Octopus Energy's competitiveness vs. other market participants' pricing strategies

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19.04.2023

octopus energy

Agenda

1. Case overview
2. Libraries
3. Initial exploration
4. Additional manipulations
5. Research
6. Striking facts
7. Portfolio per company
8. Summary

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Case overview

Task: Analyse OE competitiveness vs. market participants' pricing strategies

Sub-questions:

- Comparison of OE prices to all competitors
  - Any striking patterns?
- Significant differences in competitors' tariffs structure?
  - Any associated risks/chances?
- Generalisation of pricing strategies in competitors' tariffs
  - Additional insights?

Libraries

Initial exploration

NA Check

```
df.isnull().sum().sum()
```

```
0
```

Columns names and their data types

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 96 entries, 0 to 95
Data columns (total 12 columns):
 #   Column                Non-Null Count  Dtype  
---  ------                --------------  -----  
 0   zip_code              96 non-null     int64  
 1   location_name         96 non-null     object 
 2   provider              96 non-null     object 
 3   product               96 non-null     object 
 4   consumption_level_kwh  96 non-null     int64  
 5   agg_cost_year         96 non-null     float64
 6   standing_charge_year  96 non-null     float64
 7   consumption_cost_year  96 non-null     float64
 8   signup_bonus          96 non-null     float64
 9   price_guarantee       96 non-null     int64  
 10  contract_length       96 non-null     int64  
 11  report_date           96 non-null     object 
dtypes: float64(4), int64(4), object(4)
memory usage: 9.1+ KB
```

Numeric values overview

	zip_code	consumption_level_kwh	agg_cost_year	standing_charge_year	consumption_cost_year	signup_bonus	price_guarantee	contract_length
count	96.00	96.00	96.00	96.00	96.00	96.00	96.00	96.00
mean	81671.00	2760.42	1003.91	106.99	1034.84	137.92	14.00	8.33
std	0.00	891.42	244.17	20.25	337.53	143.83	4.50	5.21
min	81671.00	2000.00	697.65	80.27	715.67	0.00	12.00	1.00
25%	81671.00	2000.00	813.76	94.80	747.80	0.00	12.00	1.00
50%	81671.00	2000.00	862.31	98.09	852.20	132.00	12.00	12.00
75%	81671.00	4000.00	1285.49	133.49	1470.30	300.00	12.00	12.00
max	81671.00	4000.00	1416.69	153.80	1667.20	384.00	24.00	12.00

Text values overview

```
df.describe(include=object)
```

	location_name	provider	product	report_date
count	96	96	96	96
unique	1	5	10	16
top	München	Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	2023-03-16
freq	96	32	16	8

Additional manipulations

$$aggregated\ cost/year = standing\ charge/year + consumption\ cost/year - signup\ bonus$$

$$aggregated\ price(per\ kwh) = \frac{aggregated\ cost/year}{consumption\ level} * 100\%$$

$$consumption\ price(per\ kwh) = \frac{consumption\ cost/year}{consumption\ level} * 100\%$$

> 100% if sign-up bonus is higher than standing charge

$$consumption\ cost\ percent = \frac{consumption\ cost/year}{aggregated\ cost/year} * 100\%$$

$$standing\ charge\ percent = \frac{standing\ charge/year}{aggregated\ cost/year} * 100\%$$

$$sign-up\ bonus\ percent = \frac{sign-up\ bonus}{aggregated\ cost/year} * 100\%$$

Data Frame

aggr_per_kwh	consumption_price	standing_charge_percent	consumption_cost_percent	bonus_percent	check1
0.42	0.37	11.60	88.40	0.00	100.00
0.39	0.35	13.22	90.39	3.61	100.00
0.38	0.35	9.85	91.89	1.75	100.00
0.38	0.35	8.34	92.54	0.88	100.00
0.42	0.37	11.60	88.40	0.00	100.00
...	...	...	...	...	...

Code snippets

```
df["aggr_per_kwh"] = df["agg_cost_year"] / df["consumption_level_kwh"]
df["consumption_price"] = df["consumption_cost_year"] / df["consumption_level_kwh"]
df["consumption_cost_percent"] = df["consumption_cost_year"] / df["agg_cost_year"]*100
df["standing_charge_percent"] = df["standing_charge_year"] / df["agg_cost_year"]*100
df["bonus_percent"] = df["signup_bonus"] / df["agg_cost_year"]*100
df["check1"] = df.apply(lambda row: row.standing_charge_percent + row.consumption_cost_percent -row.bonus_percent, axis = 1)
```

Research - Consumption

Providers and their products

```
dfpp = df.groupby(["provider","product"]).count()["zip_code"]
```

provider	product	
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	13
	Spar-Fuxx optimal 123	16
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	16
	OctopusOptimus Strom	10
	OctopusSelect Strom	6
Vattenfall Europe Sales GmbH	Easy12 Strom	6
	Natur12 Strom	8
Yello Strom GmbH	Mein Yello Strom Basic	1
eprimo GmbH	eprimoStrom PrimaKlima	13
	eprimoStrom PrimaKlima Pur	7

Consumption level per provider and products

```
provider_consumption = df.groupby("provider").agg({"consumption_level_kwh":['mean', 'min', 'max']})
provider_consumption
```

provider	consumption_level_kwh		
	min	mean	max
Fuxx-Die Sparenergie GmbH	4000	4000.00	4000
Octopus Energy Germany GmbH	2000	2000.00	2000
Vattenfall Europe Sales GmbH	3000	3000.00	3000
Yello Strom GmbH	3000	3000.00	3000
eprimo GmbH	2000	2000.00	2000

