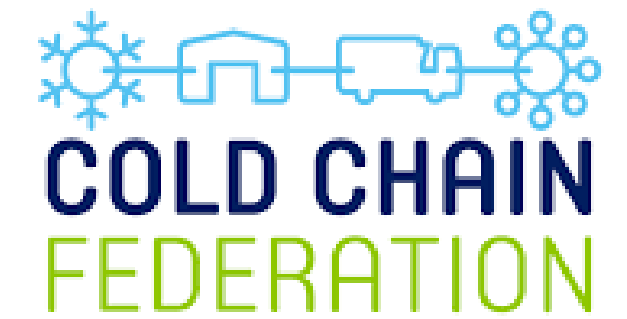


# The Future of Business Energy: Today

## Cold Chain Federation

How to finance behind the meter  
energy generation to reduce your  
costs and meet net zero targets

18<sup>th</sup> October  
2022



# Agenda

- **Introducing Ylem Energy**
- **Energy Prices – The impact on the Cold Chain Sector**
- **How do you mitigate cost increases?**
- **Case Study**
- **Summary & Next Steps**

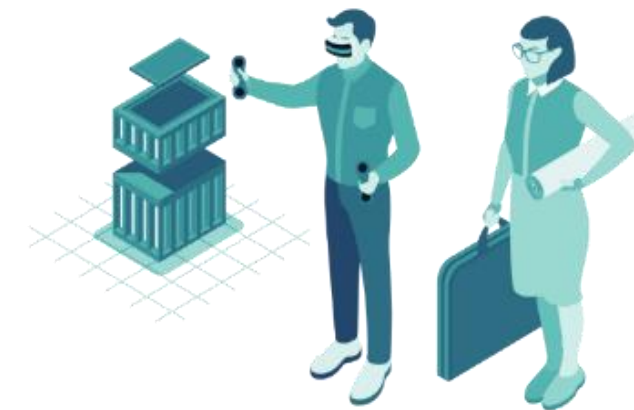
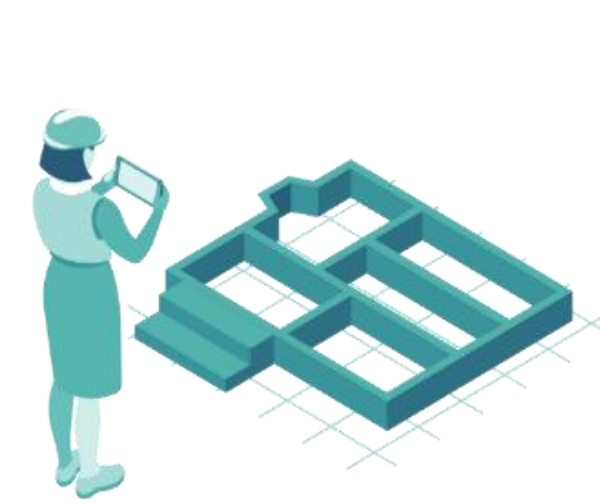
# Introducing Ylem Energy

Martyn Sheridan



# About Us

- **Specialists** in state-of-the-art generation and energy storage systems that fully integrate with the sites they serve
- **Established** 35 years of experience in the Energy Generation industry
- **Risk-free solutions:** we provide the investment that lets you access the latest energy technologies
- **Industry-leading experts:** our world-class support and unrivalled experience gives complete peace of mind
- **On the path to 'Net Zero':** help you transition to 'Net Zero' with carbon off-setting or renewable energy generation and storage





