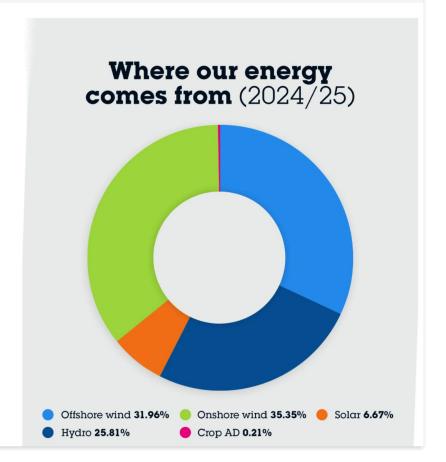


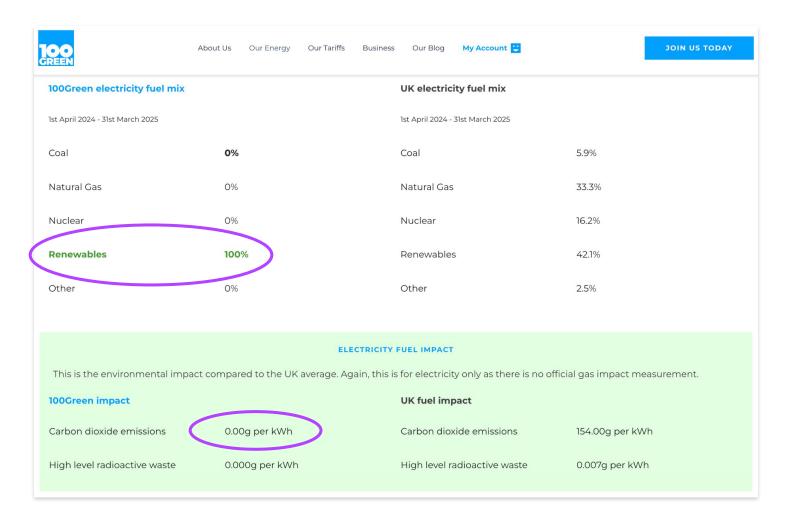
# **Matched Energy**

Each year, every UK energy company has to publish where its electricity supply comes from. While the industry average for renewable energy is around 40%, Ecotricity supplies 100% green electricity to its customers.

The chart to the right demonstrates where our electricity came from during 2024/25, with the mix including offshore wind, onshore wind, solar and hydro.

е
>
•







### SSE business energy plans and tariffs

This section shows the energy sources used for our different plans and tariffs. Our renewable plans include <u>SSE Green</u>, <u>SSE Next Generation</u> and <u>SSE CPPA</u>. Our other plans include all non-renewable plans and the <u>SSE Variable Business Rates</u> (VBR).

Standard fuel mix - Our plans 2024/2025



### "100% Renewable"

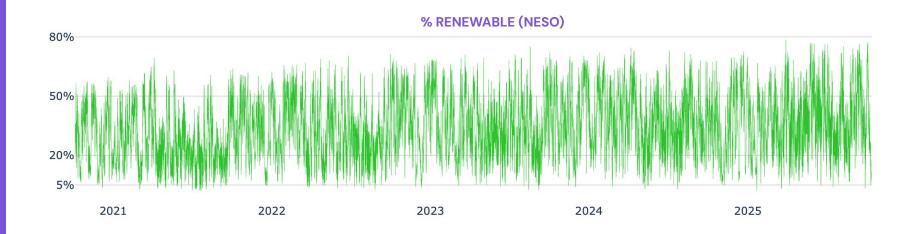


"9 million British households are on green tariffs – over half of new electricity tariffs are '100% renewable' or 'green' BEIS 2021

#### "100% Renewable"



"9 million British households are on green tariffs – over half of new electricity tariffs are '100% renewable' or 'green' BEIS 2021



### "100% Renewable"



"There is confusion around green tariffs... 31% incorrectly think a green tariff means all the energy they use is generated from renewable sources. Ofgem, 2021

### Overview



- 1. What underpins renewable claims why are they misleading?
- 2. What would be a better system how would suppliers perform?
- 3. Can we harness the renewable market to accelerate Clean Power 2030?

