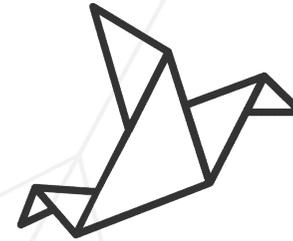


# MAXIMISING THE VALUE OF DISTRIBUTED ENERGY

Alex Howard  
Head of Strategy & Analysis  
Origami Energy

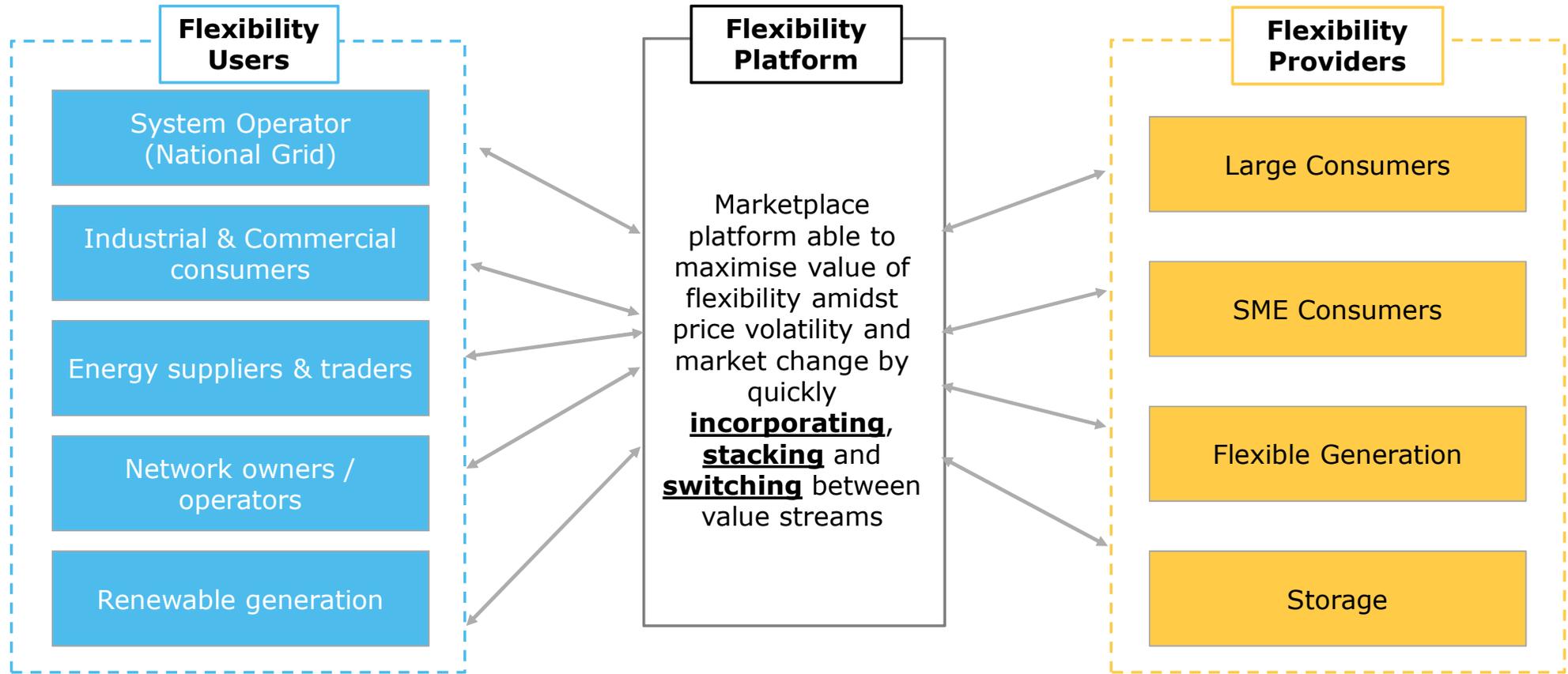


**origamienergy**  
shaping the future of energy

# An increasing number of parties need to care where and when energy is made and used

	Pain point
System Operator (National Grid)	Need to balance a more peaky and volatile system in real time, and ensure security of supply
Industrial and Commercial consumers	>50% of electricity bill now 'non-commodity' charges. Import/export constraints
Energy Suppliers & Traders	Low margins & customer churn. Risk/reward in more volatile wholesale markets
Network owners / operators	Significant upgrade costs associated with occasional (local) peaks in demand or generation
Renewable generation	Scarce network connections and withdrawal of subsidies