```
prov_prod_consumption = df.groupby(["provider","product"]).agg({"consumption_level_kwh":['mean', 'min', 'max']})
prov_prod_consumption
```

provider	product	consumption_level_kwh		
		min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	4000	4000.00	4000
	Spar-Fuxx optimal 123	4000	4000.00	4000
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	2000	2000.00	2000
	OctopusOptimus Strom	2000	2000.00	2000
	OctopusSelect Strom	2000	2000.00	2000
Vattenfall Europe Sales GmbH	Easy12 Strom	3000	3000.00	3000
	Natur12 Strom	3000	3000.00	3000
Yello Strom GmbH	Mein Yello Strom Basic	3000	3000.00	3000
eprimo GmbH	eprimoStrom PrimaKlima	2000	2000.00	2000
	eprimoStrom PrimaKlima Pur	2000	2000.00	2000

Research – Prices - Products

Standing charge

provider	product	standing_charge_year min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	133.49	133.49	133.49
	Spar-Fuxx optimal 123	133.49	133.49	133.49
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	98.09	98.09	98.09
★	OctopusOptimus Strom	98.09	98.09	98.09
	OctopusSelect Strom	98.09	98.09	98.09
Vattenfall Europe Sales GmbH	Easy12 Strom	94.80	94.80	94.80
	Natur12 Strom	112.80	112.80	112.80
Yello Strom GmbH	Mein Yello Strom Basic	153.80	153.80	153.80
eprimo GmbH	eprimoStrom PrimaKlima	82.65	82.65	82.65
	eprimoStrom PrimaKlima Pur	80.27	80.27	80.27

Consumption price (per kwh)

provider	product	consumption_price min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	0.36	0.37	0.39
	Spar-Fuxx optimal 123	0.37	0.39	0.42
