



# **Achieving long term energy cost security from renewable sources**



# Who are TEC?

Established in **1994 (25yrs)** from **AUDE**

**135** Institutions

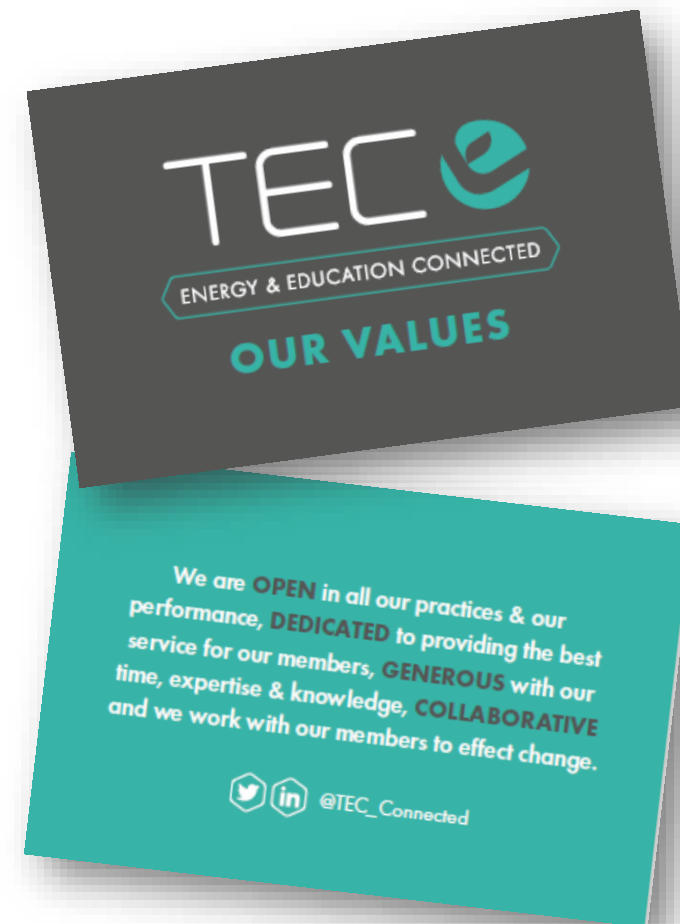
**92%** of Members from Education

**£166M+** annual collaborative spend\*

**9TWh** Volume under Active Risk Management

**7,300+** Meters (Gas & Power)

**100%** transparency on all Commission/Fees



TEC are a not-for-profit Public Buying Organisation owned by it's Members

## A decorative graphic consisting of a horizontal row of hexagons. Some hexagons are solid colors (teal, orange, yellow, light blue), while others contain images of industrial scenes such as power lines, smokestacks, and factory buildings. The hexagons are arranged in a staggered pattern.







# What We Do?

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- Continually develop a broad range of energy services
- Provide specialist energy market expertise
- Education and Insight at strategic and operational levels

Our **mission**, above all else, is to champion the interests of the education sector by delivering cost-reduction and sustainable energy solutions for our members