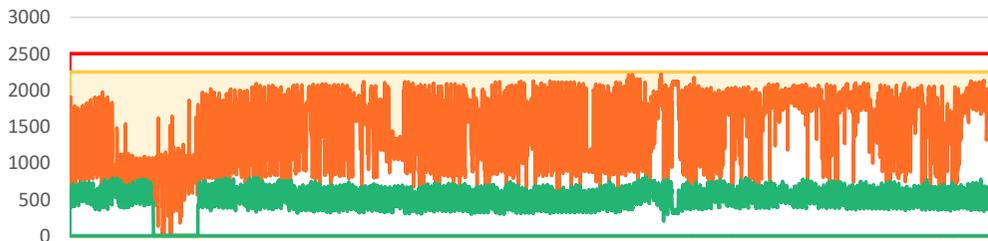
# Origami's vision is for a real-time marketplace for the distributed energy world



# While today's value is concentrated with the SO, there are emerging value cases

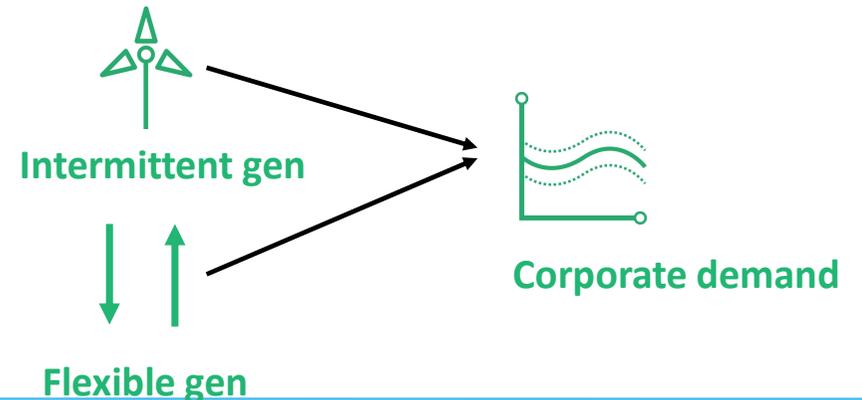
## Local constraint management

- Generation and demand behind single meter
- 2.5MW site export limit
- 2.8MWp CHP generation from AD
- AD price c£140/MWh, incl ROCs
- Current strategy to limit generation to 2.5MW
- Significant value in balancing against demand
- Can be stacked with other services
- Model could be extended to a local area beyond the meter



## Enabling direct supply

- Use flexibility to enable commercial consumers to buy directly from independent generators and manage their own imbalance position
- Reduce supply costs, increase renewable prices and track energy provenance
- Working within Ofgem's Regulatory Sandbox to run commercial trial from early 2018



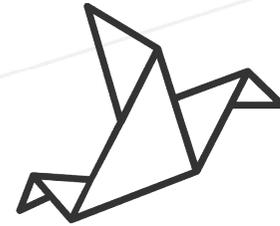
# Policy and regulatory changes required

**Full access to markets for flexibility, eg BM**

**Sharper temporal and locational price signals**

**DNOs to adopt non-wires solutions in earnest pre 2023**

**Listen/adapt for new business models**



**origamienergy**

shaping the future of energy

## THANK YOU

**Alex Howard**



[alex.howard@origamienergy.com](mailto:alex.howard@origamienergy.com)



07391 407250



[origamienergy.com](http://origamienergy.com)