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.36	0.36	0.37
	OctopusOptimus Strom	0.36	0.36	0.36
★	OctopusSelect Strom	0.38	0.38	0.38
Vattenfall Europe Sales GmbH	Easy12 Strom	0.34	0.35	0.35
	Natur12 Strom	0.34	0.34	0.35
Yello Strom GmbH	Mein Yello Strom Basic	0.35	0.35	0.35
eprimo GmbH	eprimoStrom PrimaKlima	0.40	0.41	0.43
	eprimoStrom PrimaKlima Pur	0.39	0.39	0.39

Aggregated price (per kwh)

provider	product	aggr_per_kwh min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	0.32	0.33	0.34
	Spar-Fuxx optimal 123	0.31	0.33	0.35
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.41	0.41	0.42
★	OctopusOptimus Strom	0.41	0.41	0.41
	OctopusSelect Strom	0.43	0.43	0.43
Vattenfall Europe Sales GmbH	Easy12 Strom	0.37	0.37	0.38
	Natur12 Strom	0.37	0.37	0.38
Yello Strom GmbH	Mein Yello Strom Basic	0.39	0.39	0.39
eprimo GmbH	eprimoStrom PrimaKlima	0.35	0.36	0.38
	eprimoStrom PrimaKlima Pur	0.37	0.37	0.37

Sign-up bonus

provider	product	signup_bonus min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	289.00	298.69	309.00
	Spar-Fuxx optimal 123	344.00	359.19	384.00
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.00	0.00	0.00
★	OctopusOptimus Strom	0.00	0.00	0.00
	OctopusSelect Strom	0.00	0.00	0.00
Vattenfall Europe Sales GmbH	Easy12 Strom	10.00	10.00	10.00
	Natur12 Strom	20.00	26.25	30.00
Yello Strom GmbH	Mein Yello Strom Basic	42.02	42.02	42.02
eprimo GmbH	eprimoStrom PrimaKlima	162.00	182.62	192.00
	eprimoStrom PrimaKlima Pur	132.00	132.00	132.00

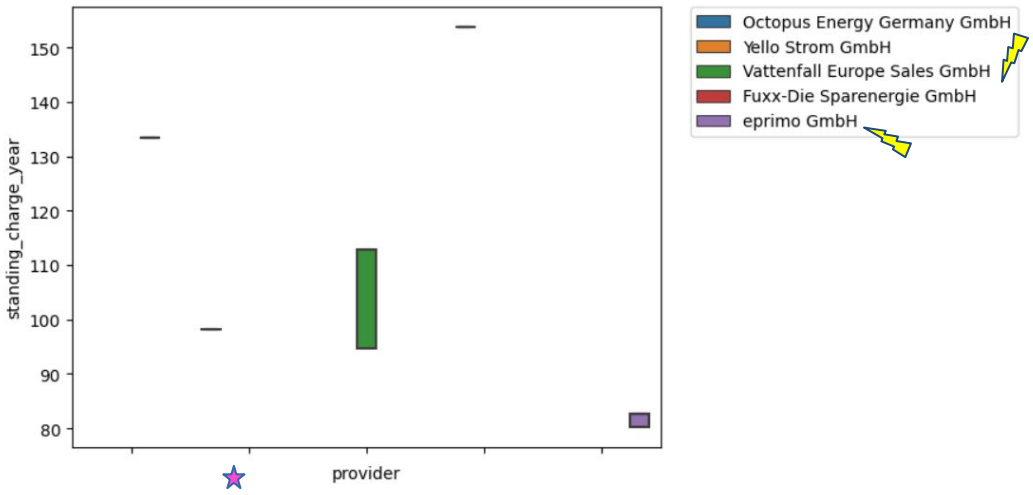
Consumption cost

