

Active consumer participation is key to driving the energy transition: how can it happen?

2024 Retail Market Monitoring Report

ACER-CEER webinar, 7 October 2024

Housekeeping rules



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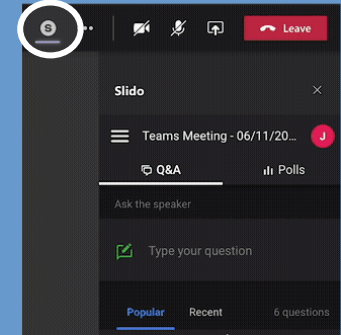


Q&A session

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Indicative time	Webinar items	
13:45 - 14:00	Webinar open for log-in	Starts promptly at 14:00
14:00 - 14:05	Introductory Remarks Jana HAASOVÁ, CEER	
14:05 - 14:15	2024 Market Monitoring Report: conclusions and recommendations Séamus BYRNE, ACER	
14:15 - 14:50	Q&A Panel discussion on the potential of new contracts and how effective communication can inform consumers' decisions Moderator: Natalie McCOY, CEER Philip LEWIS, Vassa ETT Pete LUNN, ESRI Jacobo Christian FERNÁNDEZ LÓPEZ, CNMC	
14:50 - 15:00	Closing Remarks Csilla BARTOK, ACER	

Introductory remarks

Jana Haasová
CEER

2024 Market Monitoring Report

Conclusions and recommendations

Seamus Byrne

ACER



High level conclusions

10

Member States

Have smart meter rollout below 30%, of which 6 have a rollout below 10%. Therefore, consumer choice in these markets is limited.



12

-fold increase

In instances of negative wholesale electricity prices in the EU in 2023 compared to the year prior. System flexibility needs will double by 2030.



73%

of EU households

Are on regulated fixed and market-based fixed electricity contracts in 2023. More flexible market-based contracts options need to be provided to consumers.



Untargeted

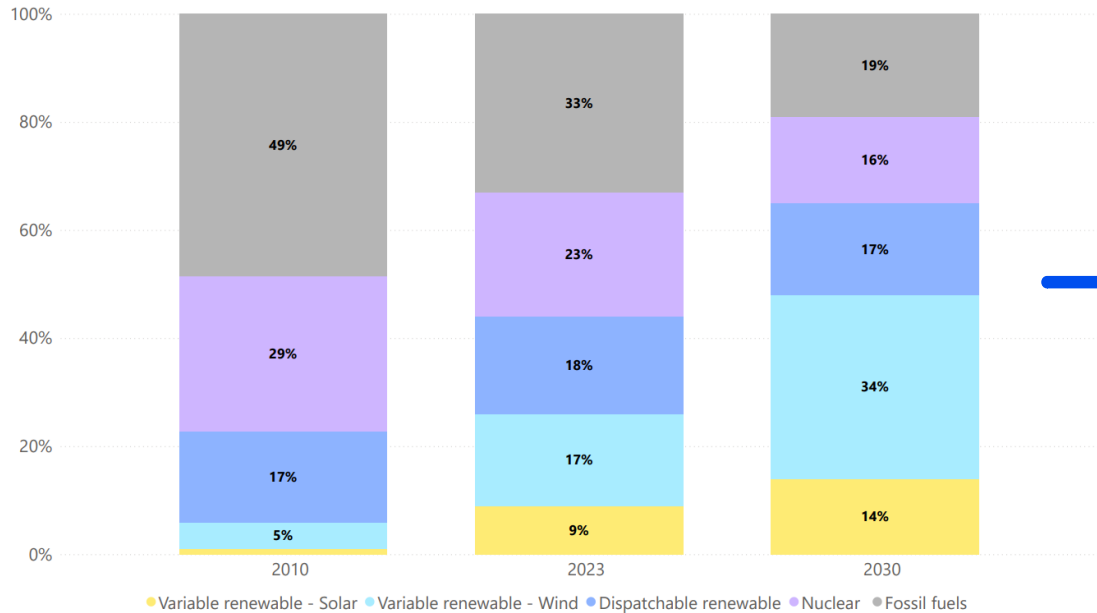
price interventions

In eight Member States, hindering the adoption of more flexible pricing contracts and consumption practices which could meet the diverse needs of consumers and the grid.