# HEI CHALLENGES

**Decline in student numbers**



**Volatility in energy pricing**



**Plans to cut tuition fees to £7500**



**Energy 20% of total estate costs**



**Alternatives available to degree education**



**Decline on impactable spend**





# IN THE NEWS



Map of UK Universities committed to fossil fuel divestment

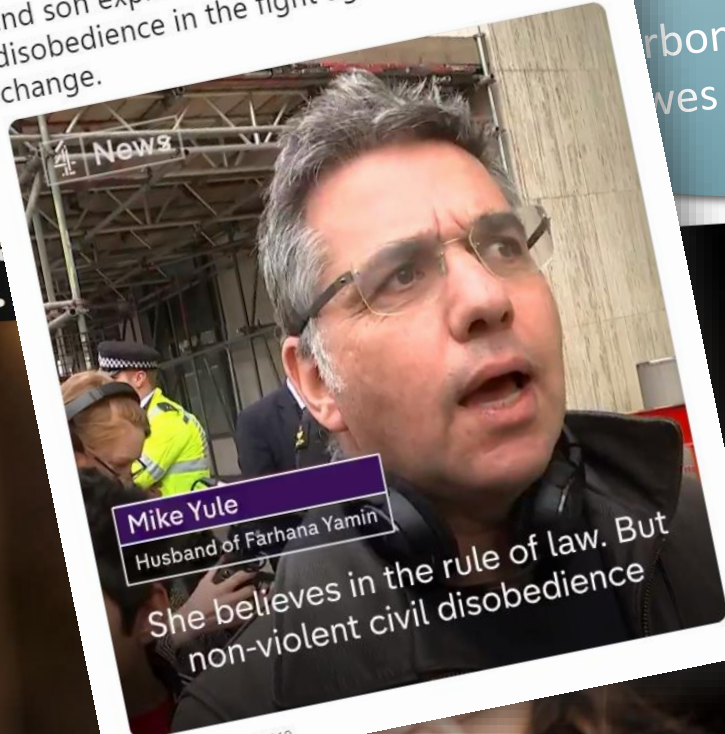


UK has creative carbon reporting and owes a huge carbon debt



Channel 4 News  
@Channel4News  
This is the moment an environmental lawyer glues herself to the street outside the Shell building in London.

Farhana Yamin helped negotiate the Paris Climate Agreement, but now her husband and son explain what pushed her to civil disobedience in the fight against climate change.



**Mike Yule**  
Husband of Farhana Yamin

She believes in the rule of law. But non-violent civil disobedience

12:06 PM - 17 Apr 2019

Interview  
**Greta Thunberg**  
change was things go.  
Jonathan Watts

▲ Greta Thunberg ... 'I have always been that girl in the back who doesn't say anything.' Photograph: Michael Campanella / The Guardian





**EURONEWS  
NOW**

# GREEN TARGETS

PM THERESA MAY COMMITS TO NET ZERO UK CARBON EMISSIONS BY 2050



**So how can you achieve cost  
security & meet your  
environmental, student and  
political stakeholders needs?**



# Onsite challenges

- Carbon neutrality
- Increasing energy demand
- Energy efficiency
- Local infrastructure





# Power Purchase Agreements







# PPA Criteria

**Before entering into a PPA, you should consider key variables and business models.**

All will vary with:

- Technology,
- Size and Output
- Risk Profile
- Financing



## Pricing Assumptions

*What price are you willing to accept vs a typical supply contract?*



## Regulation & Policy

*What may change over the contract lifetime and what can be mitigated?*



## Duration

*PPA, negotiation and project development. Can you meet the longer term expectations?*