# Businesses we work with and projects





**'Net Zero'**

# **The Impact on I&C Businesses**

Simon Mitchell

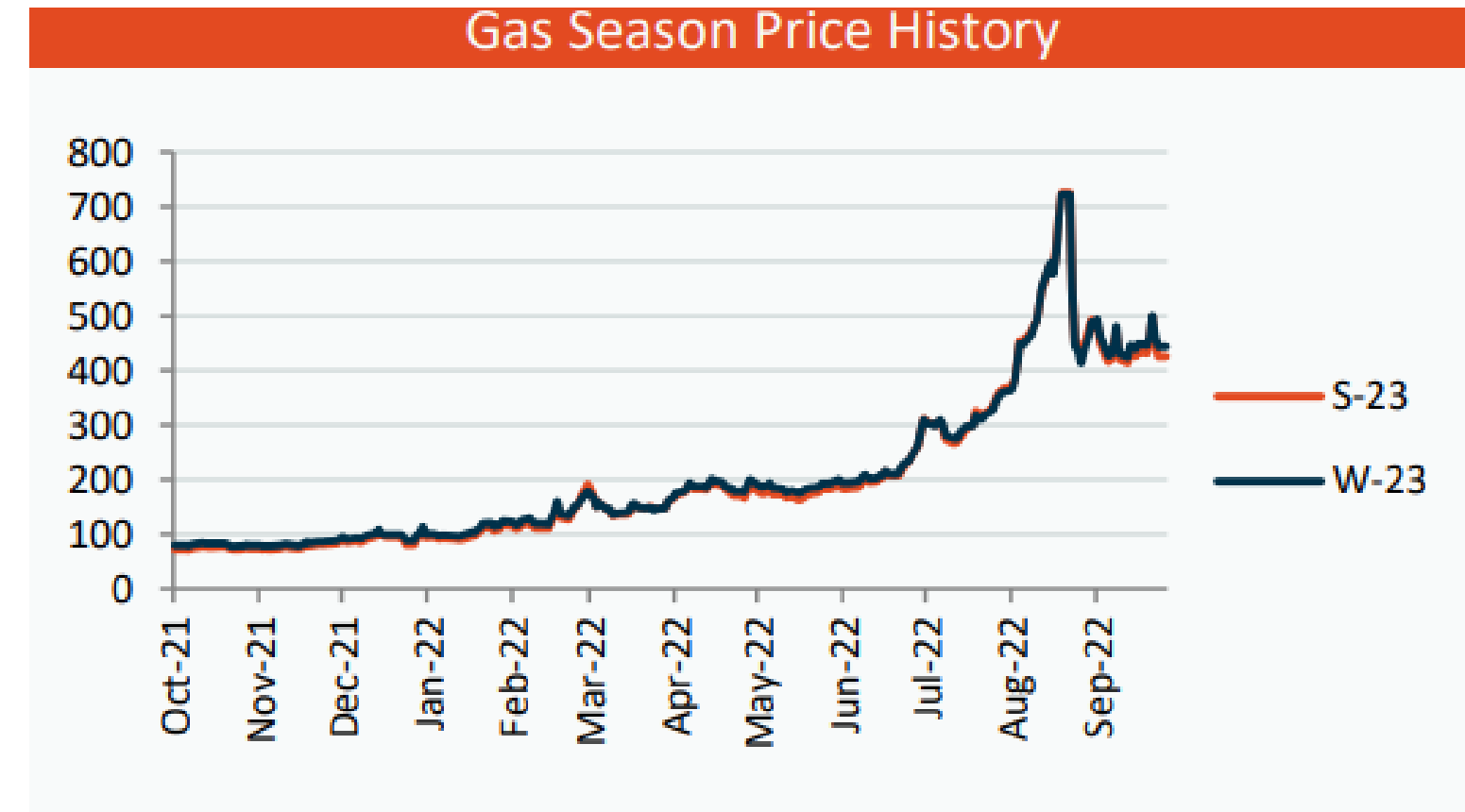
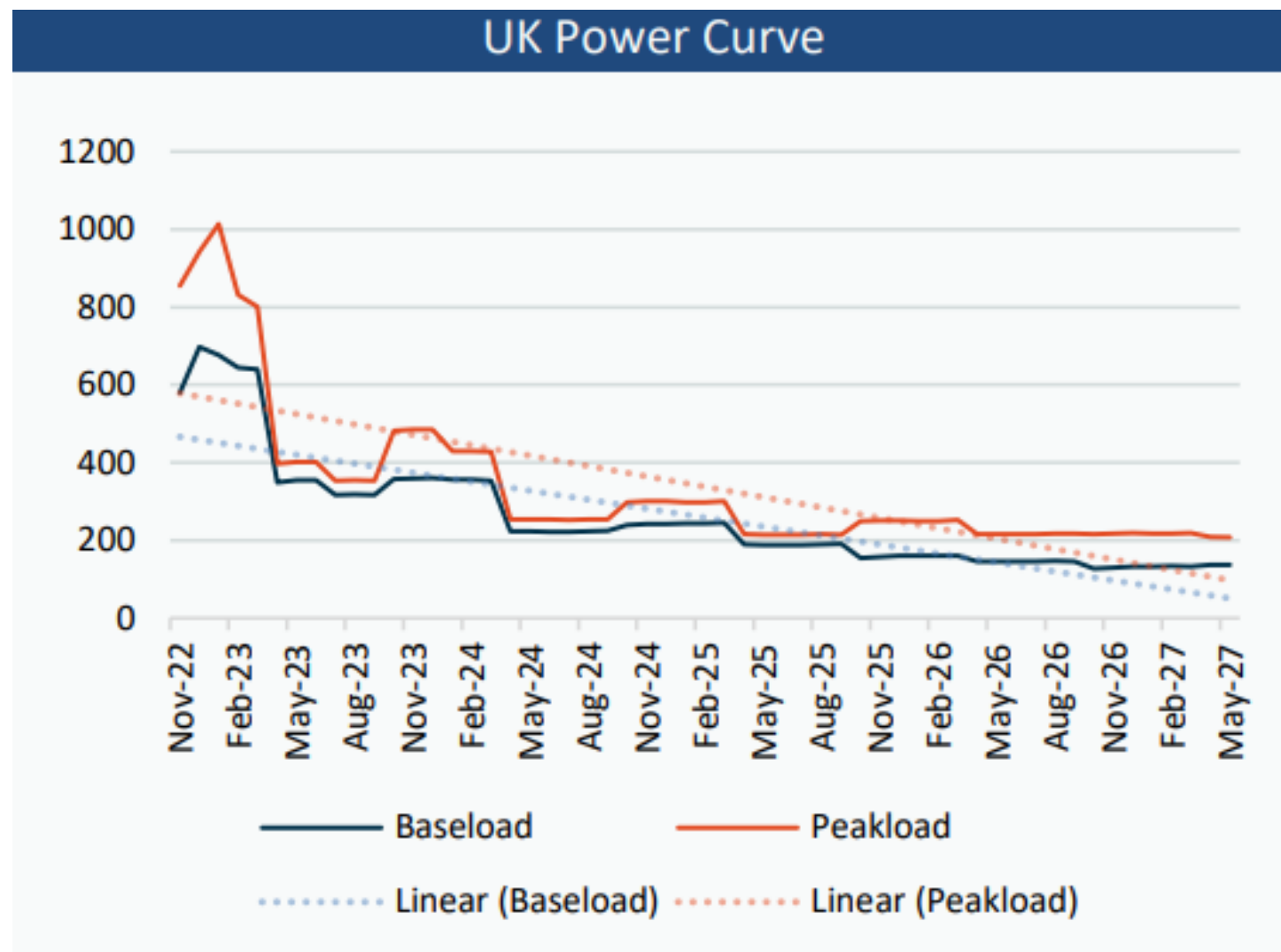




