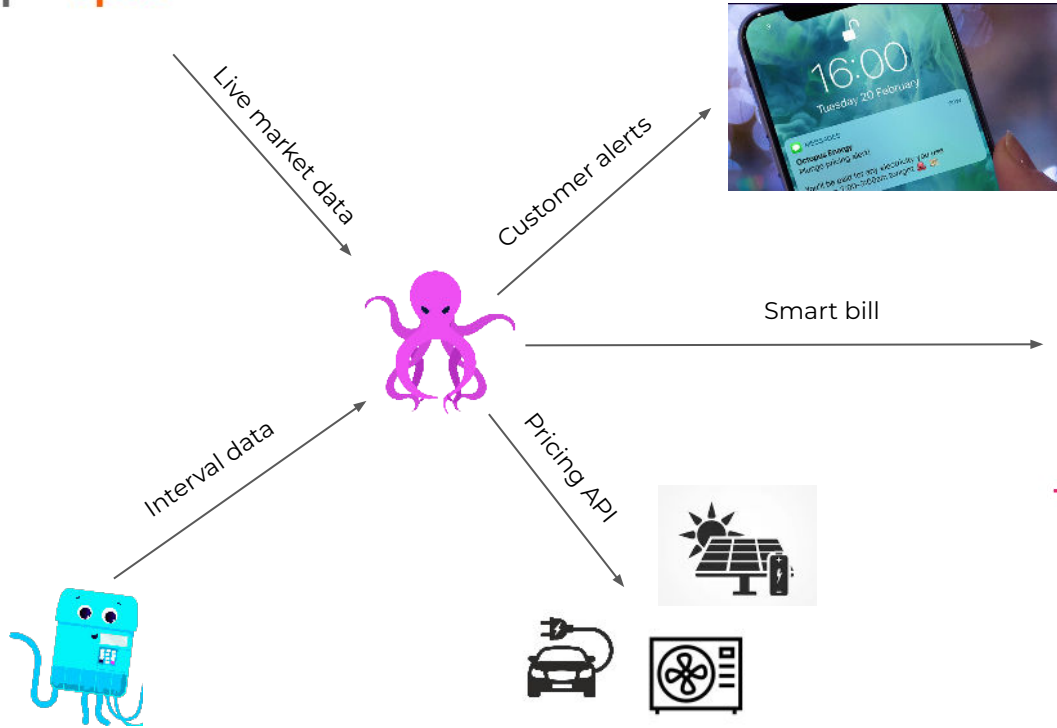
Dynamic ToU export shifts to more expensive periods