## Supplier

*What's their involvement? Supply contract? Optimisation?*



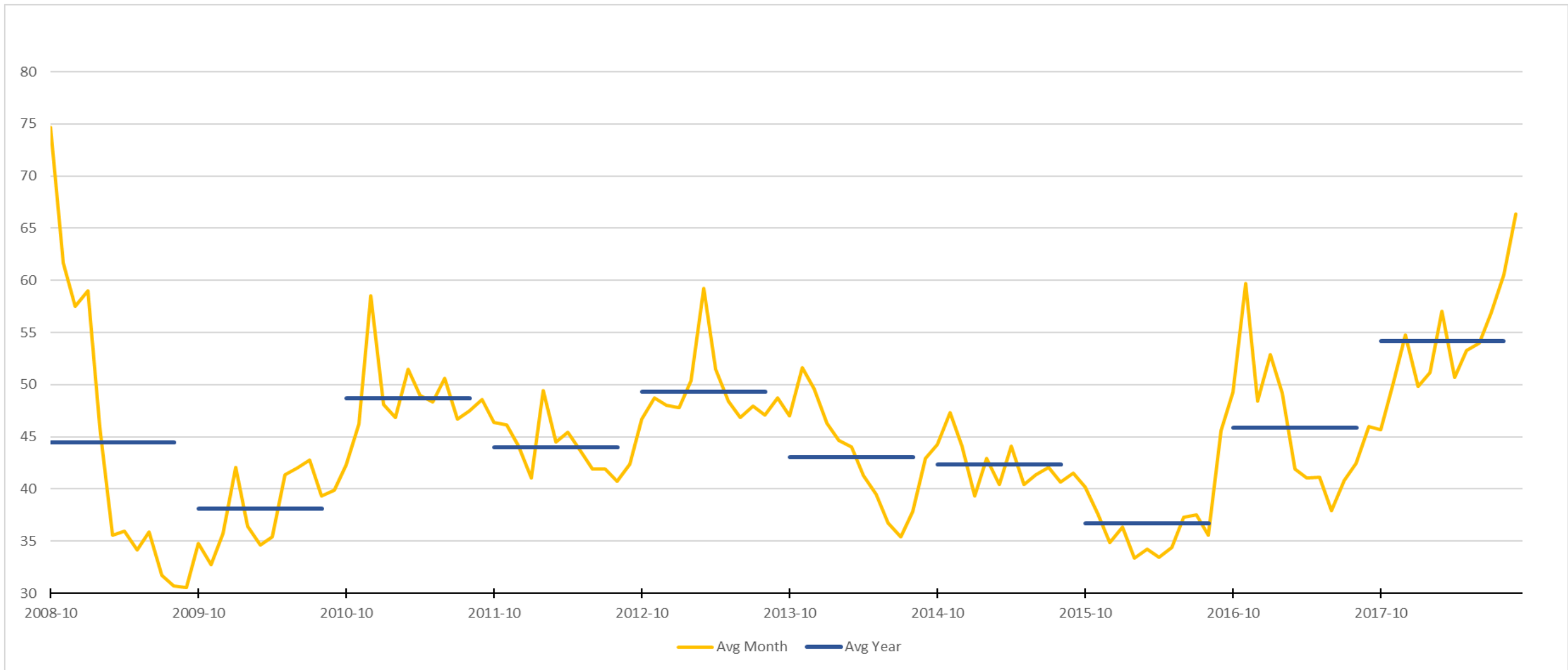
## Investment value

*What proportion of your volume can you invest?*



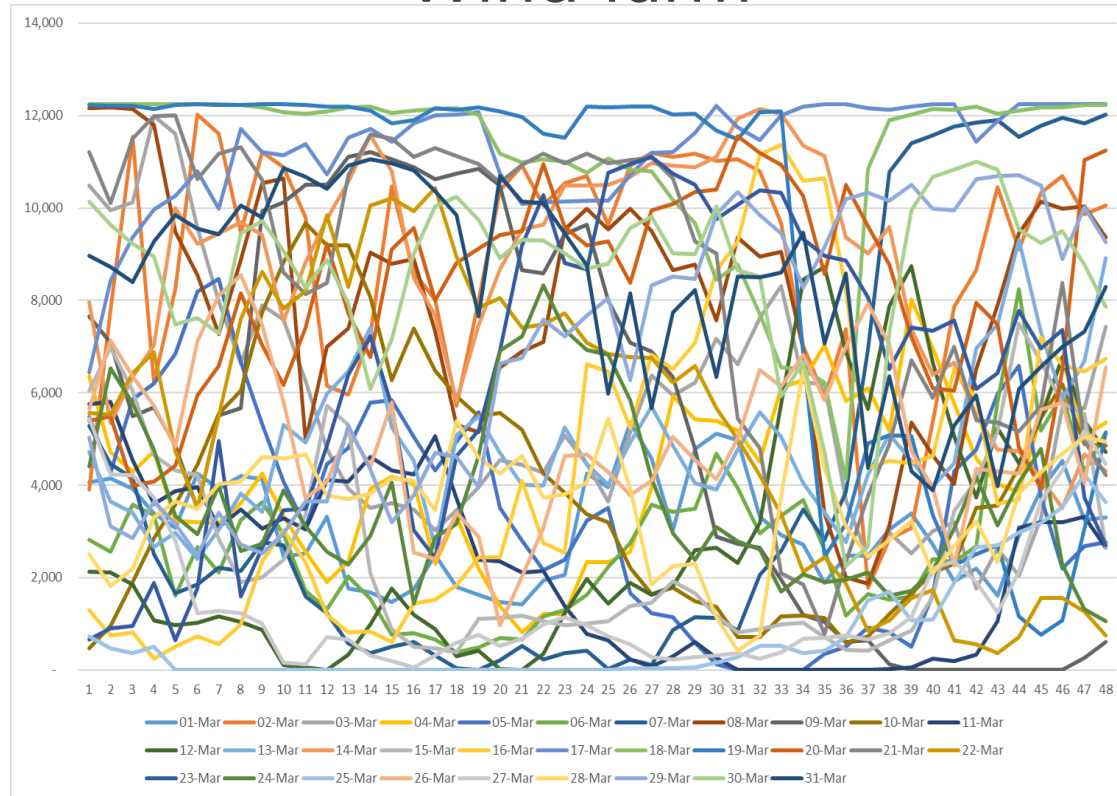
# What's a good price?