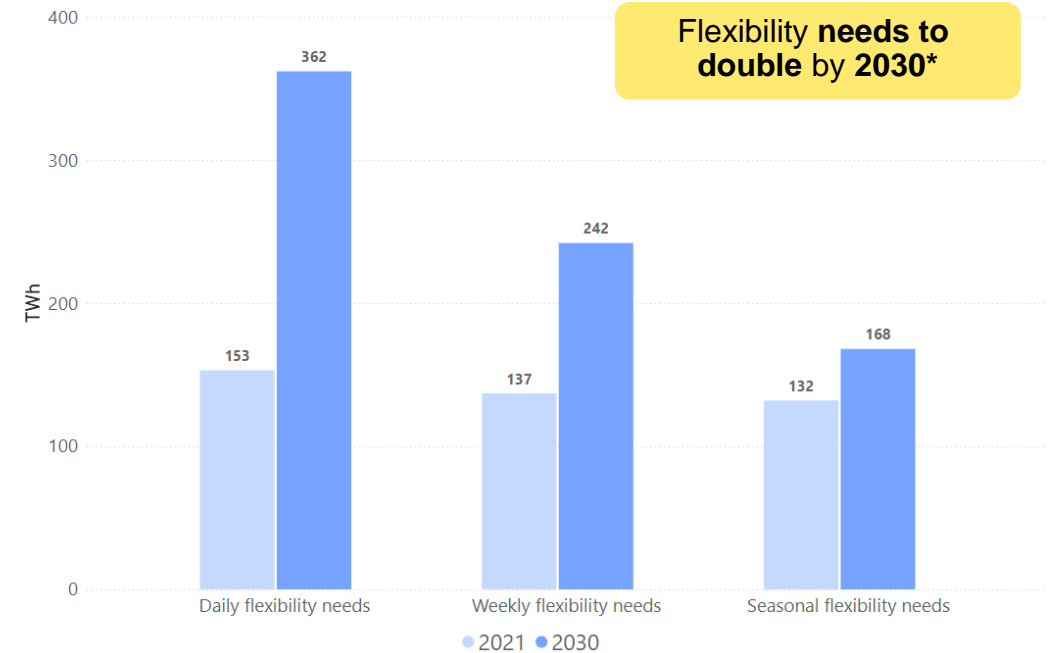


Flexibility is becoming the 'name of the game' ...

EU Electricity generation portfolio evolution; 2010-2030



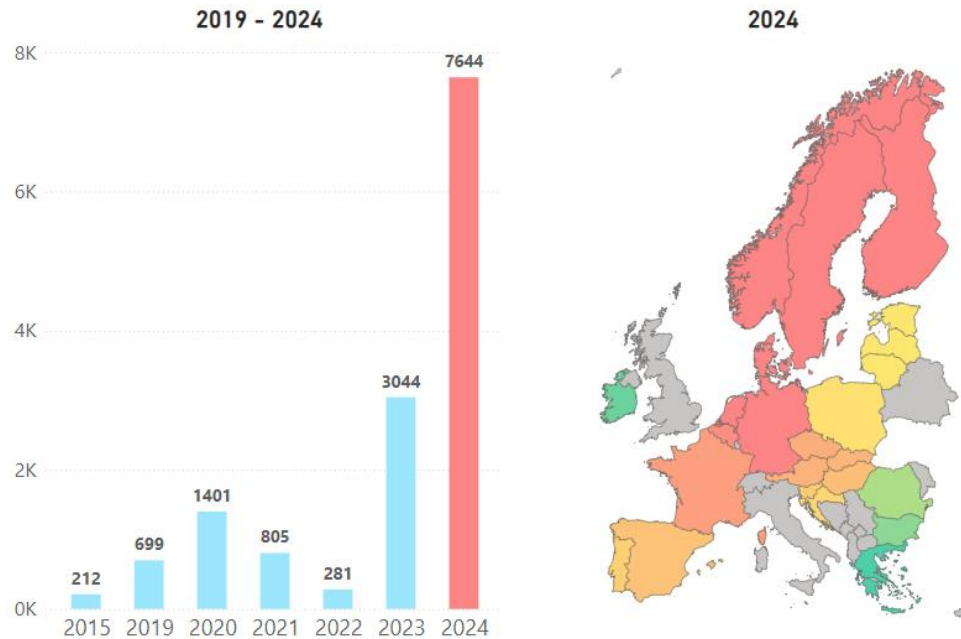
EU power system flexibility needs overview; 2021-2030



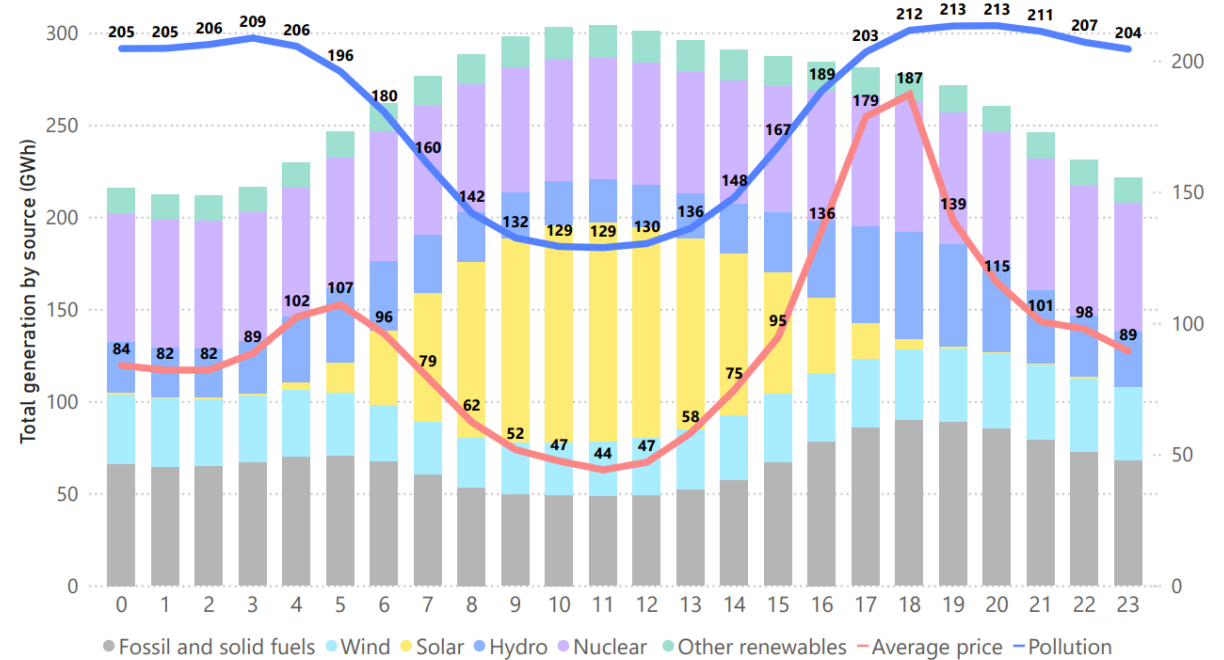
The energy transition will result in a **surge in intermittent renewable energy** sources and further electrification of the EU energy system. As such, the **daily flexibility needs** of the power system will increase significantly.