# Octopus Go: static ToU targeting EV drivers

Average profile before and after switch

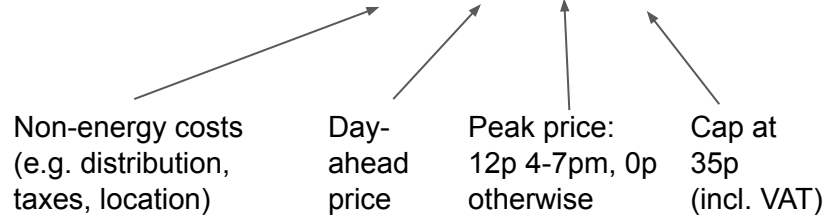


# Dynamic Time of Use Tariff - Agile



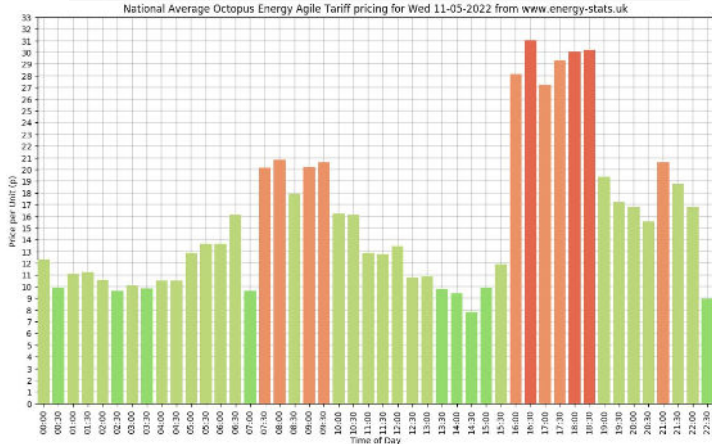
# Agile overview

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



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

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

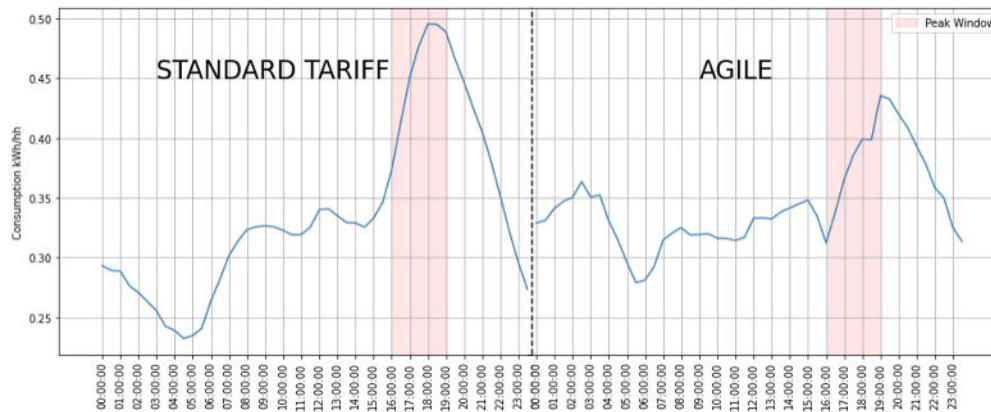




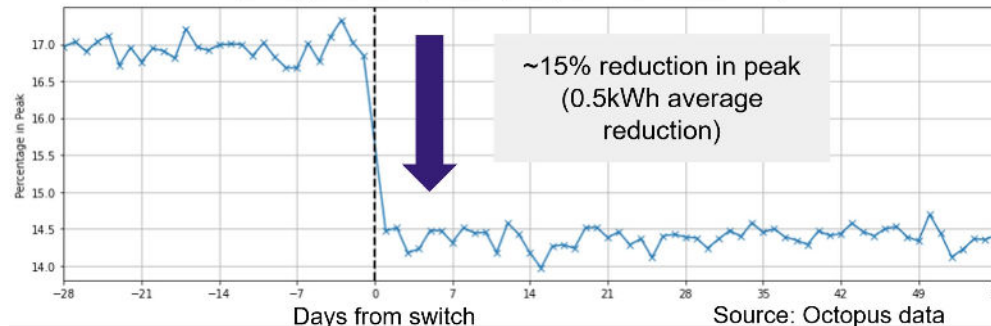
# Agile insights:

Large shift in behaviour as customers switch onto Agile

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

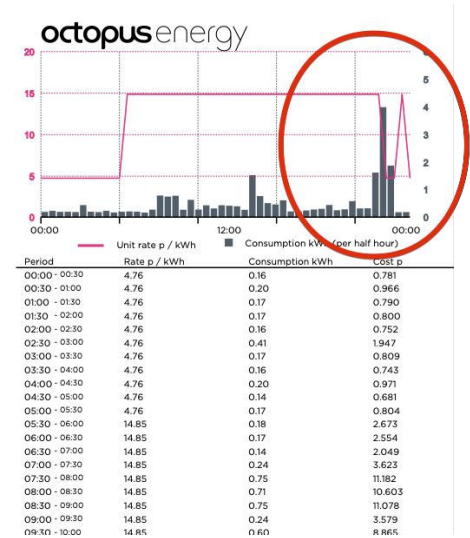
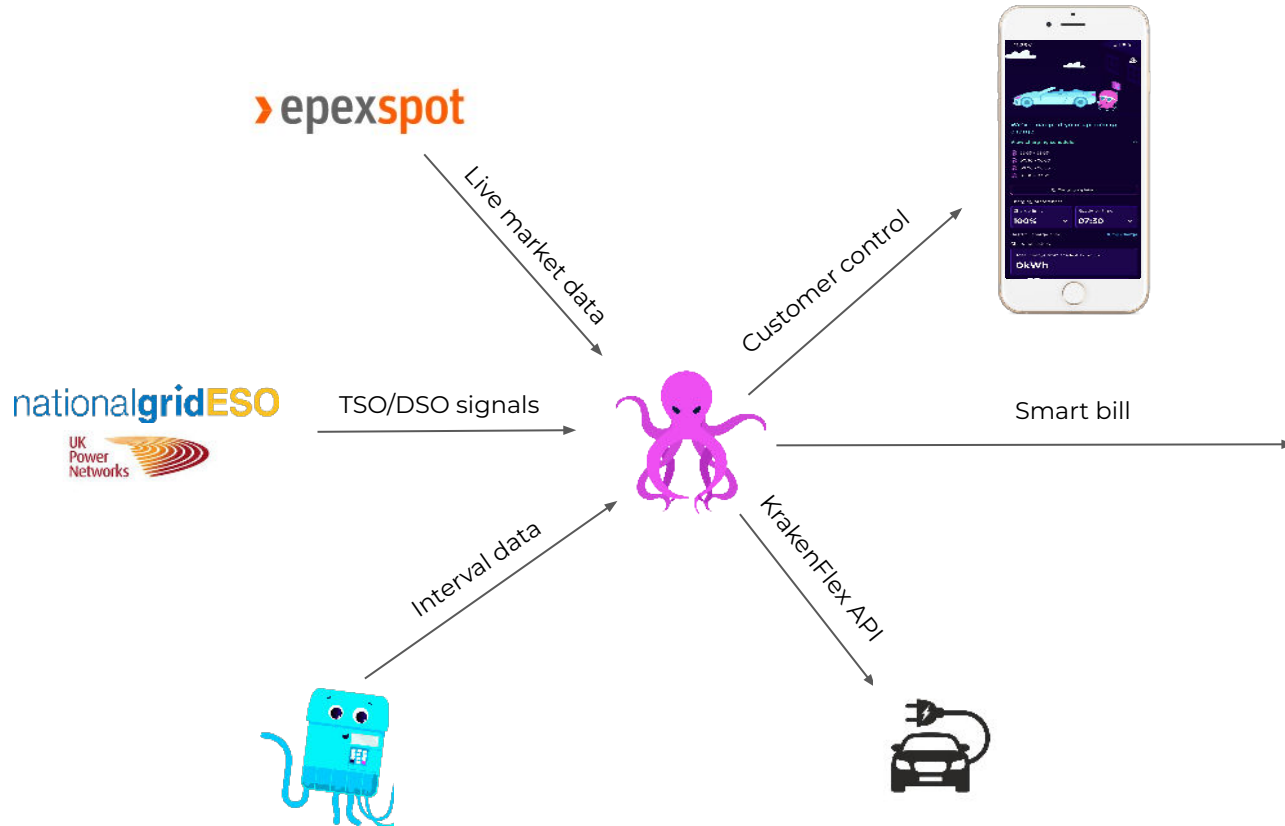