# Net Zero – Wholesale Market Volatility

- **Increased Market Volatility**

2022 has seen severe pressure on both short-term and mid-term power prices



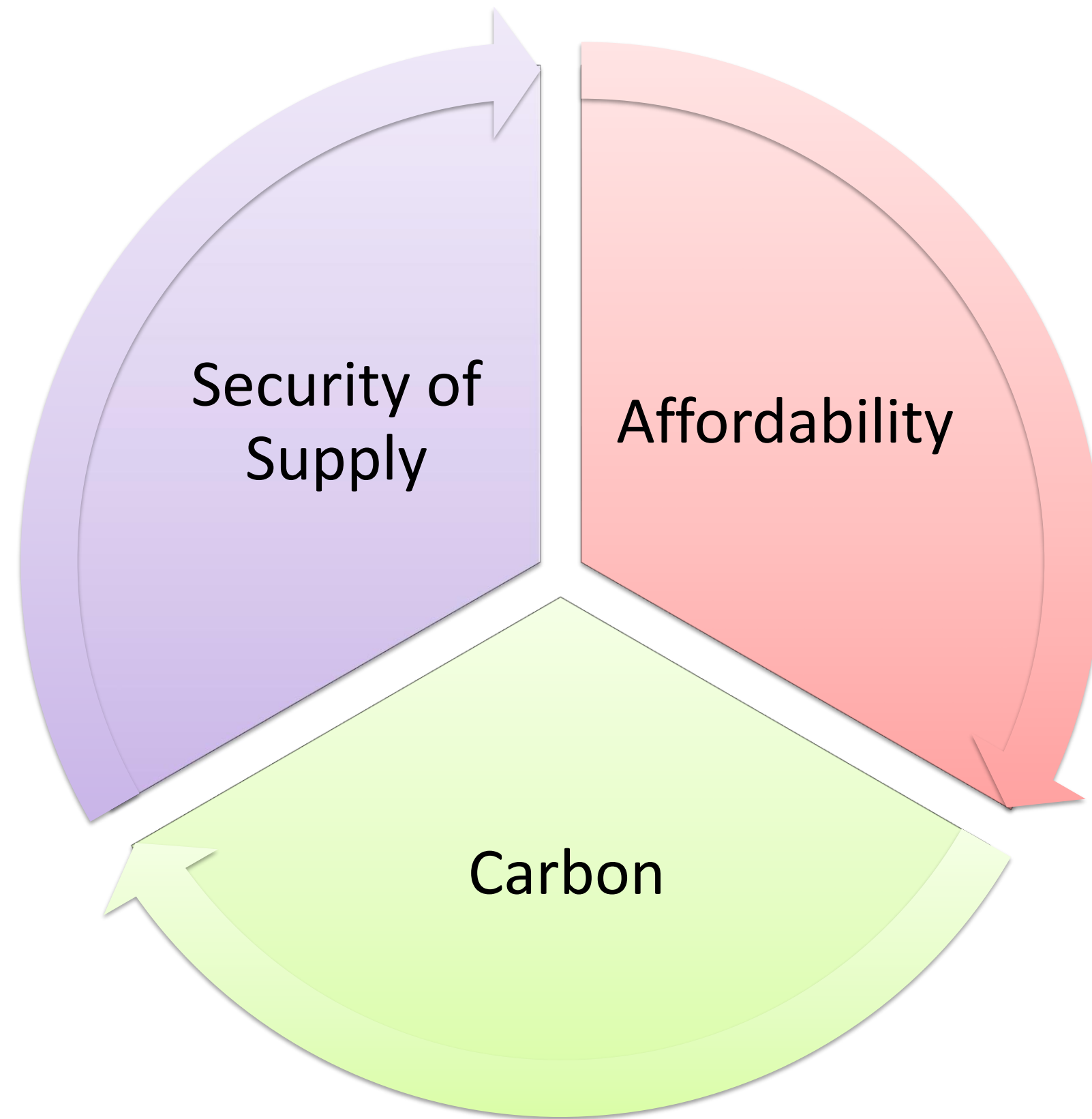
- **The New Normal?**

More renewables, EV charging, heat pumps, green Hydrogen etc. means more pressure on UK infrastructure

- **Plan Ahead**

Companies need to factor wholesale market volatility into future planning.