## Historic Average Day Ahead Price

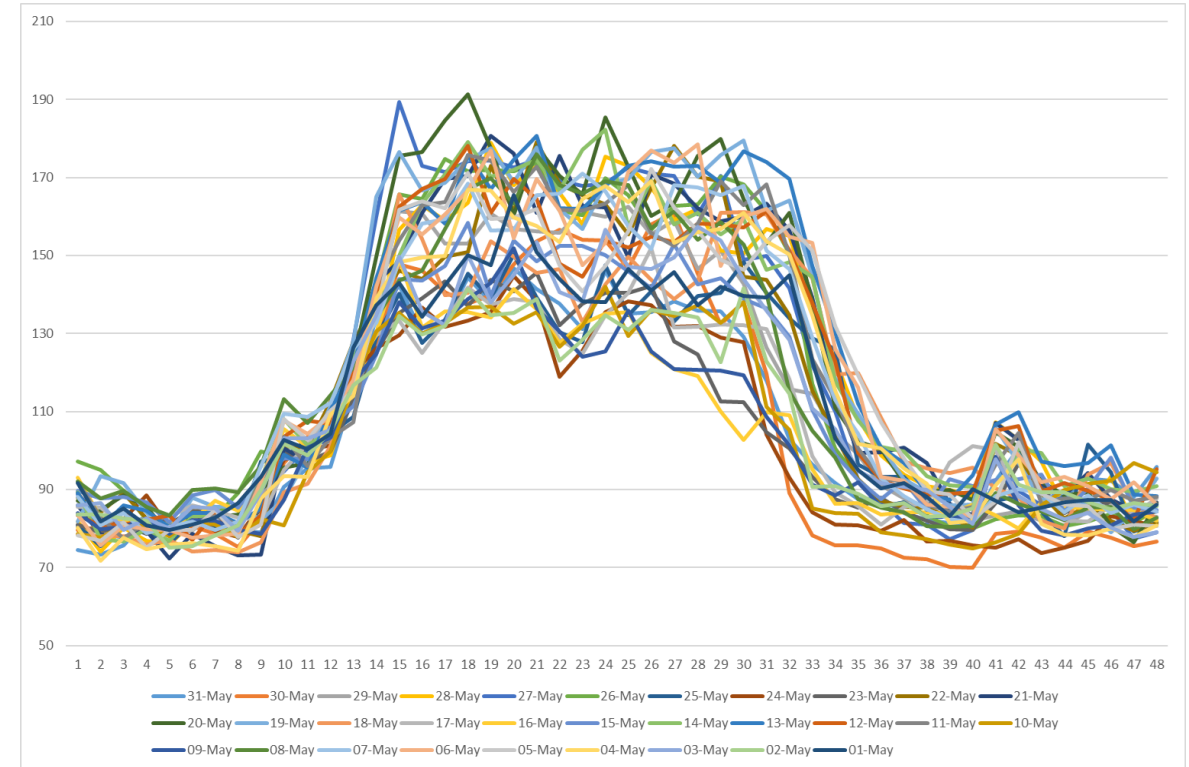


# Volume Challenge

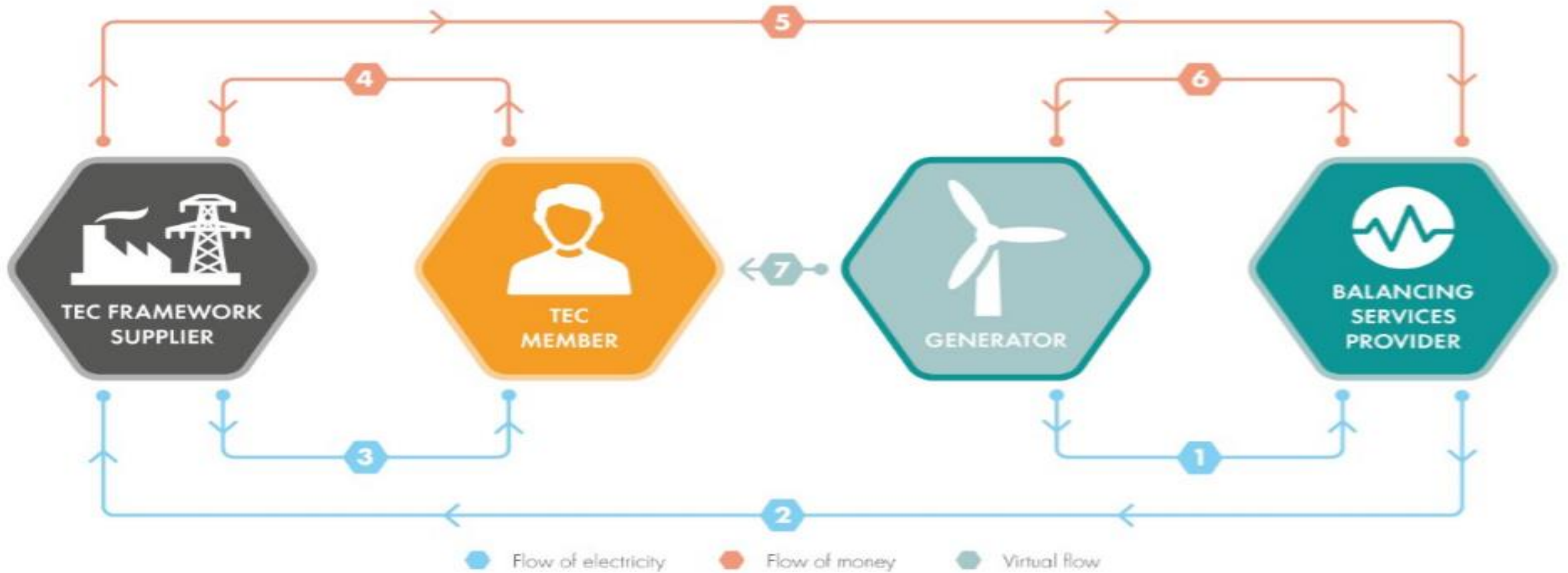
## Wind farm



## Buyer

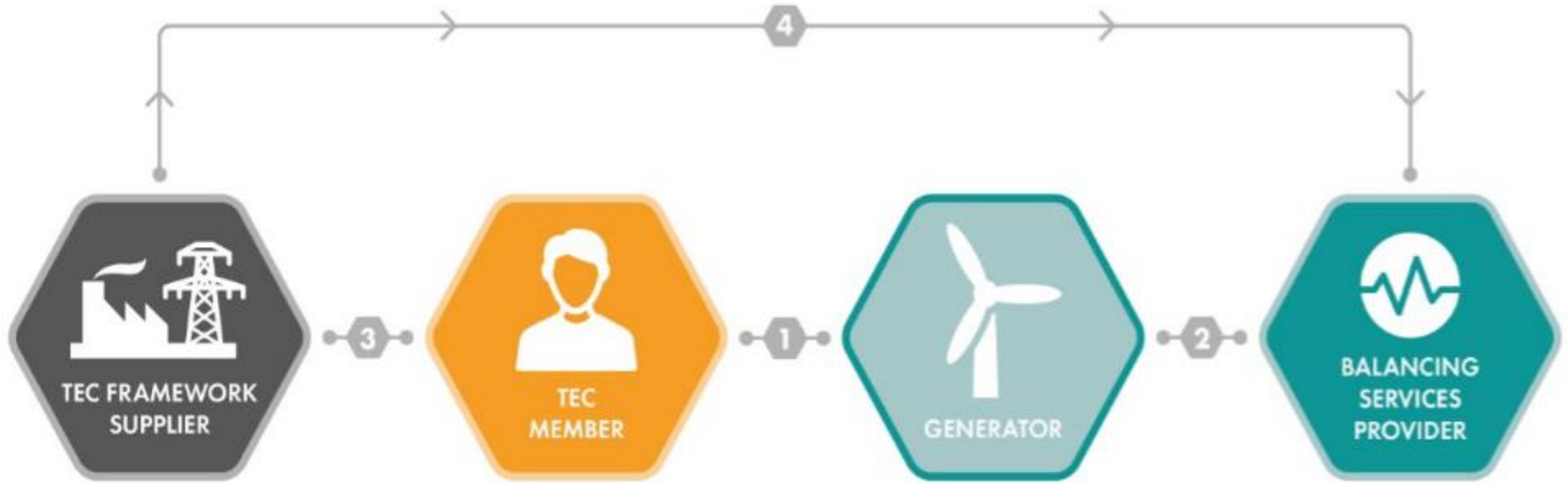


# Electrons & Financial Flows





# Legal Agreements





# What can your Influence achieve?

- Access to this market is possible with collaboration and the right partners
- You can mitigate risk by strategy with the opportunity to commit more/less based on your institutions needs
- Carbon reduction and Climate Change are not going away
- Opportunity for the Sector to support renewable generation
- Cost security and defence of budget