Negative/low prices rocketing, need for flexibility

Number of day-ahead negative pricing hours for EU-27 Member States + Norway between January and August



Average hourly generation by source (GWh), day-ahead price (EUR/MWh) and CO₂ pollution (kg/MWh) in the EU-27 in August 2024

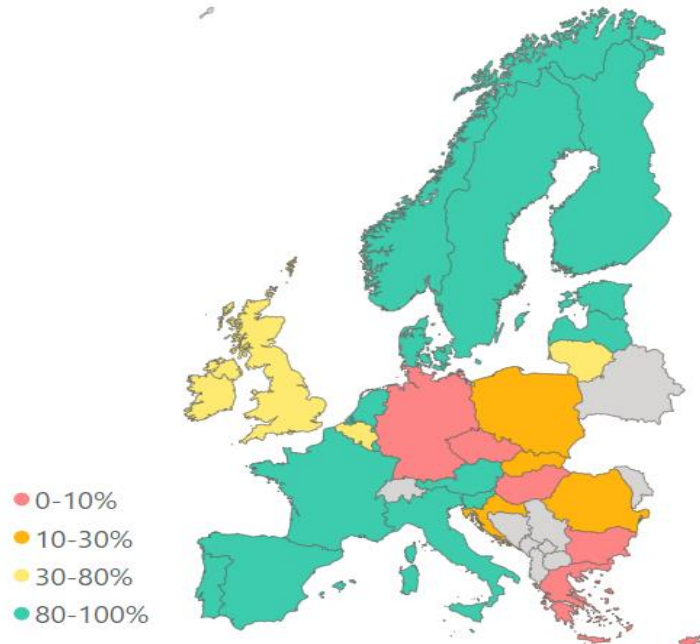


In 2024, up until August, negative pricing hours surged more than doubling those in 2023. Half of these negative price hours occurred between 10:00 and 14:00. This will likely become more common going forward, possibly impacting renewable generation investments. In parallel, it offers price signals and incentives for batteries deployment, or demand response solutions.

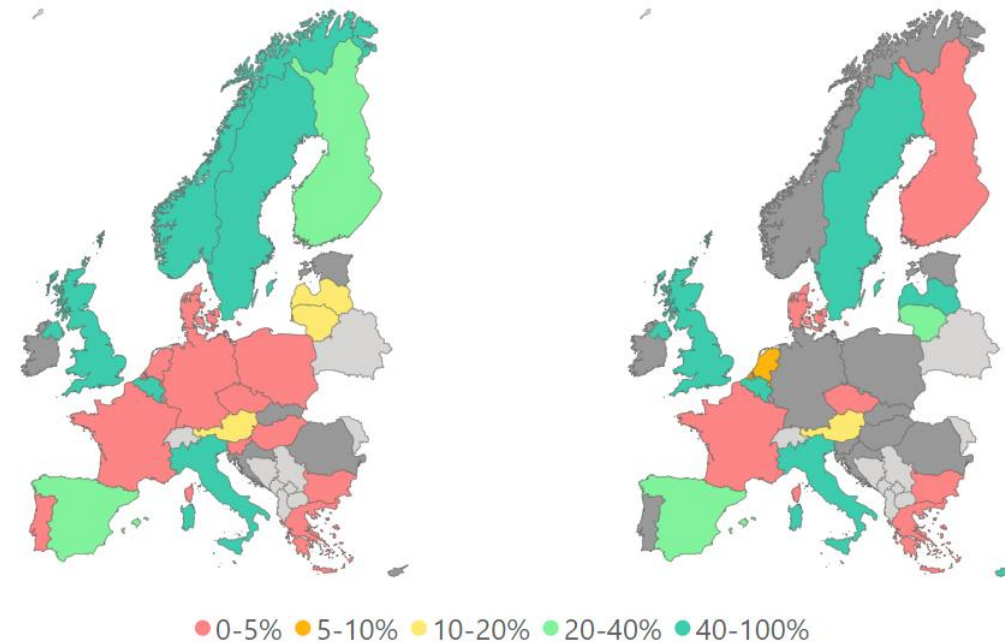
Source: ACER based on ENTSO-E TP.

Note: Negative prices may occur from diverse causes (e.g., minimise shutting down costs, lacking system flexibility, lacking storage capacity, price subsidies,...). ACER's upcoming Progress of EU electricity wholesale market integration Market Monitoring Report, due in November 2024, will discuss these reasons in detail.