# The Trilemma is Back



The idea of an energy trilemma has been around the energy industry for decades.

Depending on market conditions where the focus lies has changed accordingly.

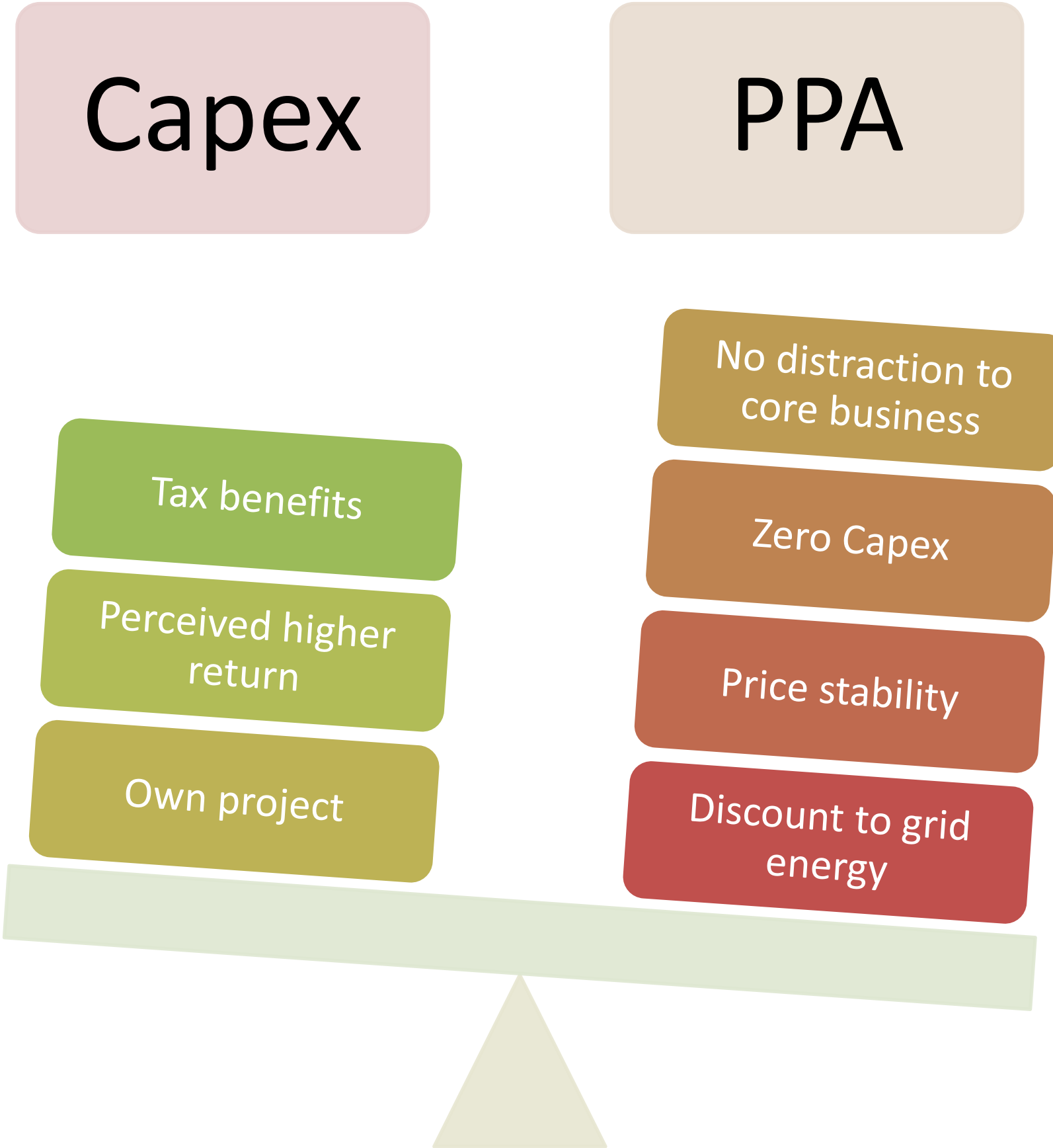
Over the last decade with relatively secure and cheap energy supplies the focus has been on reducing carbon.