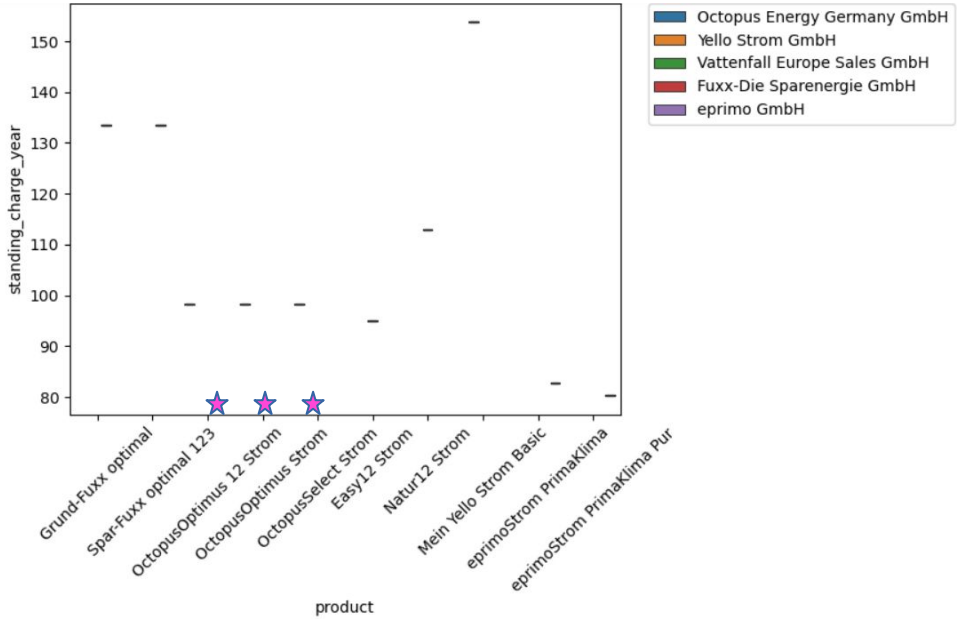
provider	product	consumption_cost_year min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	1442.80	1490.86	1544.00
	Spar-Fuxx optimal 123	1467.20	1543.45	1667.20
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	715.67	727.72	747.80
★	OctopusOptimus Strom	728.04	728.04	728.04
	OctopusSelect Strom	764.22	764.22	764.22
Vattenfall Europe Sales GmbH	Easy12 Strom	1022.10	1037.10	1052.10
	Natur12 Strom	1022.10	1033.35	1052.10
Yello Strom GmbH	Mein Yello Strom Basic	1051.20	1051.20	1051.20
eprimo GmbH	eprimoStrom PrimaKlima	799.00	823.55	852.20
	eprimoStrom PrimaKlima Pur	787.40	787.40	787.40

Aggregated cost

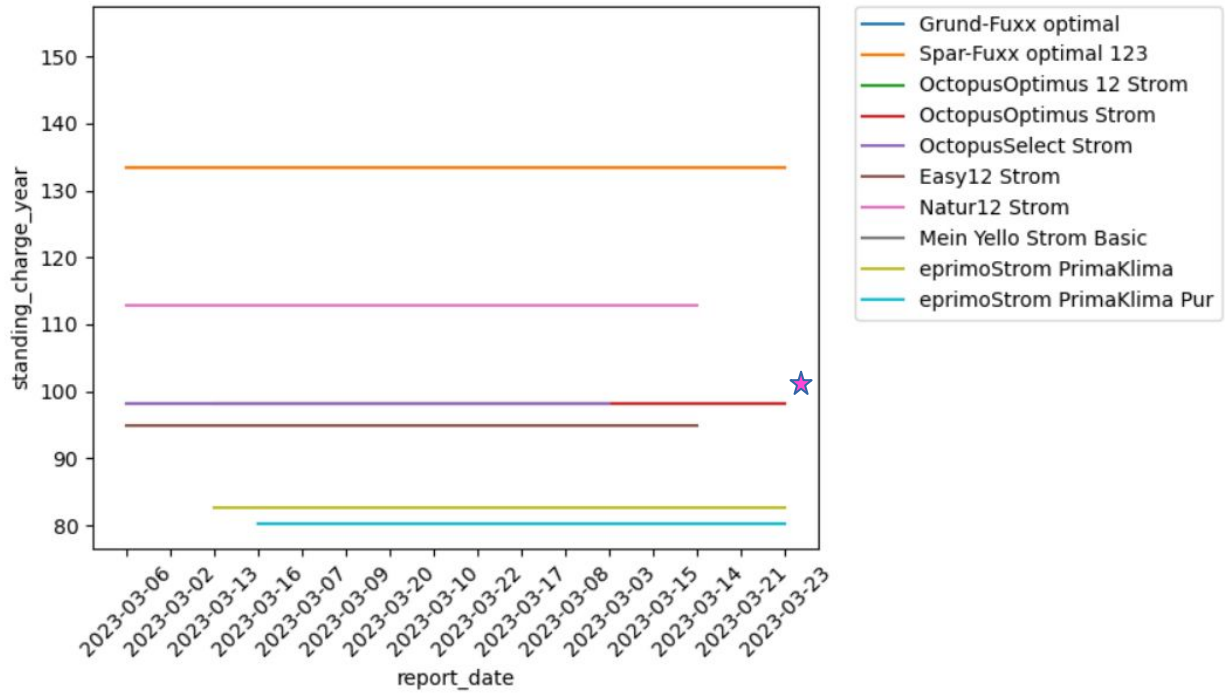
provider	product	agg_cost_year min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	1287.29	1325.66	1368.49
	Spar-Fuxx optimal 123	1256.69	1317.75	1416.69
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	813.76	825.81	845.89
★	OctopusOptimus Strom	826.13	826.13	826.13
	OctopusSelect Strom	862.31	862.31	862.31
Vattenfall Europe Sales GmbH	Easy12 Strom	1106.90	1121.90	1136.90
	Natur12 Strom	1104.90	1119.90	1144.90
Yello Strom GmbH	Mein Yello Strom Basic	1162.98	1162.98	1162.98
eprimo GmbH	eprimoStrom PrimaKlima	697.65	723.59	750.85
	eprimoStrom PrimaKlima Pur	735.67	735.67	735.67

Research – Standing Charge

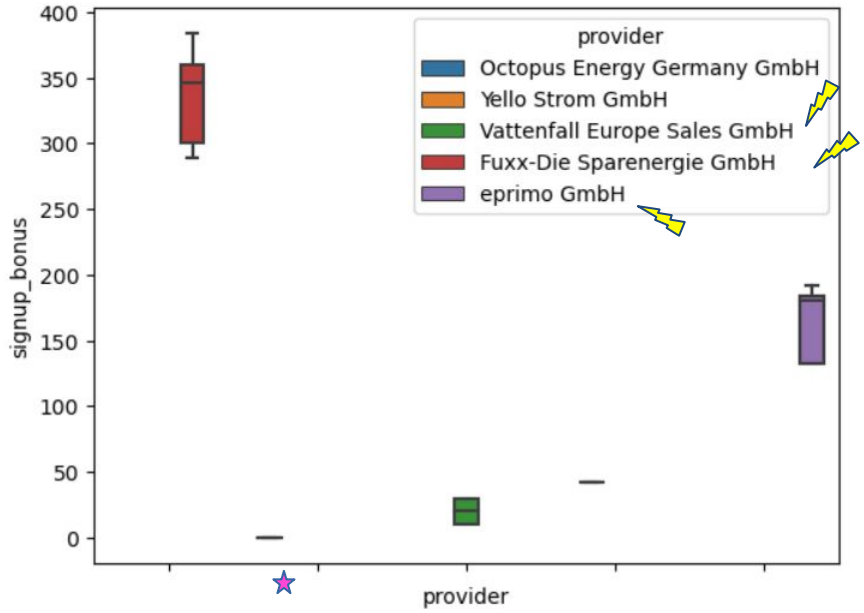


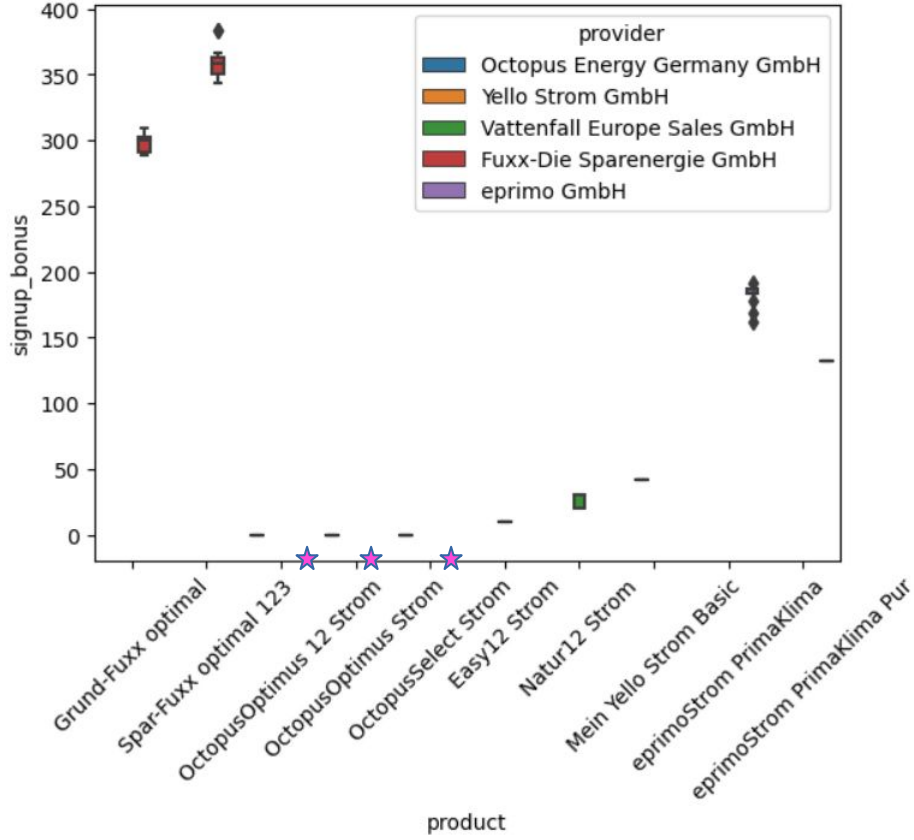


Research – Standing Charge Fluctuations

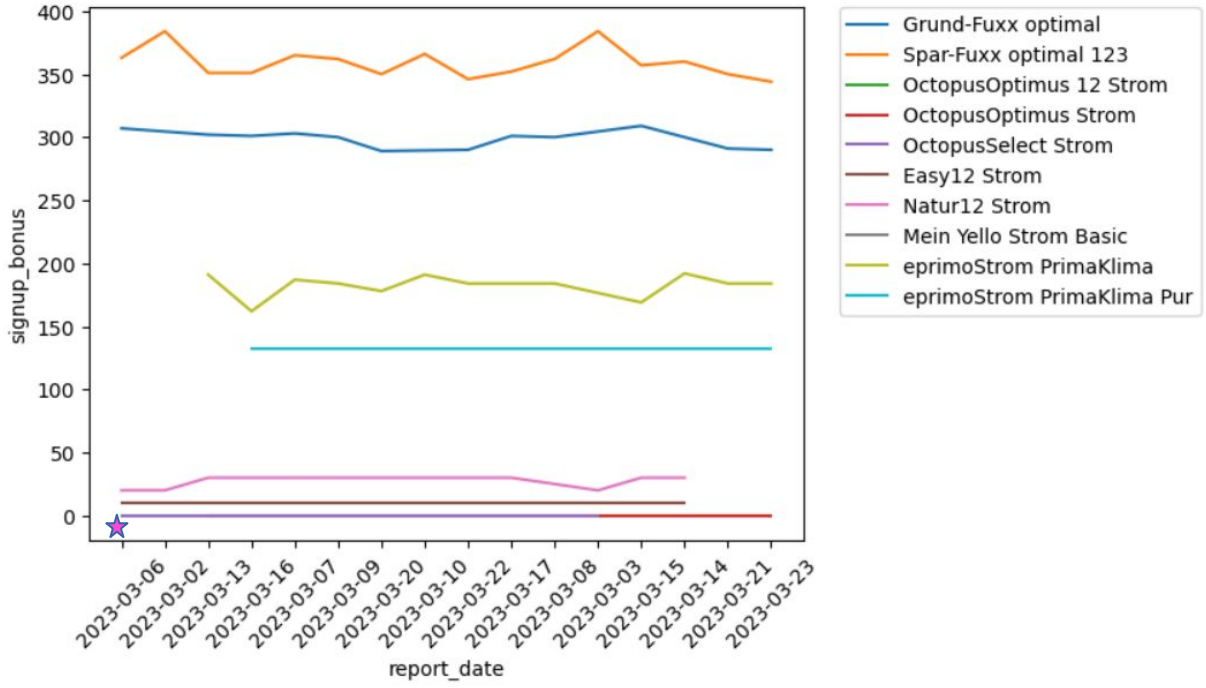


Research – Sign-up Bonus