### **About Matched**



#### **WE ARE:**

Independent, not-for-profit, tracking renewable supply with public data.

#### **OUR GOALS:**

Recognise **suppliers**, help **consumers**, and drive **regulatory** reform.

#### **CONTRIBUTORS:**



























### Joe Kwiatkowski, PhD



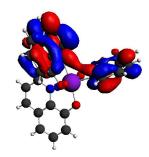




**TESLA ENERGY** 



**ECOFACTOR** 



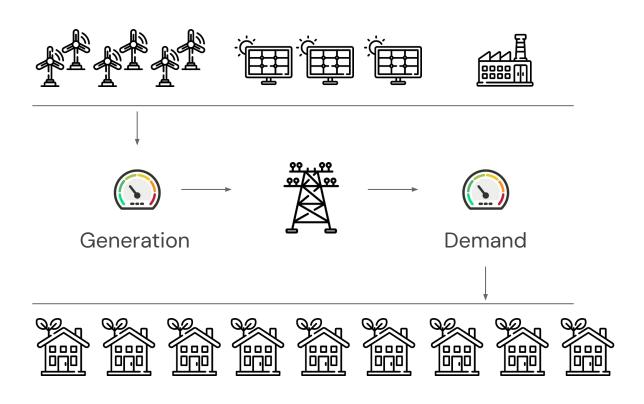
CAMBRIDGE, IMPERIAL, STANFORD



# What Underpins Renewable Claims?

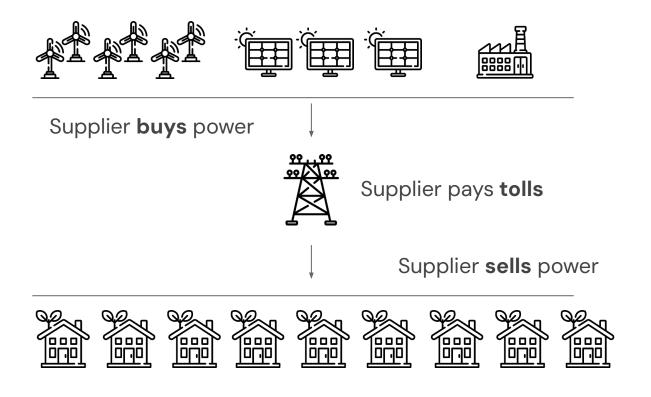
### What Electricity Do You Get - In *Physical* Terms?





### What Electricity Do You Get - In *Market* Terms?





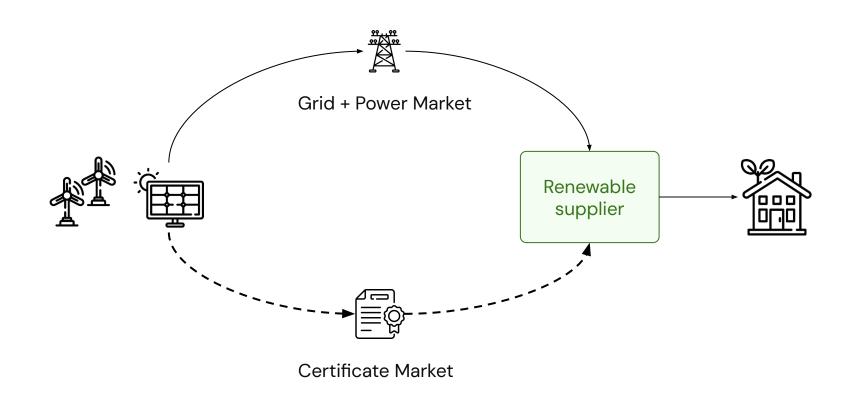
### What Electricity Do You Get - In *Market* Terms?