Share of smart-meters roll-out per Member State; 2023



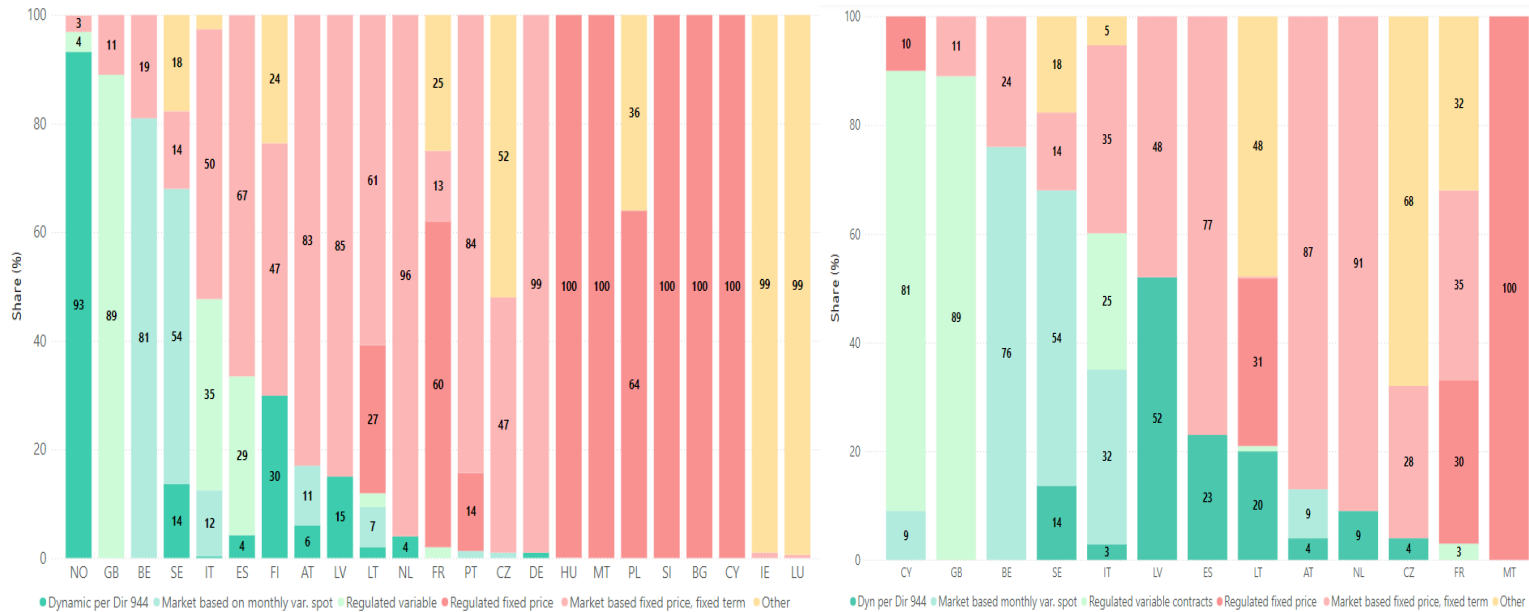
Share of households (left) and non-households (right) with flexible* electricity price contracts; 2023



Smart meters and **flexible electricity price contracts** will be essential tools to enable retail consumers participation in delivering decarbonisation. A lack of flexibility will ultimately result in network cost increases, peak energy increases and in consumers not benefitting from low prices. Despite smart meters' critical role in dynamic pricing and consumer participation, deployment remains limited in eleven Member States.

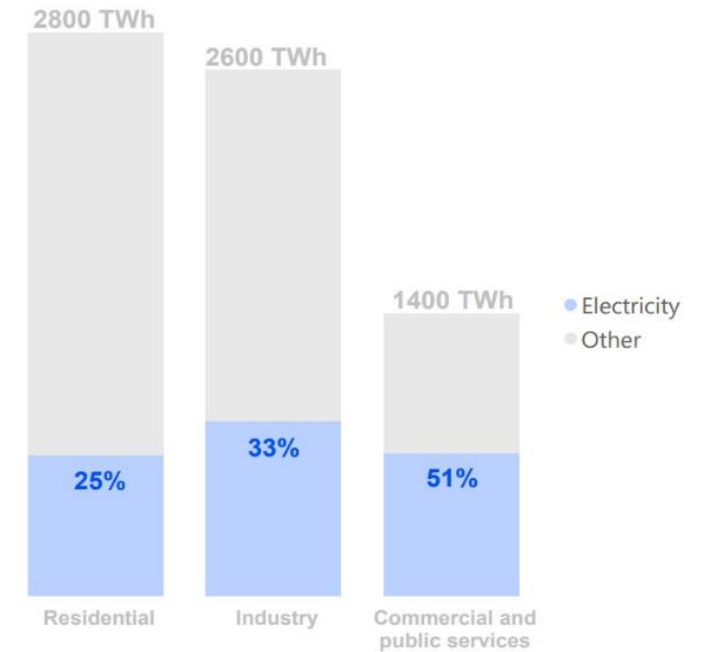
Dominant fixed-price contracts limit flexibility

Breakdown of household (left) and non-household (right) contracts per type and per Member State; 2023



More electrified than the residential sector, the industry sector shows more flexibility potential

Share of electricity in final energy demand in residential and industrial sectors, EU-27, in 2022 and in Terawatt Hours



Fixed price and untargeted fixed price regulated contracts are dominant in most jurisdictions, while the offering of dynamic electricity price contracts is hindered primarily due to the limited rollout of smart meters in half of Member States. Untargeted regulated prices may also hinder the development.