Research – Sign-up Bonus Fluctuations



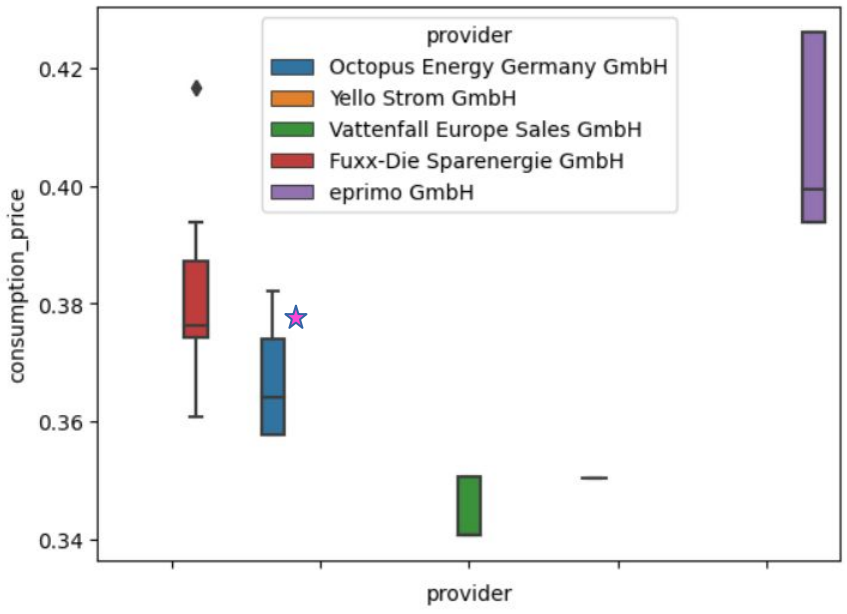
Changes in sign-up bonus over time:

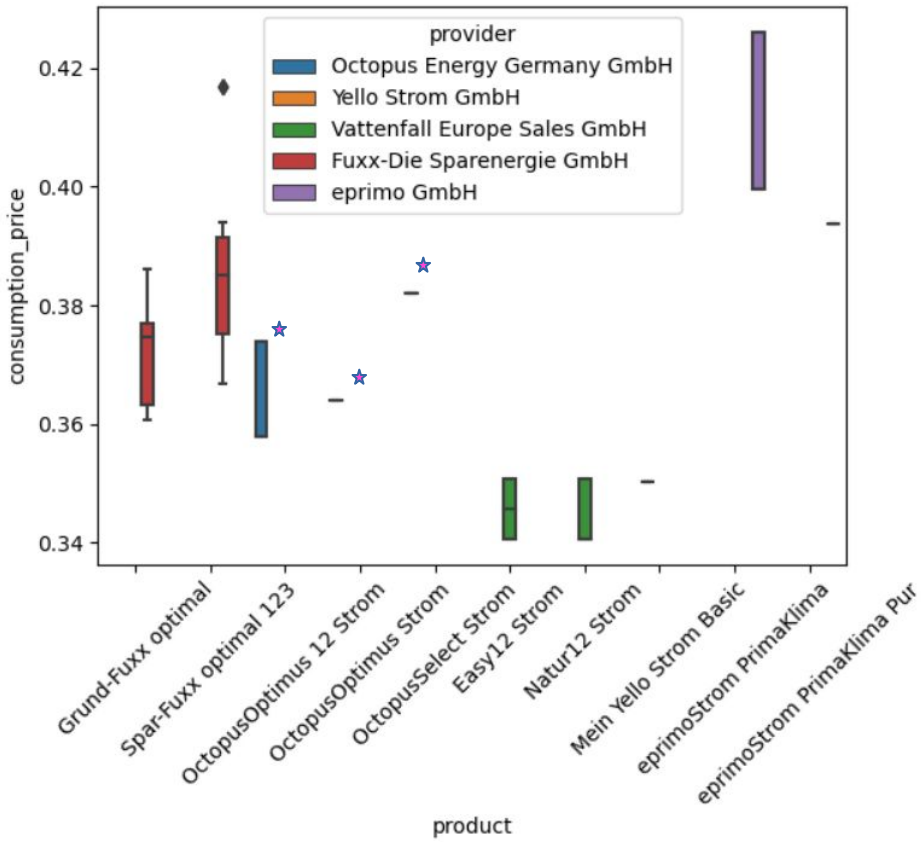
- "Grund-Fuxx optimal"
- "Spar-Fuxx optimal 123"
- "Natur12 Strom"
- "eprimoStrom PrimaKlima"

No changes in sign-up bonus over time:

- "Easy12 Strom"
- "Mein Yello Strom Basic"
- "eprimoStrom PrimaKlima"

Research – Consumption Price

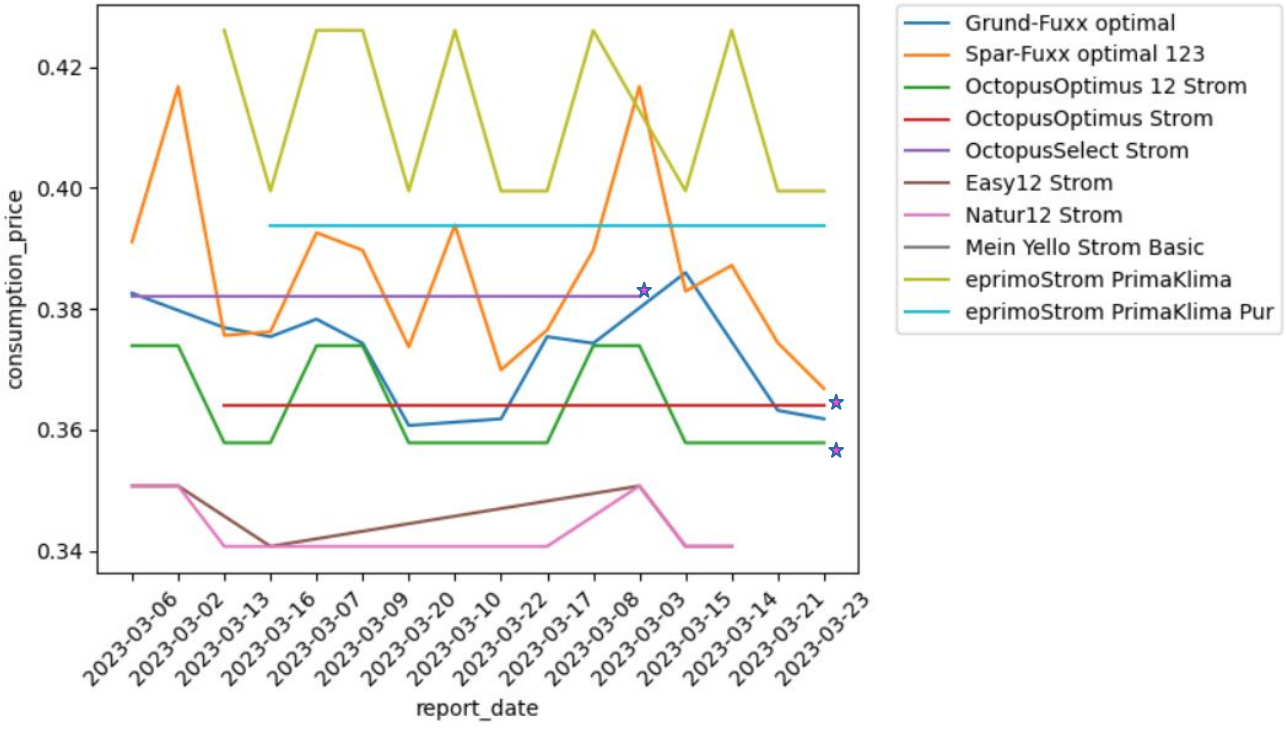




Fuxx consumption price outliers
Before 4th March – higher bonus

provider	product	signup_bonus	report_date	aggr_per_kwh	consumption_price
Fuxx-Die Sparenergie GmbH	Spar-Fuxx optimal 123	384.00	2023-03-02	0.35	0.42
Fuxx-Die Sparenergie GmbH	Spar-Fuxx optimal 123	384.00	2023-03-03	0.35	0.42

Research – Consumption Price Fluctuations



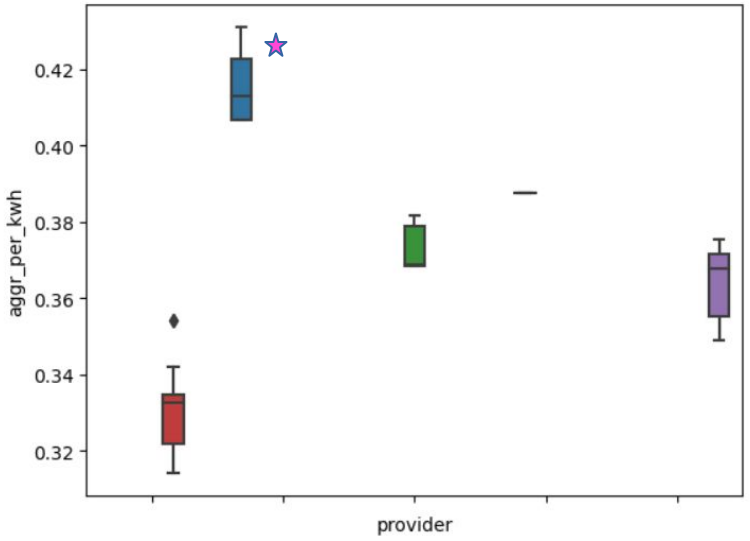
Changes in consumption price over time:

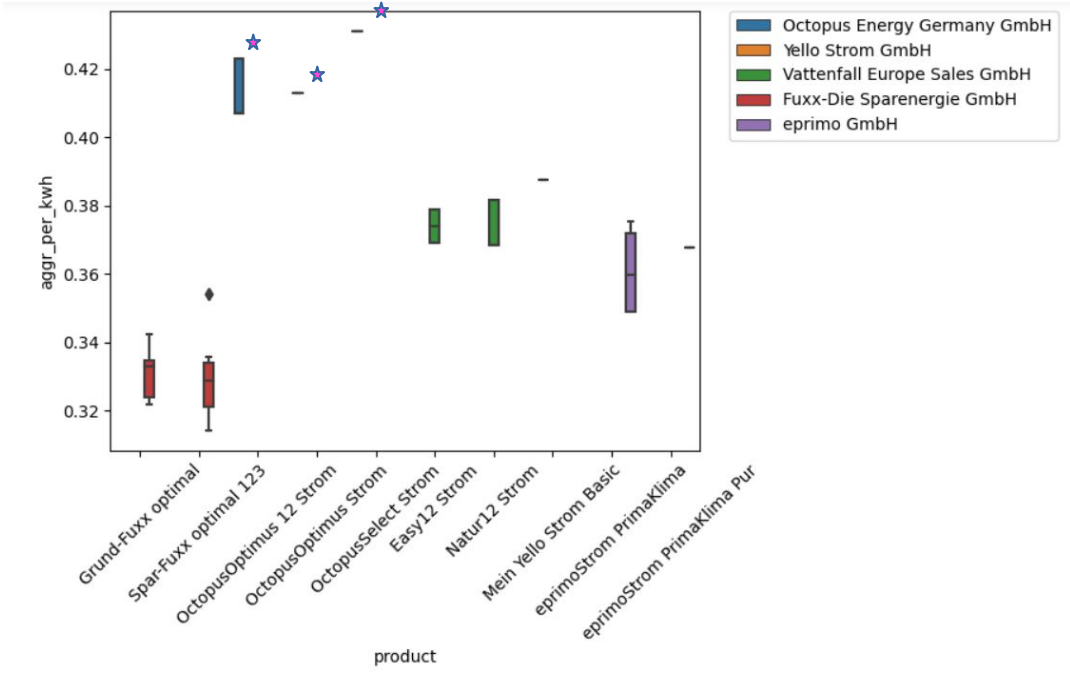
- "Grund-Fuxx optimal"
- "Spar-Fuxx optimal 123"
- "OctopusOptimus 12 Strom"
- "Easy12 Strom"
- "Natur12 Strom"
- "Mein Yello Strom Basic"
- "eprimoStrom PrimaKlima Pur"

No changes in consumption price over time:

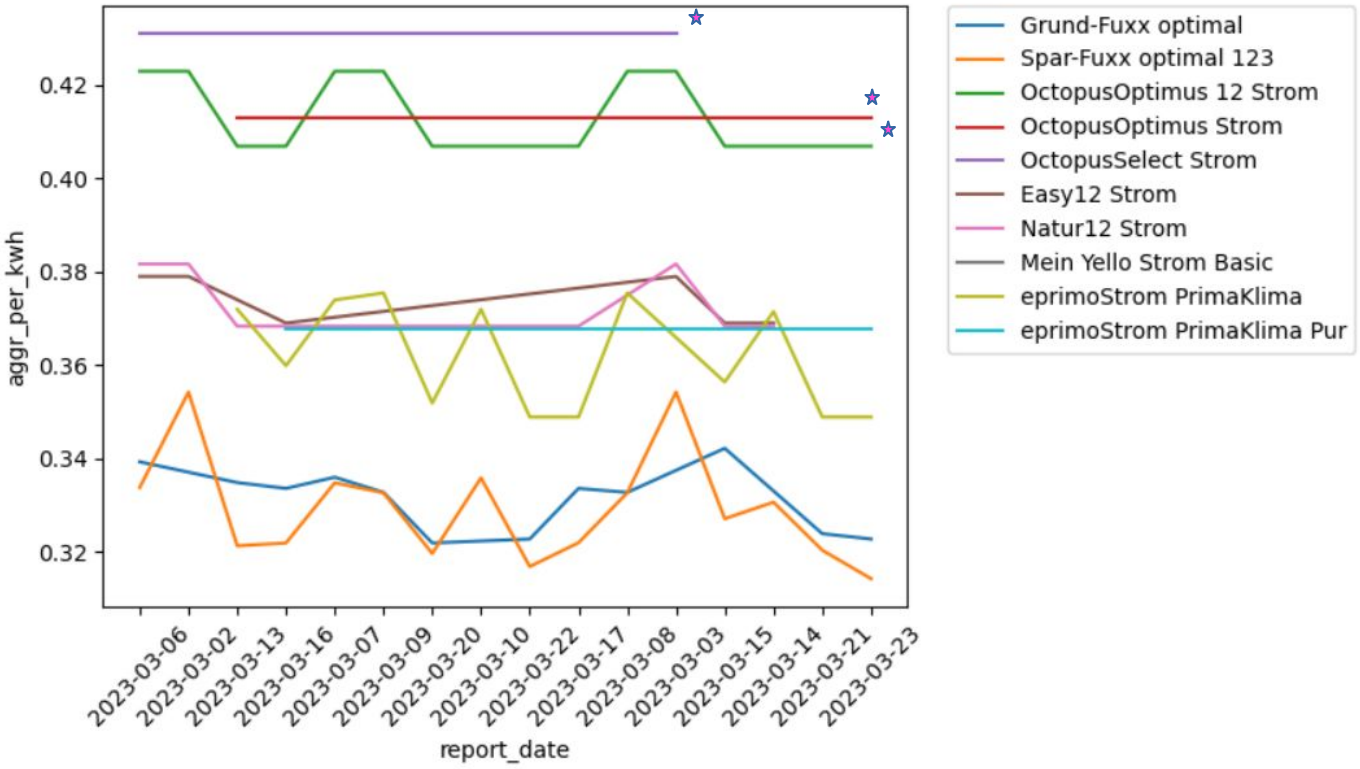
- "OctopusOptimus Strom"
- "OctopusSelect Strom"
- "eprimoStrom PrimaKlima Pur"

Research – Aggregate Price





Research – Aggregate Price Fluctuations



Changes in aggregate price over time:

- "Grund-Fuxx optimal"
- "Spar-Fuxx optimal 123"
- "OctopusOptimus 12 Strom"
- "Easy12 Strom"
- "Natur12 Strom"
- "Mein Yello Strom Basic"
- "eprimoStrom PrimaKlima Pur"