With the rapid change in markets and price volatility, this has shifted to affordability and security of supply.

The UK as a whole and businesses need to ensure all three are balanced.



# How to Finance BtM Generation Projects



Ongoing debate for businesses whether to look to invest in a project with own capital or look at funded options.

In an increasingly volatile market with rising interest rates and inflation we are seeing more business move to a funded option to ensure any capital investment is focused on the core business.

Ylem Energy's PPA is a well established product which produced quick and effective results in installing generation on site and reducing both costs and carbon.



# How do you mitigate cost increases?

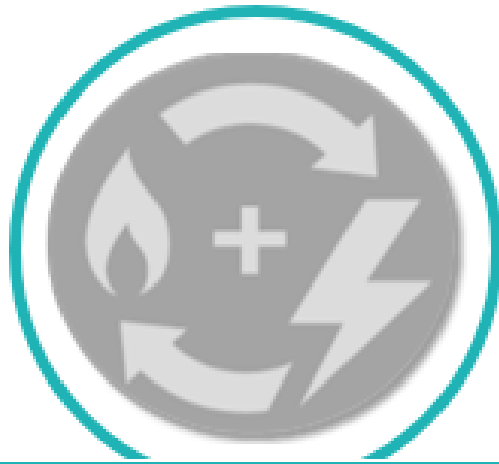
## - Technologies

Martyn Sheridan





# ONSITE GENERATION: A tailored solution for your business



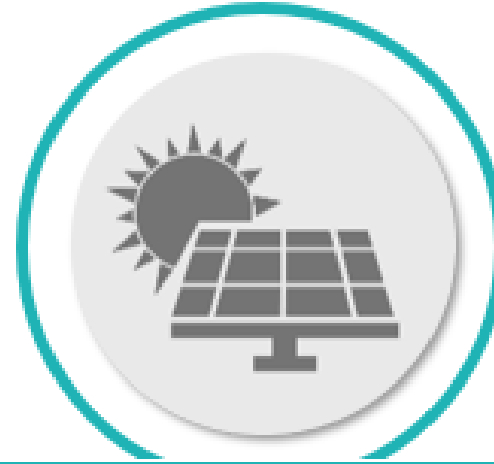
## ONSITE GAS GENERATION SYSTEMS

- Generating electricity efficiently onsite using (hydrogen-ready) gas generation system
- Can harvest the heat generated to off-set energy used to produce heating or cooling within your facility.
- Improved business resilience as you generate electricity at your premises and the grid becomes your primary backup.



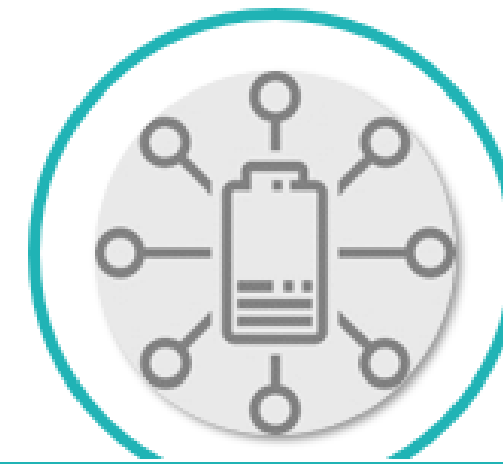
## ADVANCED BATTERY STORAGE

- Storage technologies capture surplus or cheaper energy and release it when needed.
- Can help reduce exposure to peak tariff rates or in smoothing the operation of other technologies.
- Battery storage can also enhance resilience against grid issues such as voltage and frequency fluctuations.



