Energy Sector Summary

# Participants

### Suppliers:

* Hold a supply license and purchase power from generators through PPAs. They take on the balancing risk between supply and demand. Suppliers will charge clients a risk premium to cover potential forecast errors or supply volatility.

### Generators:

* Own and operate power generation assets. This includes wind, solar, nuclear, coal, etc. Generators sell power to suppliers through PPAs at an agreed price per MWh.

### Consumers:

* Purchase energy from suppliers. Large industrial consumers may have half-hourly metering and can respond to signals like Triad forecasts to reduce demand during peak times and lower Transmission Network Use of System (TNUoS) charges.

### Developers:

* Work with EPC contractors to design and develop generation projects. They package project risks under a single contract and manage the different suppliers and skillsets needed.

### Ofgem:

* The UK's energy regulator that oversees the gas and electricity markets. They regulate prices and profit margins for monopolies, promote competition, and protect consumer interests.

### National Grid ESO:

* The Electricity System Operator ensures electricity supply and demand are balanced in real time across the transmission network. They also facilitate trading on wholesale electricity markets.

### Distribution Network Operators:

* Own and operate the distribution networks that serve homes and businesses. They are regional monopolies that transport electricity from the transmission system.

### Aggregators:

* Pool distributed energy resources from consumers to sell services like demand response and flexibility to the grid. This allows smaller assets to participate in electricity markets.

### Power Engineering, Procurement and Construction (EPC) Contractors:

* Handle the actual construction and delivery of energy projects. This involves procuring equipment, materials, and labour to build out generation assets like wind farms or solar installations. EPC contractors carry significant risk during the construction phase.

# Flow