Fuel	Ecotricity Ltd.	UK Average
Coal	0%	5.9%
Natural Gas	0%	33.3%
Nuclear	0%	16.2%
Renewables	100%	42.1%
Other	0%	2.5%
Total	100%	100%

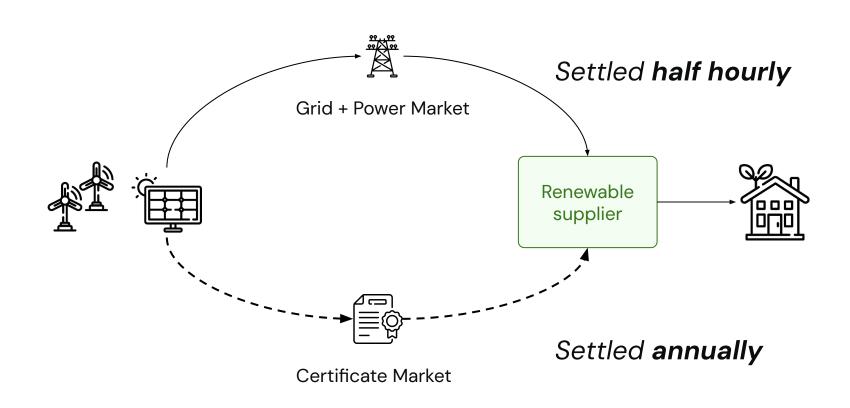
### Certificate Markets (REGOs)





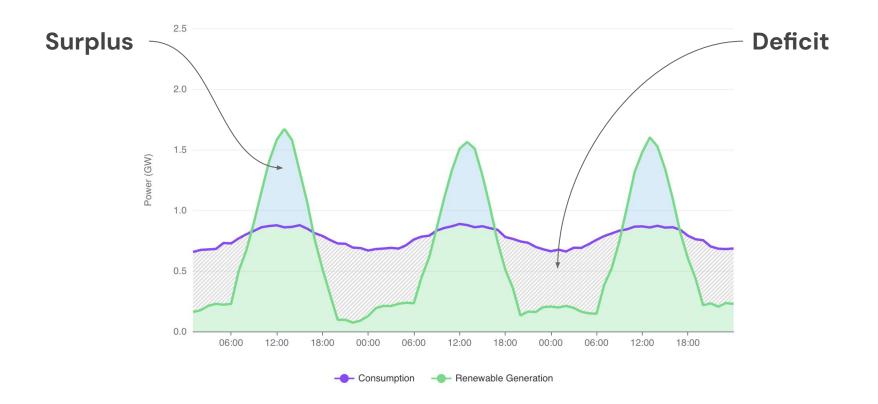
### Certificate Markets (REGOs)





### Annual Settlement is a Form of Offsetting





### It Matters When We Consume







### Annual Settlement is Flawed



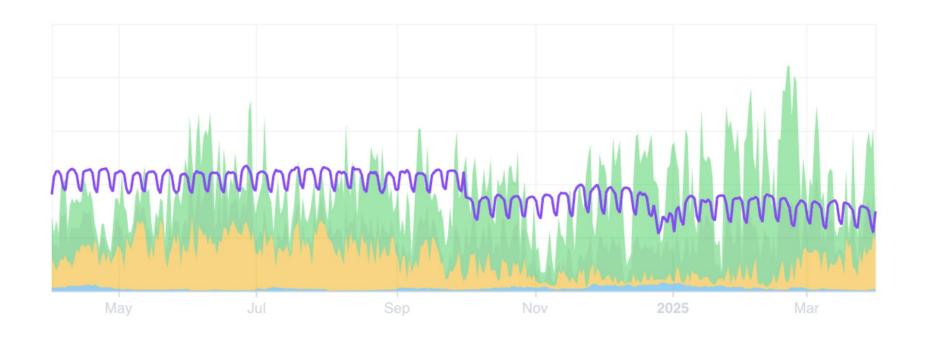
- 1. It's unphysical
- 2. It misleads consumers
- 3. It doesn't distinguish the cleanest suppliers
- 4. It doesn't incentivise diversification of renewables or flexibility