Regulatory changes

- Regulatory frameworks should evolve to **promote demand-side response**, in advance of 2030, while for households, consumer protection needs to be also balanced.
- Regulators must ensure that distribution system operators are incentivised to deliver **more cost-efficient grid use and investment**.

Access to flexibility

- Regulatory authorities, distribution system operators and Member States must ensure a swift roll-out of smart meters, whilst regulators and suppliers must **ensure the provision of a broad range of flexible contract offers, in particular dynamic price contracts**.

Informed and incentivised consumers

- Member States, regulators and suppliers must ensure that **consumers are aware of the benefits and drawbacks of flexible energy consumption** and are appropriately incentivised, in recognition of the benefits that flexibility will bring.

Panel discussion

Moderator

Natalie McCoy

CEER

Flexible contracting

Philip Lewis

VaasaETT

Dynamic Tariffs & Residential Flex

Challenges

Perceived risk by consumers
(desire for protection)

Consumer norms
(better the devil you know)

Supplier Norms
(dynamic = lower margins)

Utilities systems
Not designed to be dynamic)

Insufficient Value
(lack of synergies)

Solutions

Combine benefits of old & new
(protections to dynamic tariffs)

Customer journey to dynamic
(one step at a time)

Unlock new services
(beyond tariffs)

Replace systems
(no excuse for old systems)

Stack revenue streams
(supply, networks, other)

Actions

Hybrid Tariffs

Multi-Stakeholder Services

Hybrid Tariff Models

Spot + Fixed

TEDOM
T-Combi 12

KOMBINOVANÁ CENA

50 % FIX + 50 % SPOT

Energy as a service

Tesla Electric

Clean Energy for Your Home and Community



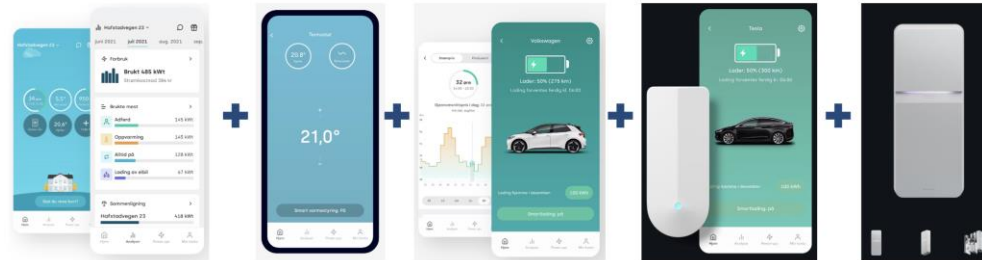
Smart tariff

Smart heating

Smart charging

Smart load control

Smart battery



EV Tariffs



OVO Charge Anytime

Compatibility with 13 car brands incl. Tesla, and 2 charger brands. Scheme only requires either compatible car or charger, not both.

Add-on to any OVO tariff.

Optimizes charging for when grid is "greenest". Charging rate is 10p/kWh, any cost over that during charging will be credited back to customer's account.

Overriding the charging schedule is possible, but then the charging session won't be at 10p/kWh but at customer's normal electricity rate.



Integrated Modules

Schedule Discounts



Super low EV energy rate

Access an 8c/kWh EV charging while you're using Origin EV Power Up. That could mean less than \$5 for a full charge* and up to \$452 in annual savings* compared to a standard home charging electricity rate.

Charge when it suits you

All you need to do is set the time of day you need your car charged by and our smart tech will do the rest. You won't have to lift a finger.



Flexibility to control your EV's charge

Need your car charged urgently? No problem, you can override your charge schedule any time and send power over to your ride in an instant. Instant charging will be charged at your standard electricity rate.



Access renewable, low-cost energy

Unlike other energy providers, we can charge during the day - when more renewable power is in the grid - and at night for the same great rate. The smarter way to save you more and cost the environment less.

Heat Pump Tariff

octopusenergy

How does it work?

Cosy Octopus is a 3 rate tariff with double dip Cosy Hours every day: six hours of super cheap electric to warm your home.

Fixed + Some Spot



Fortum Duo – a more stable alternative to exchange electricity

With a fixed-term Fortum Duo contract, you protect yourself from price fluctuations. By timing your consumption, you have the opportunity to influence the final amount of your bill.

General electricity
8.79 c/kWh

Basic fee €4.04/month
The price of general electricity +/- consumption effect. Temporary 24 months.

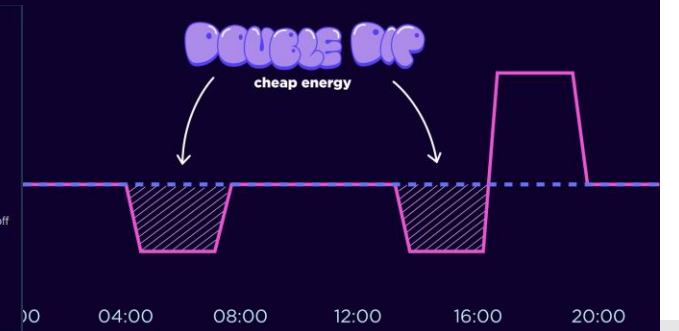
Order Fortum Duo

Plunge Pricing

Introducing Agile Octopus
The 100% green electricity tariff with Plunge Pricing

agileOctopus
Half-hourly electricity prices that update daily based on wholesale costs.
Shift your energy use outside the 4-7pm peak to save money.