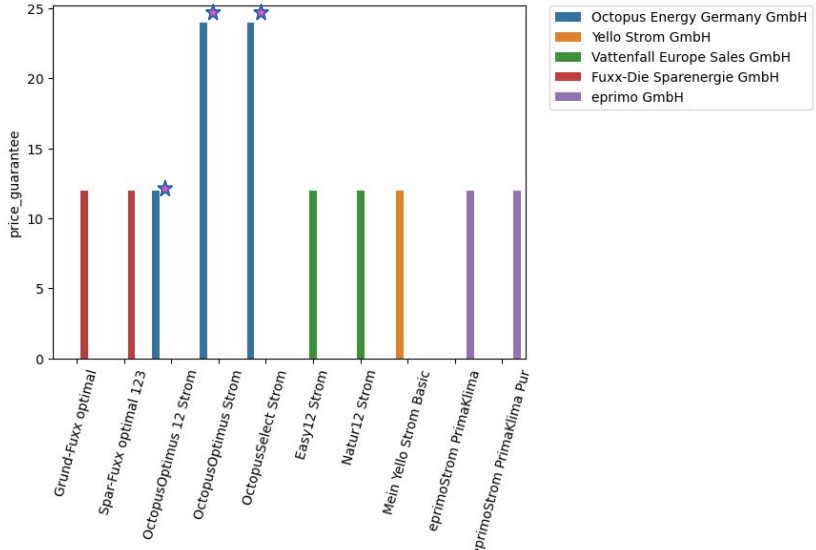
No changes in aggregate price over time:

- "OctopusOptimus Strom"
- "OctopusSelect Strom"
- "eprimoStrom PrimaKlima Pur"

Research – Extra variables

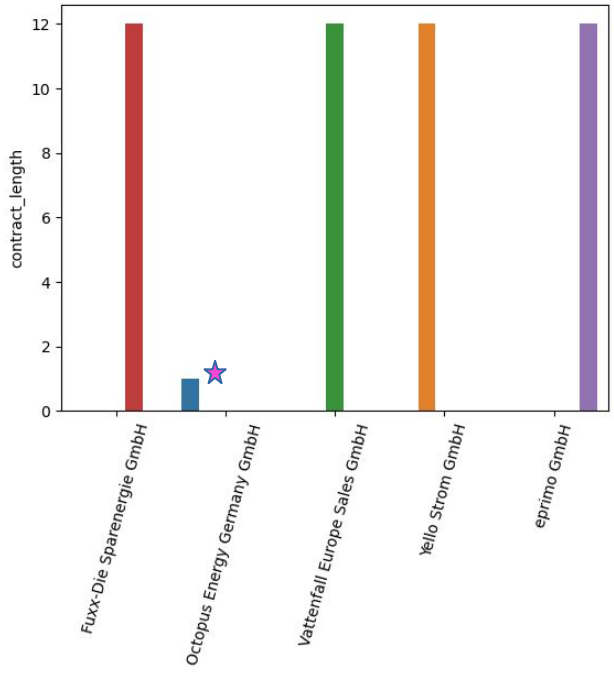
Price guarantee

provider	product	min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	12	12.00	12
	Spar-Fuxx optimal 123	12	12.00	12
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	12	12.00	12
	OctopusOptimus Strom	24	24.00	24
	OctopusSelect Strom	24	24.00	24
Vattenfall Europe Sales GmbH	Easy12 Strom	12	12.00	12
	Natur12 Strom	12	12.00	12
Yello Strom GmbH	Mein Yello Strom Basic	12	12.00	12
eprimo GmbH	eprimoStrom PrimaKlima	12	12.00	12
	eprimoStrom PrimaKlima Pur	12	12.00	12



Contract length

provider	contract_length min	contract_length mean	contract_length max
Fuxx-Die Sparenergie GmbH	12	12.00	12
Octopus Energy Germany GmbH	1	1.00	1
Vattenfall Europe Sales GmbH	12	12.00	12
Yello Strom GmbH	12	12.00	12
eprimo GmbH	12	12.00	12



Research – Correlations

Contract length

	agg_cost_year	standing_charge_year	consumption_cost_year	signup_bonus	price_guarantee	contract_length
agg_cost_year	1.00	0.93 ★	0.95 ★	0.66 ★	-0.30	0.50
standing_charge_year	0.93 ★	1.00	0.88 ★	0.63 ★	-0.20	0.31
consumption_cost_year	0.95 ★	0.88 ★	1.00	0.86 ★	-0.39	0.63 ★
signup_bonus	0.66 ★	0.63 ★	0.86 ★	1.00	-0.43	0.68 ★
price_guarantee	-0.30	-0.20	-0.39	-0.43	1.00	-0.63 ★
contract_length	0.50	0.31	0.63 ★	0.68 ★	-0.63 ★	1.00

Research – Pricing percentages

Standing charge