# How Do We Improve Renewable Claims?

### Certificates Should Settle Half-Hourly (Like Power)





"100% Renewable" (annual)

78% Renewable (half-hourly)

### Half-Hourly Settlement Works



- 1. It's physical
- 2. It wouldn't mislead consumers
- 3. It would distinguish the cleanest suppliers
- 4. It would incentivise diversification of renewables and flexibility



# How Do We Make Half-Hourly Work?

### The Half-Hourly Ecosystem



#### **Standards**







#### **Tariffs**



#### Traceable Renewable Supply

We understand the complexity of navigating the journey to net zero that confidence and traceability of your renewable power is key for businesses when reporting net zero carbon emissions.

Our Traceable Renewable Supply product offers just that.

#### **Consultations**



Designing a framework for transparency of carbon content in energy products: call for evidence

#### **Commitments**



24/7 by 2030: Realizing a Carbon-free Future

## Why Hasn't Change Been Faster?



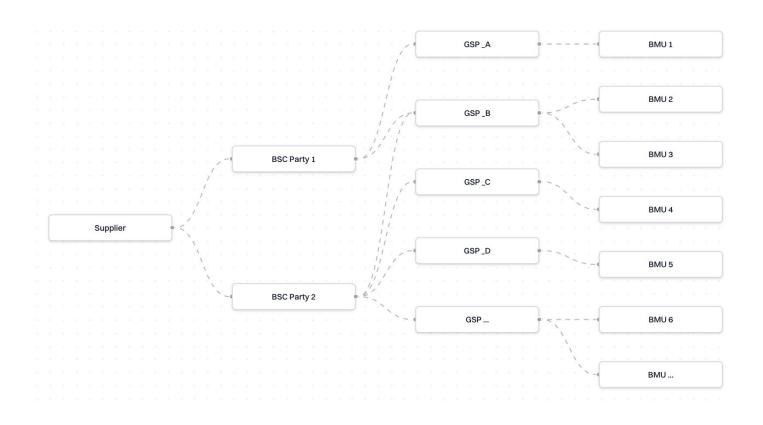
### What Can We Do With Public Data?