Plunge Pricing pays you to take excess energy off the grid
Across the UK, whenever more electricity is generated than consumed, energy prices fall - sometimes to the point where prices drop below zero, and suppliers are paid to take energy off the grid.
Agile Octopus introduces Plunge Pricing - a world first that lets you take advantage of these negative price events, and get paid for the electricity you use. You'll receive alerts whenever prices drop below zero, and you can use our Agile API to program your smart devices.
Between July 2020 and July 2021, unit prices dropped below 2p / kWh 163 times!



Decarbonising flexible homes at scale, commercial

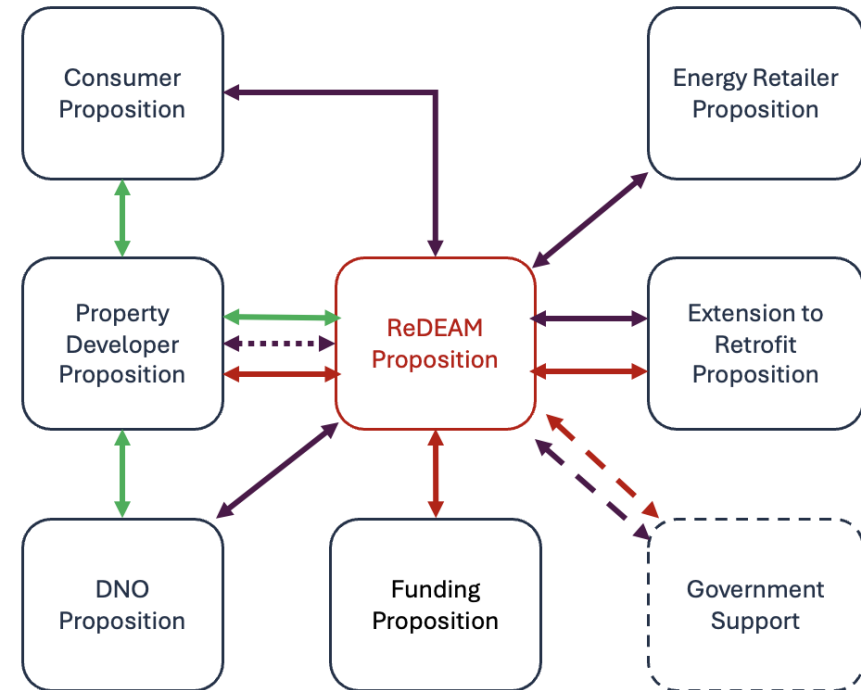
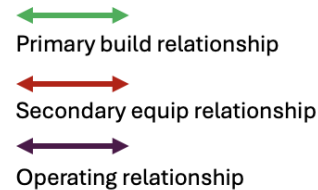
- ❖ Integrating stakeholders
- ❖ Facilitating smart local energy systems (SLES)
- ❖ Dynamic load averaging
- ❖ Garnering value for all



LEMA
Local Energy Markets Alliance

Stakeholders Revenue Stacking

Property developers	Avoided Network Costs
DSOs	Quicker New Build
Energy Suppliers	Energy Savings
Local Authorities	Demand Side Flex
Communities	Home Value Increase
Tech & Data	Mortgage Reductions
Logistics	



Spain – voluntary price for small consumers

Jacobo Fernández
CNMC

OBJECTIVE: STUDY THE IMPACT OF MODIFYING ELECTRICITY CONSUMPTION PATTERNS IN HOUSEHOLDS UNDER A DYNAMIC PRICE

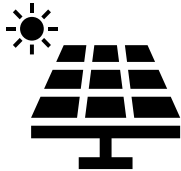


POTENTIAL BENEFITS:

Increase demand in central hours with growing PV energy penetration

Savings in consumer's bill

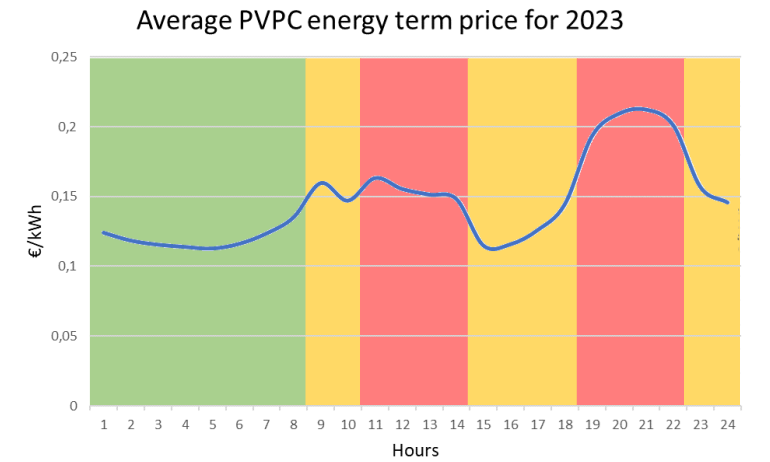
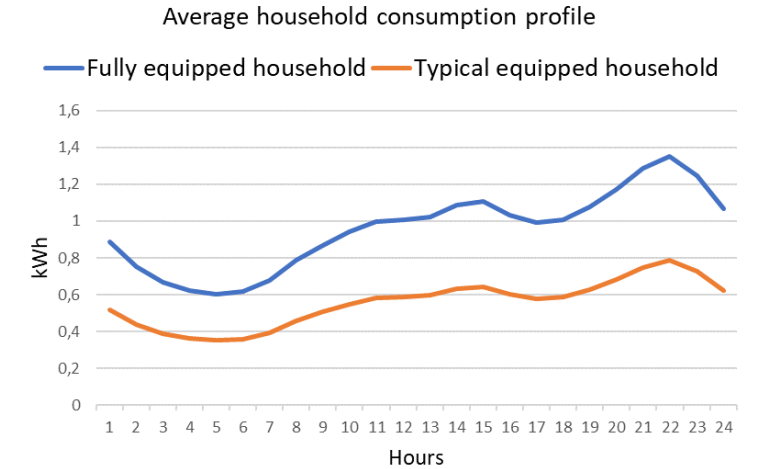
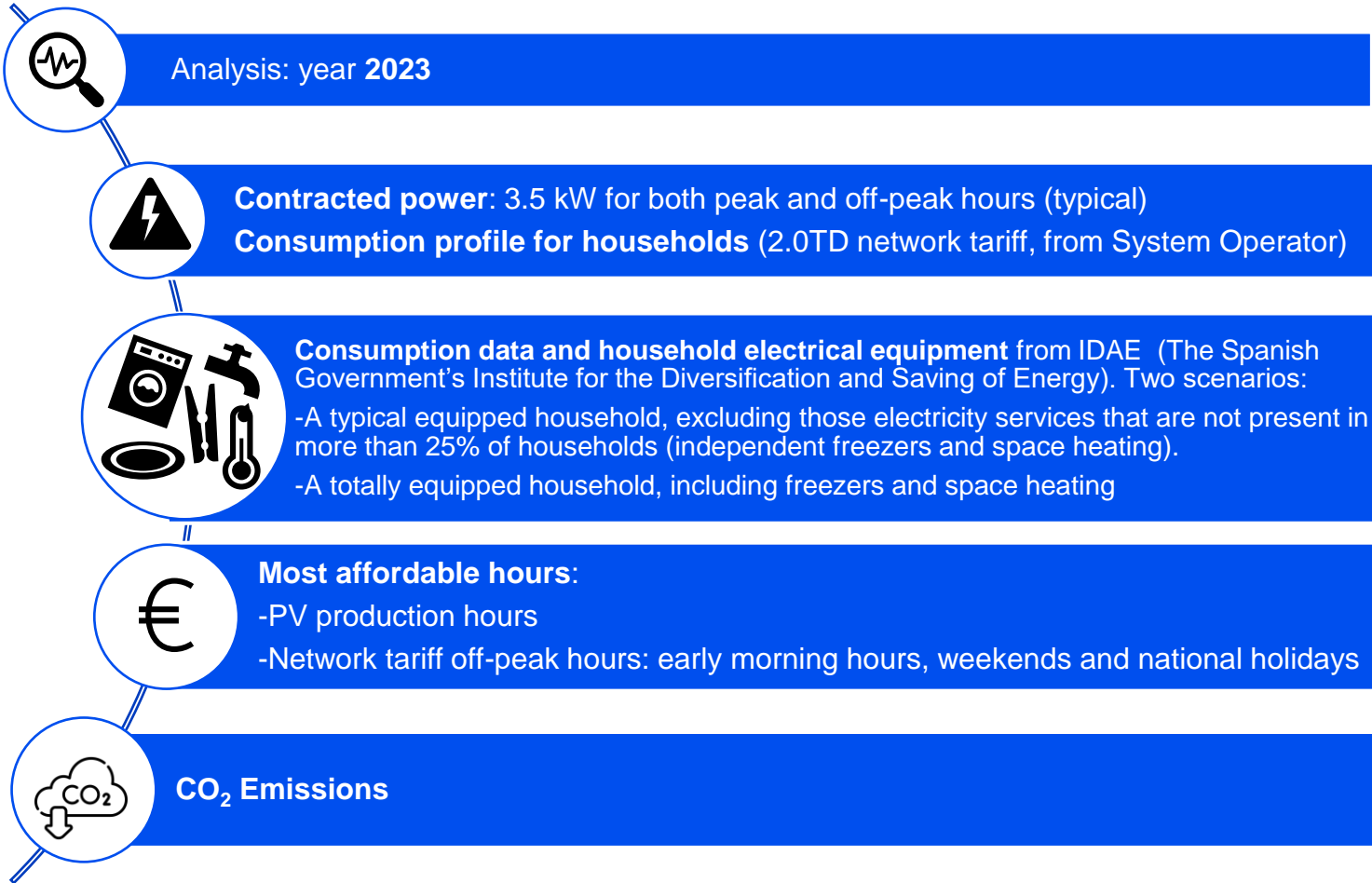
Reduction of CO₂ emissions



PVPC (VOLUNTARY PRICE FOR SMALL CONSUMER): the most common **dynamic price** contract in Spain in which the energy price paid by customers is the price resulting in the day-ahead spot market and ancillary services cost during the billing period (starting from 1st January 2024, the hourly energy component is estimated by incorporating to the spot price a basket of future products to reduce volatility)