Average consumption in peak, either side of switch

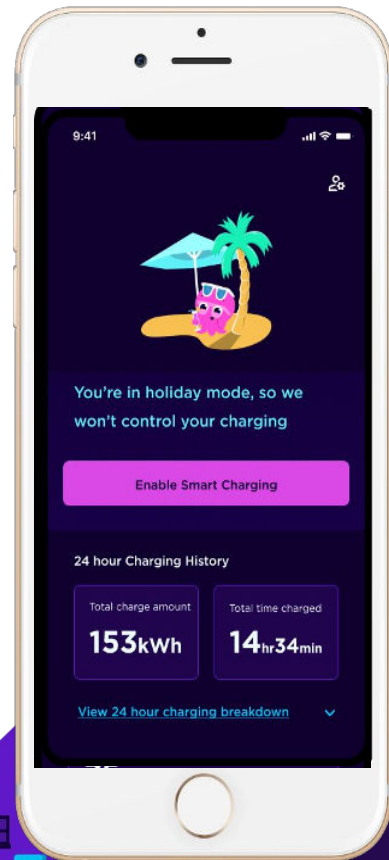
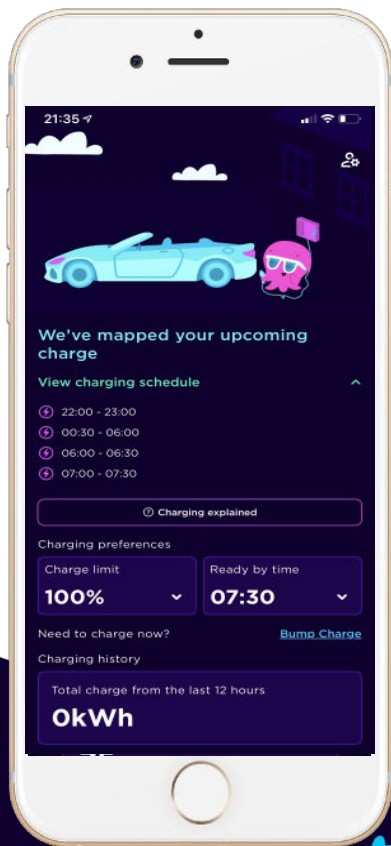
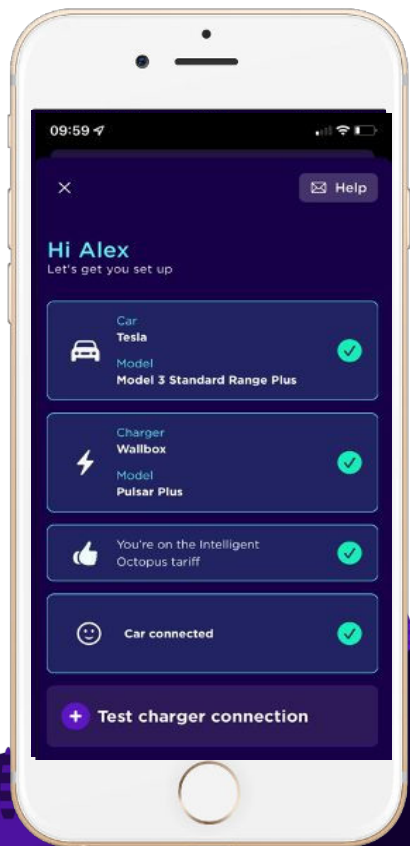