```
prov_prod_st_ratio = df.groupby(["provider","product"]).agg({"standing_charge_percent":['mean', 'min', 'max']})
prov_prod_st_ratio
```

provider	product	standing_charge_percent		
		min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	9.75	10.07	10.37
	Spar-Fuxx optimal 123	9.42	10.14	10.62
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	11.60	11.88	12.05
	★ OctopusOptimus Strom	11.87	11.87	11.87
	OctopusSelect Strom	11.38	11.38	11.38
Vattenfall Europe Sales GmbH	Easy12 Strom	8.34	8.45	8.56
	Natur12 Strom	9.85	10.08	10.21
Yello Strom GmbH	Mein Yello Strom Basic	13.22	13.22	13.22
eprimo GmbH	eprimoStrom PrimaKlima	11.01	11.43	11.85
	eprimoStrom PrimaKlima Pur	10.91	10.91	10.91

Sign-up bonus

```
prov_prod_bonus_ratio = df.groupby(["provider","product"]).agg({"bonus_percent":['mean', 'min', 'max']})
prov_prod_bonus_ratio
```

provider	product	bonus_percent		
		min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	22.45	22.53	22.63
	Spar-Fuxx optimal 123	27.11	27.26	27.38
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.00	0.00	0.00
	★ OctopusOptimus Strom	0.00	0.00	0.00
	OctopusSelect Strom	0.00	0.00	0.00
Vattenfall Europe Sales GmbH	Easy12 Strom	0.88	0.89	0.90
	Natur12 Strom	1.75	2.35	2.72
Yello Strom GmbH	Mein Yello Strom Basic	3.61	3.61	3.61
eprimo GmbH	eprimoStrom PrimaKlima	22.51	25.25	26.37
	eprimoStrom PrimaKlima Pur	17.94	17.94	17.94

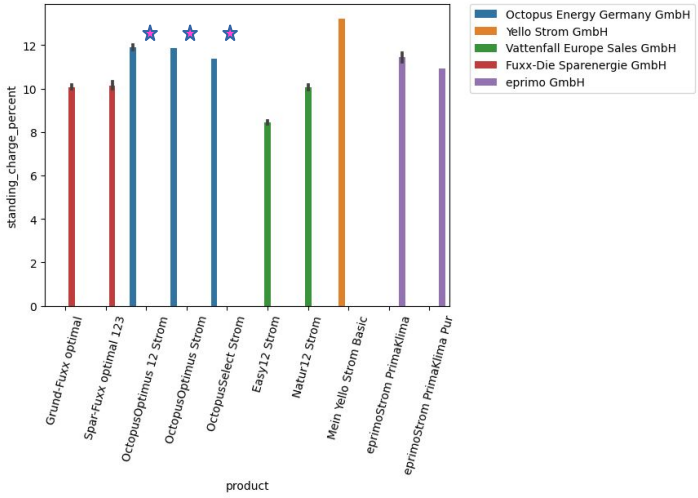
Consumption cost

provider	product	consumption_cost_percent		
		min	mean	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	112.08	112.46	112.83
	Spar-Fuxx optimal 123	116.75	117.12	117.68
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	87.95	88.12	88.40
	★ OctopusOptimus Strom	88.13	88.13	88.13
	OctopusSelect Strom	88.62	88.62	88.62
Vattenfall Europe Sales GmbH	Easy12 Strom	92.34	92.44	92.54
	Natur12 Strom	91.89	92.28	92.51
Yello Strom GmbH	Mein Yello Strom Basic	90.39	90.39	90.39
eprimo GmbH	eprimoStrom PrimaKlima	111.03	113.82	114.72
	eprimoStrom PrimaKlima Pur	107.03	107.03	107.03

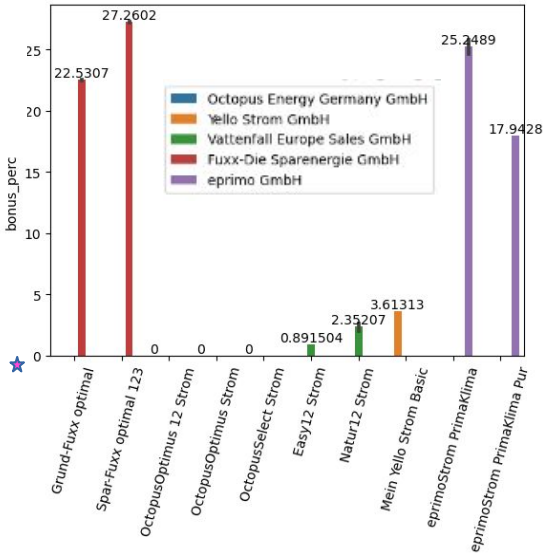
```
prov_prod_cons_cost_ratio = df.groupby(["provider","product"]).agg({"consumption_cost_percent":['mean', 'min', 'max']})
prov_prod_cons_cost_ratio
```

Research – Pricing percentages

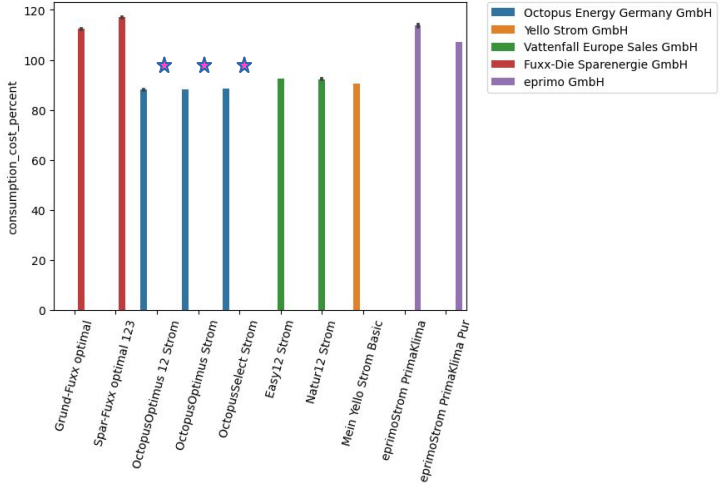
Standing charge



Sign-up bonus



Consumption cost



Striking facts

General level

- Fixed consumption levels by all providers
  - (no variability among tariffs)

provider	consumption_level_kwh mean	min	max
Fuxx-Die Sparenergie GmbH	4000.0	4000	4000
Octopus Energy Germany GmbH	2000.0	2000	2000
Vattenfall Europe Sales GmbH	3000.0	3000	3000
Yello Strom GmbH	3000.0	3000	3000
eprimo GmbH	2000.0	2000	2000

provider	product	signup_bonus mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	298.692308	289.00	309.00
	Spar-Fuxx optimal 123	359.187500	344.00	384.00
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.000000	0.00	0.00
	OctopusOptimus Strom	0.000000	0.00	0.00
	OctopusSelect Strom	0.000000	0.00	0.00
Vattenfall Europe Sales GmbH	Easy12 Strom	10.000000	10.00	10.00
	Natur12 Strom	26.250000	20.00	30.00
Yello Strom GmbH	Mein Yello Strom Basic	42.020000	42.02	42.02
eprimo GmbH	eprimoStrom PrimaKlima	182.615385	162.00	192.00
	eprimoStrom PrimaKlima Pur	132.000000	132.00	132.00

provider	product	standing_charge_year mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	133.49	133.49	133.49
	Spar-Fuxx optimal 123	133.49	133.49	133.49
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	98.09	98.09	98.09
	OctopusOptimus Strom	98.09	98.09	98.09
	OctopusSelect Strom	98.09	98.09	98.09
Vattenfall Europe Sales GmbH	Easy12 Strom	94.80	94.80	94.80
	Natur12 Strom	112.80	112.80	112.80
Yello Strom GmbH	Mein Yello Strom Basic	153.80	153.80	153.80
eprimo GmbH	eprimoStrom PrimaKlima	82.65	82.65	82.65
	eprimoStrom PrimaKlima Pur	80.27	80.27	80.27

OE level

- No sign-up bonus
  - Same strategy – X
- Min. contract length – 1 month
  - Same strategy – X
- 2 tariffs with 24 months price guarantee
  - Same strategy – X
- Fixed standing charges among tariffs
  - Same strategy - Fuxx, Yello (?)

provider	product	price_guarantee mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	12.0	12	12
	Spar-Fuxx optimal 123	12.0	12	12
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	12.0	12	12
	OctopusOptimus Strom	24.0	24	24
	OctopusSelect Strom	24.0	24	24
Vattenfall Europe Sales GmbH	Easy12 Strom	12.0	12	12
	Natur12 Strom	12.0	12	12
Yello Strom GmbH	Mein Yello Strom Basic	12.0	12	12
eprimo GmbH	eprimoStrom PrimaKlima	12.0	12	12
	eprimoStrom PrimaKlima Pur	12.0	12	12

provider	contract_length mean	min	max
Fuxx-Die Sparenergie GmbH	12.0	12	12
Octopus Energy Germany GmbH	1.0	1	1
Vattenfall Europe Sales GmbH	12.0	12	12
Yello Strom GmbH	12.0	12	12
eprimo GmbH	12.0	12	12

Eprimo GmbH

provider	product	consumption_price mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	0.372715	0.360700	0.38600
	Spar-Fuxx optimal 123	0.385862	0.366800	0.41680
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.363859	0.357835	0.37390
★	OctopusOptimus Strom	0.364020	0.364020	0.36402
	OctopusSelect Strom	0.382110	0.382110	0.38211
Vattenfall Europe Sales GmbH	Easy12 Strom	0.345700	0.340700	0.35070
	Natur12 Strom	0.344450	0.340700	0.35070
Yello Strom GmbH	Mein Yello Strom Basic	0.350400	0.350400	0.35040
eprimo GmbH	eprimoStrom PrimaKlima	0.411777	0.399500	0.42610
	eprimoStrom PrimaKlima Pur	0.393700	0.393700	0.39370

- The only provider with 2000 kwh consumption level
  - Others operate on higher consumption levels

OE vs. eprimo

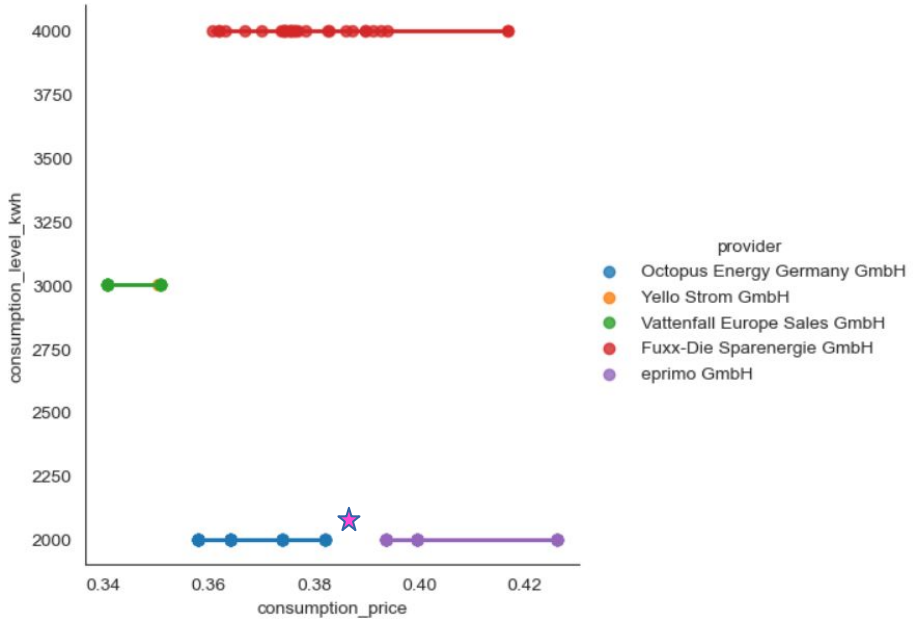
No direct comparison with other providers possible as consumption levels differ drastically

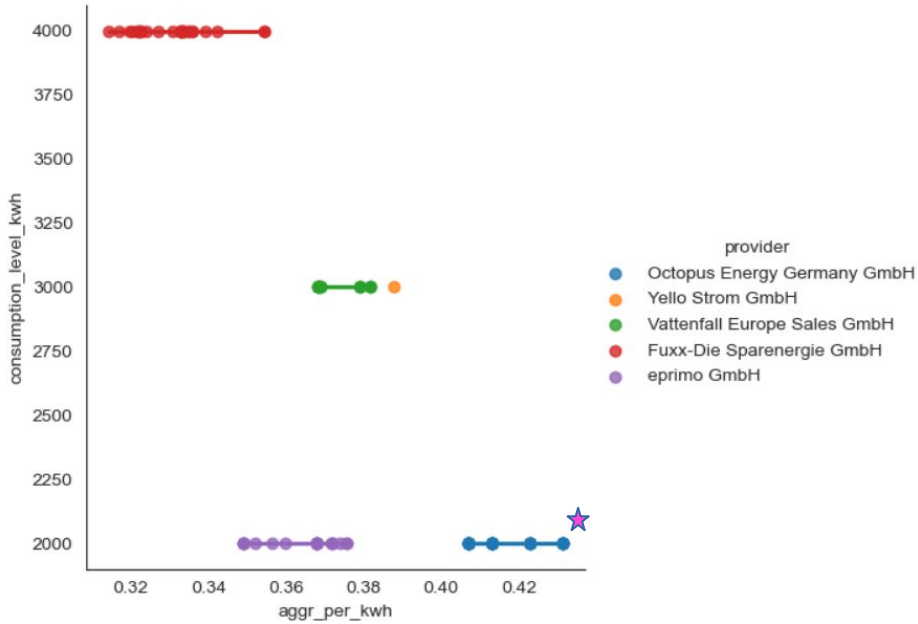
- OE
  - Lower consumption price
- Eprimo
  - Higher standing charge
  - Sign-up bonus
  - Lower aggregated costs