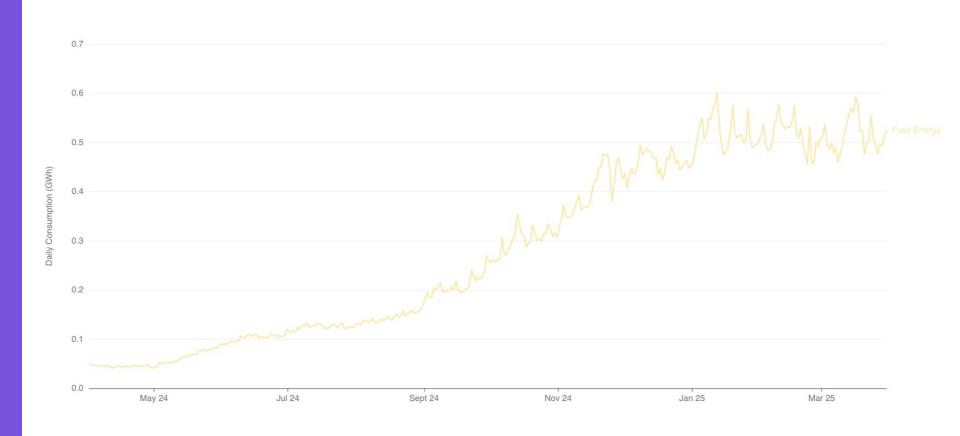


bsc	MERCURY
settlement_date	2024-04-01 00:00:00+01:00
settlement_period	1
settlement_run_type	SF
bm_unit_id	2PAVRO000
information_imbalance_cashflow	0.0
<pre>bm_unit_period_non_delivery_charge</pre>	0.0
period_fpn	0.0
<pre>period_bm_unit_balancing_services_volume</pre>	0.0
period_information_imbalance_volume	0.0
<pre>period_expected_metered_volume</pre>	0.0
bm_unit_metered_volume_mwh	-5.7
<pre>period_bm_unit_non_delivered_bid_volume</pre>	0
<pre>period_bm_unit_non_delivered_offer_volume</pre>	0
transmission_loss_factor	-0.025677
transmission_loss_multiplier	0.983401
trading_unit_name	DEFAULTP
total_trading_unit_metered_volume	-47.654
<pre>bm_unit_applicable_balancing_services_volume</pre>	0.0
<pre>period_retailer_bm_unit_delivered_volume</pre>	0.0
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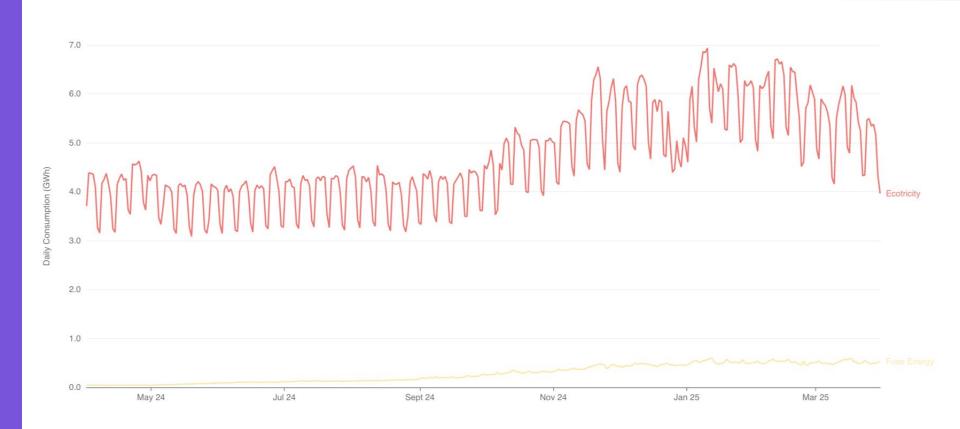