Source: Octopus data

# Intelligent Octopus Dispatchable Dynamic Time of Use



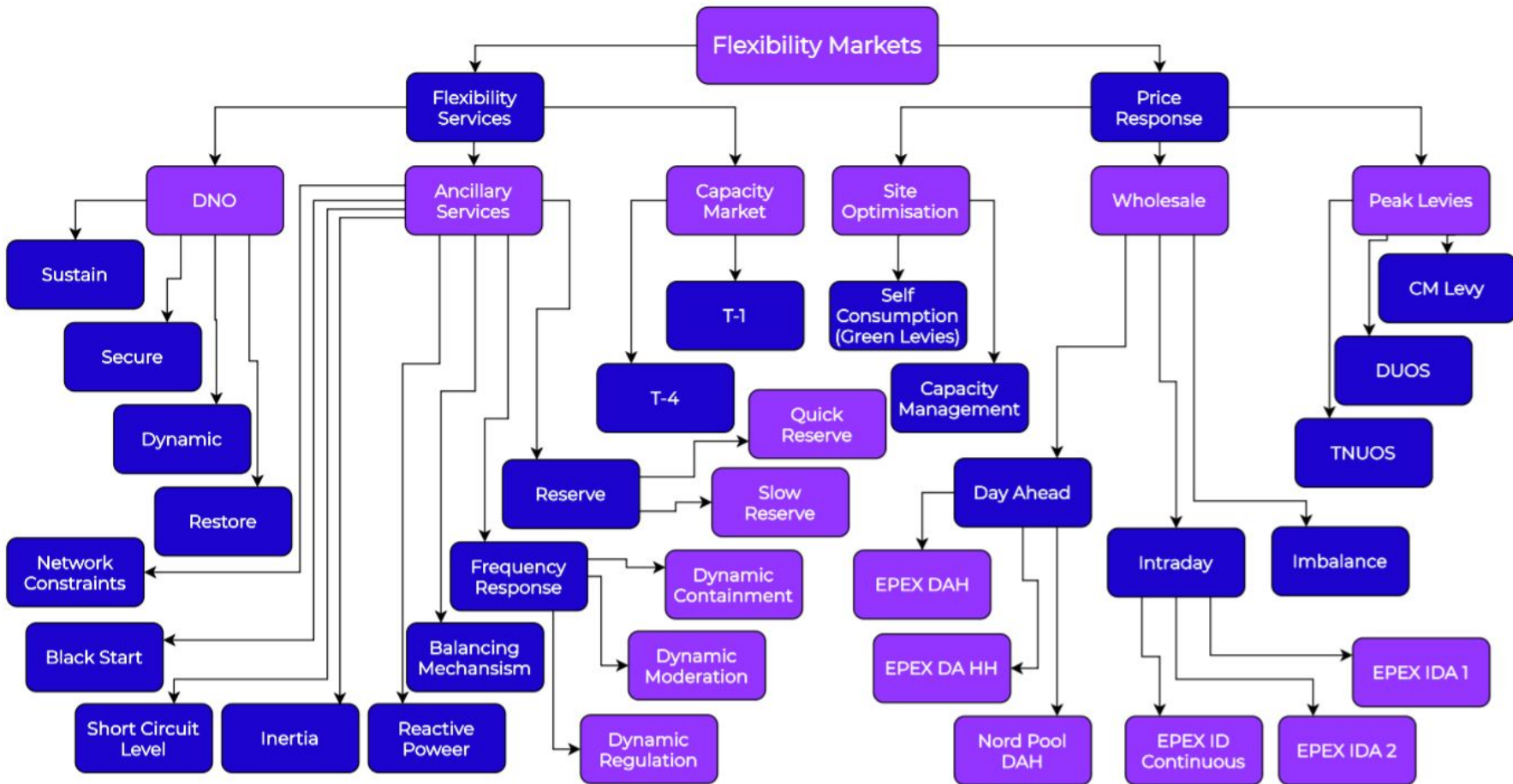
# Intelligent Octopus - ultimate simplicity for users



# 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