provider	product	signup_bonus mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	298.692308	289.00	309.00
	Spar-Fuxx optimal 123	359.187500	344.00	384.00
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.000000	0.00	0.00
★	OctopusOptimus Strom	0.000000	0.00	0.00
	OctopusSelect Strom	0.000000	0.00	0.00
Vattenfall Europe Sales GmbH	Easy12 Strom	10.000000	10.00	10.00
	Natur12 Strom	26.250000	20.00	30.00
Yello Strom GmbH	Mein Yello Strom Basic	42.020000	42.02	42.02
eprimo GmbH	eprimoStrom PrimaKlima	182.615385	162.00	192.00
	eprimoStrom PrimaKlima Pur	132.000000	132.00	132.00

provider	product	standing_charge_year mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	133.49	133.49	133.49
	Spar-Fuxx optimal 123	133.49	133.49	133.49
★ Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	98.09	98.09	98.09
	OctopusOptimus Strom	98.09	98.09	98.09
	OctopusSelect Strom	98.09	98.09	98.09
Vattenfall Europe Sales GmbH	Easy12 Strom	94.80	94.80	94.80
	Natur12 Strom	112.80	112.80	112.80
Yello Strom GmbH	Mein Yello Strom Basic	153.80	153.80	153.80
eprimo GmbH	eprimoStrom PrimaKlima	82.65	82.65	82.65
	eprimoStrom PrimaKlima Pur	80.27	80.27	80.27

provider	product	aggr_per_kwh mean	min	max
Fuxx-Die Sparenergie GmbH	Grund-Fuxx optimal	0.331415	0.321823	0.342122
	Spar-Fuxx optimal 123	0.329438	0.314173	0.354173
Octopus Energy Germany GmbH	OctopusOptimus 12 Strom	0.412904	0.406880	0.422945
★	OctopusOptimus Strom	0.413065	0.413065	0.413065
	OctopusSelect Strom	0.431155	0.431155	0.431155
Vattenfall Europe Sales GmbH	Easy12 Strom	0.373967	0.368967	0.378967
	Natur12 Strom	0.373300	0.368300	0.381633
Yello Strom GmbH	Mein Yello Strom Basic	0.387660	0.387660	0.387660
eprimo GmbH	eprimoStrom PrimaKlima	0.361794	0.348825	0.375425
	eprimoStrom PrimaKlima Pur	0.367835	0.367835	0.367835


consumption_level_kwh
4000
3750
3500
3250
3000
2750
2500
2250
2000
0.34
0.36
0.38
0.40
0.42
consumption_price
provider
Octopus Energy Germany GmbH
Yello Strom GmbH
Vattenfall Europe Sales GmbH
Fuxx-Die Sparenergie GmbH
eprimo GmbH


consumption_level_kwh
4000
3750
3500
3250
3000
2750
2500
2250
2000
0.32
0.34
0.36
0.38
0.40
0.42
aggr_per_kwh
provider
Octopus Energy Germany GmbH
Yello Strom GmbH
Vattenfall Europe Sales GmbH
Fuxx-Die Sparenergie GmbH
eprimo GmbH

Task: Analyse OE competitiveness vs. market participants' pricing strategies

- Comparison of OE prices to all competitors

Octopus Energy

- Lowest operating consumption level (2000 kwh)
- 3 tariff lines
- Medium consumption price
- 2nd lowest standing charge
- 0 sign-up bonus

Highest aggregated price

- *Consumption price variations among and within tariffs*
- *2 tariffs with no changes in aggregate price (price guarantee)*

Task: Analyse OE competitiveness vs. market participants' pricing strategies

- Generalisation of pricing strategies in competitors' tariffs

Fuxx

- Highest operating consumption level (4000 kwh)
  → (highest consumption and aggregated costs – irrelevant)

- 2 tariff lines

- 2nd highest consumption price
- 2nd highest standing charge
- Highest sign-up bonus

Lowest aggregated price

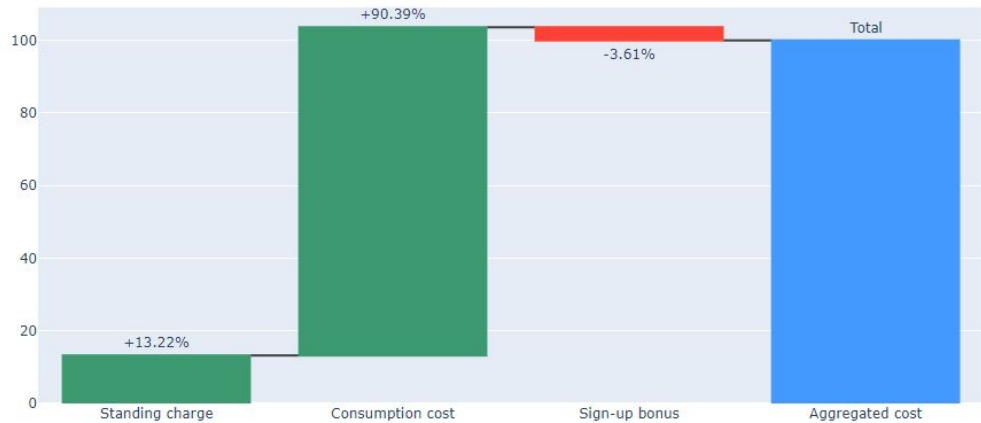
- *Bonus variations among and within tariffs*
- *Consumption price variations among and within tariffs*

Task: Analyse OE competitiveness vs. market participants' pricing strategies

- Generalisation of pricing strategies in competitors' tariffs

Yello

- Medium operating consumption level (3000 kwh)
- 1 tariff line
- 2nd lowest consumption price
- Highest standing charge
- Medium sign-up bonus



2nd highest aggregated price

- *No extraction of additional information possible*

Task: Analyse OE competitiveness vs. market participants' pricing strategies

- Generalisation of pricing strategies in competitors' tariffs

Vattenfall

- Medium operating consumption level (3000 kwh)
- 2 tariff lines
- Lowest consumption price
- Medium standing charge
- 2nd lowest sign-up bonus

Medium aggregated price

- *Standing charge variations among tariffs*
- *Bonus variations among and within tariffs*
- *Consumption price variations among and within tariffs*

Task: Analyse OE competitiveness vs. market participants' pricing strategies

- Generalisation of pricing strategies in competitors' tariffs

eprimo

- Low operating consumption level (2000 kwh)
- 2 tariff lines
- Highest consumption price
- Lowest standing charge
- 2nd highest bonus

2nd lowest aggregated price

- *Standing charge variations among tariffs*
- *Bonus variations among and within tariffs*
- *Consumption price variations among and within tariffs*
- *1 tariff with no changes in aggregate price*

Task: Analyse OE competitiveness vs. market participants' pricing strategies

- Significant differences in competitors' tariffs structure?
  - Any associated risks/chances?

Risks ● "Sudden" outflow of clients ○ newer / cheaper alternative ● Riskier long-term planning	***Risks*** ● Unpredicted price increase ○ tech, logistics, regulations	***Risks*** ● Inaccurate calculation
min. of 1 month contracts duration	***24 months price guarantee***	***Bonus***
Opportunities ● Effective customer attraction ○ flexibility ○ temporary solutions	***Opportunities*** ● Most attractive offer on the market ● Price decrease ○ tech, logistics, regulations ● More predictable long-term planning	***Opportunities*** ● Customer acquisition ● Flexibility in pricing ● Increased revenue in following periods
Balance between "unexpected" fluctuations & unique offer attractive to clients	*R&D* *Comparison with 12 months guarantees*	*Analysis*

OE level

• eprimo - niche competitor
• USPs:
  ○ 1 month min. contract length
  ○ 24 months price guarantee
• Variability of consumption price

Ideas

• Higher consumption level entry
• Standing charge variability decrease
• Sign-up bonus (one-off)
• More pricing variability
  ○ structure
  ○ time
• Importance of analytics and R&D

octopus energy

Thank you:)

octopus energy