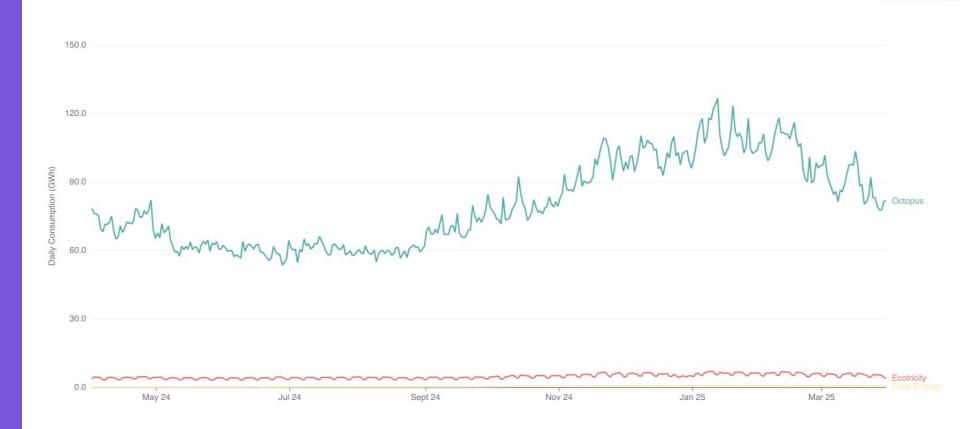












### Renewable Energy Register (REGOs)



Accreditation reference

Station name

Station TIC in kW

Scheme

Country

Technology

Generation type

Output period

Number of certificates

Start certificate number
End certificate number

MWh per certificate

Issue date

Status

Status date

Current holder

Company registration number

G28568PVEN

Mount Joy School

49.77

REGO

England

Solar PV

NaN

Nov 2024-Mar 2025

10

G28568PVEN000000000011124310325GEN G28568PVEN0000000009011124310325GEN

1

25/09/2025

Issued 25/09/2025

Good Energy Ltd

NaN

### Upsampling REGOs - Transmission-Tied Generation



<pre>rego_name accreditation_number lead_party_name lead party id</pre>	Drax Power Station (REGO) G01821BWEN Drax Power Ltd DRAX
rego_technology bmu_fuel_type	Biomass BIOMASS
<pre>bmu_ids rego_mw bmu_net_mw rego_bmu_power_ratio rego_mwh bmu_mwh rego_bmu_monthly_volume_ratio_min rego_bmu_monthly_volume_ratio_median rego_bmu_monthly_volume_ratio_max rego_capacity_factor bmu_capacity_factor rego_sample_months bmu_sample_months</pre>	T_DRAXX-1, T_DRAXX-2, T_DRAXX-3, T_DRAXX-4  3865.0 2547.0 1.52 15163066.0 15027842.5 0.88 1.02 1.03 0.45 0.67 12.0 12.0

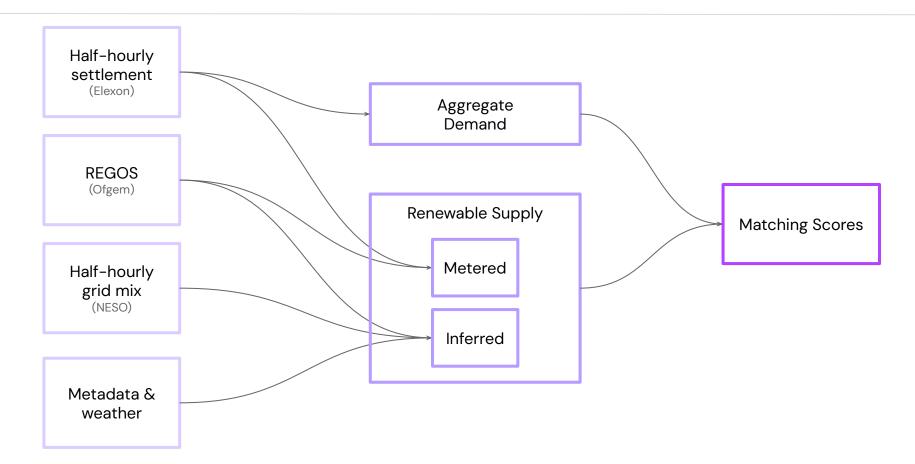
### Upsampling REGOs - Embedded Generation





### Workflow





### Open-Source & Peer Reviewed



#### Matched Methodology v1.2



#### Reviewers

We gratefully acknowledge the contributions of everybody who has reviewed the Matched Methodology.

- npower
- Good Energy
- So Energy
- · Iain Staffell, Imperial College London
- · Robin Morris, Zero Institute, University of Oxford
- · Wilson Ricks, Princeton University
- . Matthew Brander, Business School, University of Edinburgh
- . Tom Luff, Energy Systems Catapult
- · Killian Daly, EnergyTag
- · Benedict Shegog, Seb Porter, Charles Checkley, Granular Energy
- · Olivier Corradi, ElectricityMaps
- . Connor Galbraith, Clement Attwood, Dylan Johnson, Future Energy Associates
- · Louise Dalton, Stella Mavrommati, CMS
- · Liam O'Flynn, Freeths
- · Giorgio Balestrieri, Robert Richardson, Tesla
- · Adrien Lebrun, ALL Energy
- · Alan Tarleton, EcoAct
- · Chris Page, Energy Context
- · Peter Dudfield, Open Climate Fix
- · Puneeth Kalavase, Plus Power
- · Rohan Ma, Redwood Materials
- · Ayrton Bourn, Dare
- Amit Gudka, Field

BLOG

#### **Latest Posts**

October 10, 2025

#### GHG hourly matching: from implementation concerns to market reality

The shift to hourly matching in GHG Scope 2 emissions reporting is an immediate opportunity. While stakeholders cite implementation concerns, the data already exists and is publicly available.