Besides, in Spain **network tariffs are Time-Of-Use (TOU)**

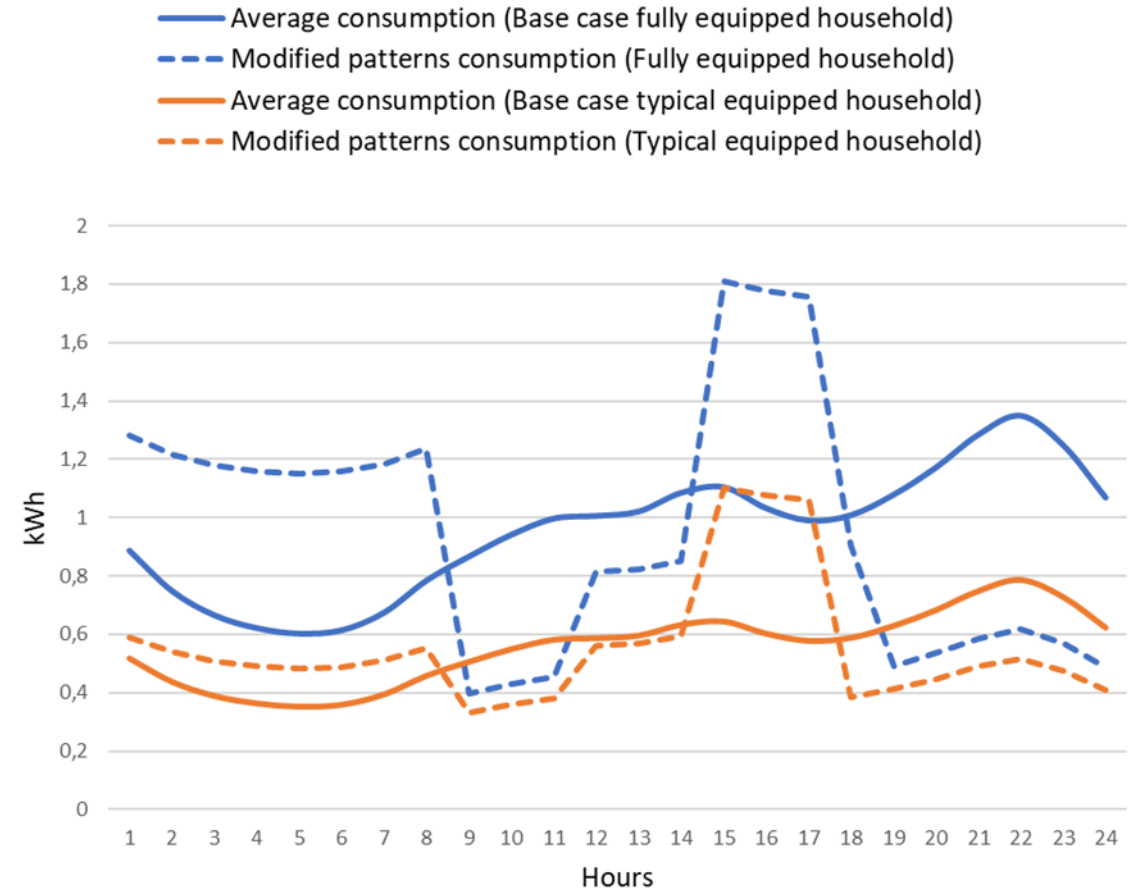
Approach and hypothesis



FULLY EQUIPPED HOUSEHOLD					
BILL ITEM	BASE CASE COST (€)	MODIFIED PATTERNS COST (€)	SAVINGS		CO ₂ EMISSIONS REDUCTION
			AMOUNT (€)	%	
Energy term	1,269.57	1,108.93	160.64	12.65%	6.36%
Fixed term (power contracted)	93.54	93.94	-0.40	-0.43%	
Others	111.56	102.70	8.86	7.94%	
TOTAL	1,474.67	1,305.57	169.10	11.47%	

TYPICAL EQUIPPED HOUSEHOLD					
BILL ITEM	BASE CASE COST (€)	MODIFIED PATTERNS COST (€)	SAVINGS		CO ₂ EMISSIONS REDUCTION
			AMOUNT (€)	%	
Energy term	739.33	669.47	69.86	9.45%	2.80%
Fixed term (power contracted)	93.54	93.54	-	0.00%	
Others	82.26	78.40	3.86	4.70%	
TOTAL	915.13	841.41	73.72	8.06%	

Others include supplier margin, social bond financing and metering equipment rental
Taxes include electrical tax and VAT





Savings in consumer's bill



Increase demand in central hours with growing PV energy penetration



Reduction of CO₂ emissions



Are consumers aware?



Q&A

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Natalie McCoy

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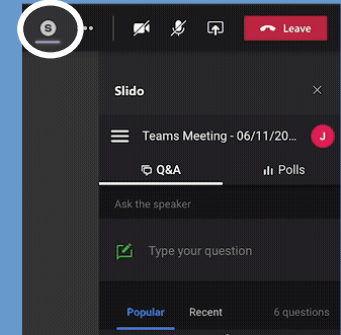


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Closing remarks

Csilla Bartok

Head of Department – Gas, Hydrogen, and Retail

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