Read more →

October 7, 2025

#### What your supplier actually generates (and why it matters for carbon accounting)

You're paying for 100% renewable electricity. Your supplier claims 100% renewable on their tariff. But hour by hour, what renewable generation have they actually bought? Matched uses public data to provide the answer.

Read more →

View more at www.matched.energy

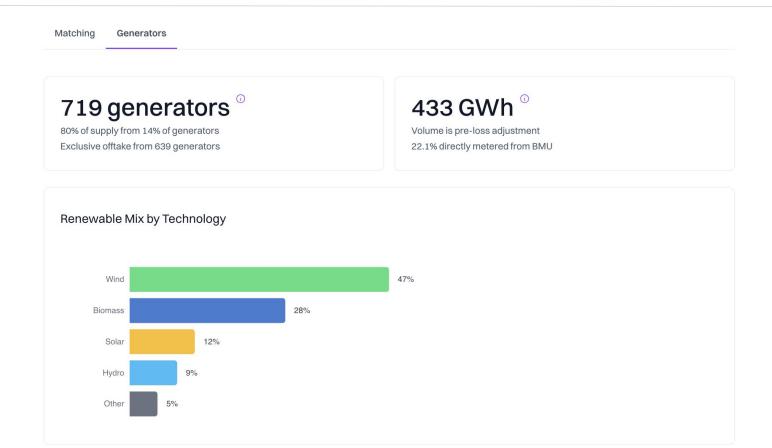
### Matched Clean Power Index





#### Matched Clean Power Index







# Accelerating Clean Power 2030

### Clean Power 2030





#### Policy paper

# Clean Power 2030 Action Plan: A new era of clean electricity – main report

- 1. Secure and affordable energy
- 2. Greenhouse gas reductions
- 3. Creation of new energy industries

#### Clean Power 2030





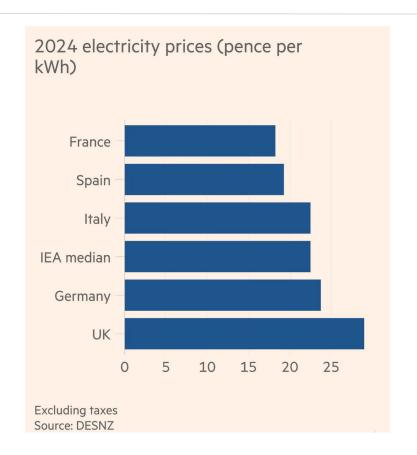
#### Policy paper

Clean Power 2030 Action Plan: A new era of clean electricity – main report

- 1. Secure and affordable energy
- 2. Greenhouse gas reductions
- 3. Creation of new energy industries

## UK Power is Expensive Because of Gas

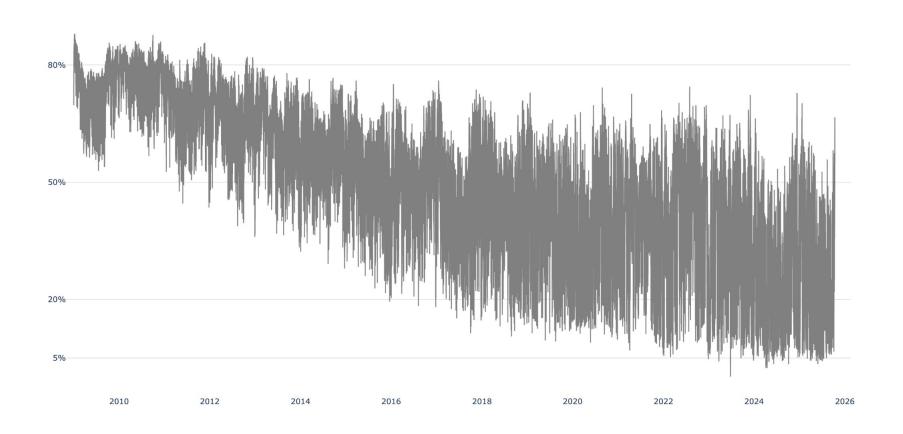






## Gas is in Decline

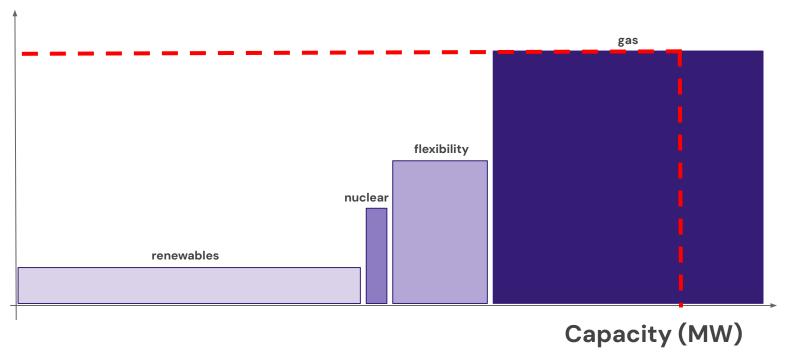




# **Marginal Pricing**



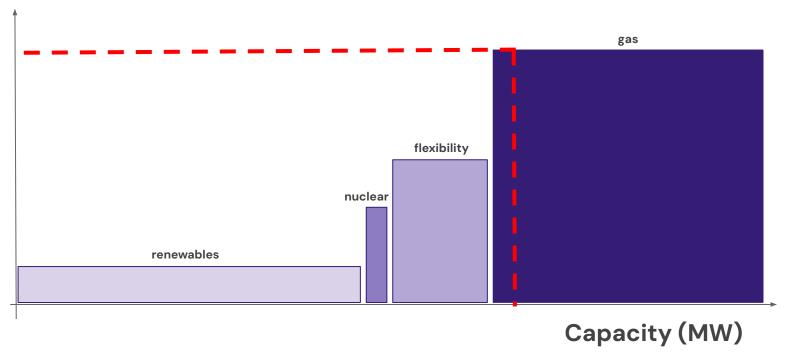




# **Marginal Pricing**







## Gas Fills in For Renewables

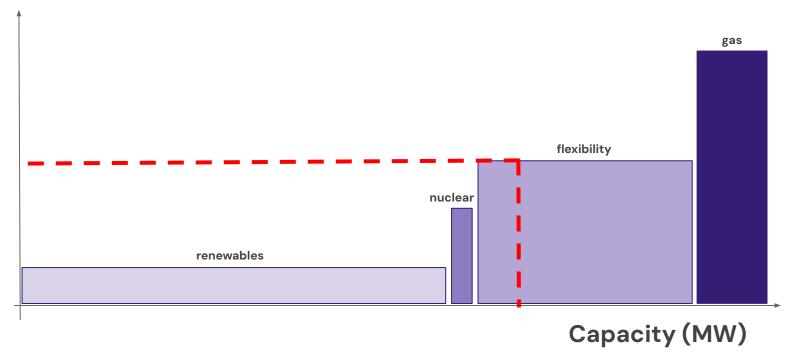




# **Marginal Pricing**









# Conclusion

# Regulatory Reform Is Necessary



REGOs should be settled half-hourly to:

- Rebuild consumer trust
- 2. Distinguish leading suppliers
- 3. Incentivise diversification of renewables and flexibility