## RENEWABLE ENERGY GENERATION

- Access to leading renewable energy technology including solar PV
- Cost of solar PV has fallen significantly and can provide a meaningful contribution towards off-setting grid demand - at much less than grid costs.



## HYBRID GENERATION & STORAGE

- Where it is appropriate to leverage more than one technology for energy generation (especially with renewables which can have inherent variability) to integrate in batteries onsite
- This can help to smooth power output and ensure consistency in supply



## PROACTIVE ENERGY MANAGEMENT

- Using dynamic data to manage complexities in supply and demand of energy and to optimize efficiencies in the assets and technology in place
- We provide a customer portal to access transparent data and insight on generation and consumption of energy
- We respond promptly to issues to ensure maximum efficiency in asset utilisation

# Case study

Martyn Sheridan





# The Customer: 24/7 Food manufacturing business – main product – Frozen Food



- Consumer based product
- No requirement for hot water/steam
- Large chilled areas
- Own their property and land



- Power export capability
- Good gas connection
- Expects production to increase over next 5 years



- Substantial roof & green space on site
- Adjacent farmland
- Have 3 sites in total
- Based in Midlands area



- Currently paying 8p/kWh for gas and 29p/kWh for power (inclusive price cap)
- Expect this to increase to 10p/kWh for gas and 70p/kWh for power in April 23
- High baseload power requirement 24/7

# The Challenge

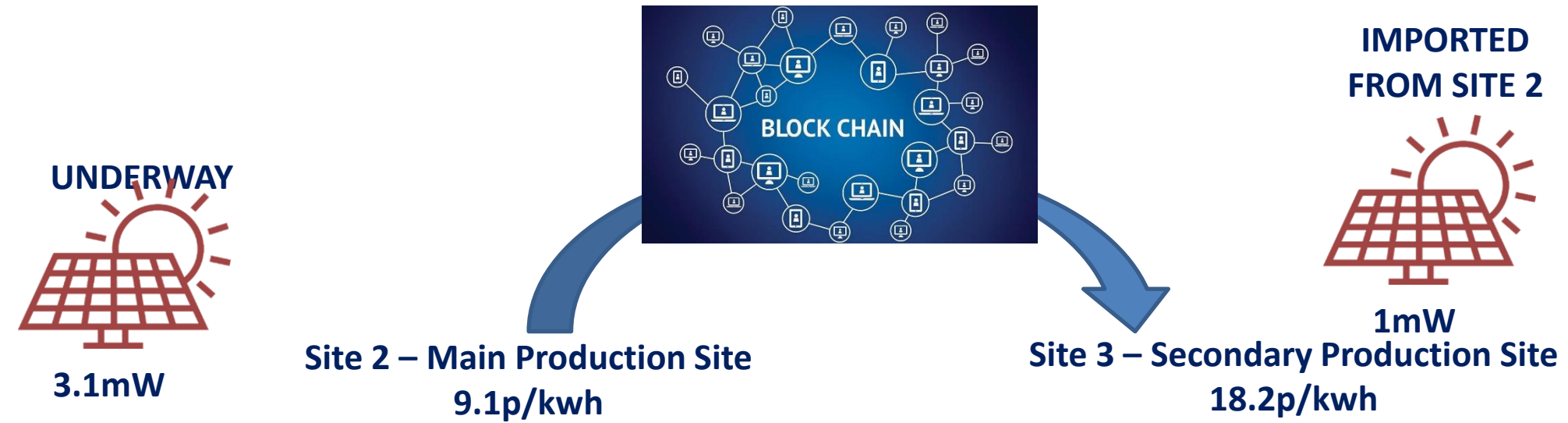
- High demand and large increase in cost forecast
- Product competitiveness is sensitive to their site costs including labour, materials & energy costs
- Pressure to develop a more substantial net zero carbon plan and timeframe delivery
- No in-house energy procurement and supply expertise
- Board wants to invest in modern manufacturing machinery, not energy infrastructure.
- Wanted to make quick decisions to minimise risk of wholesale prices



# The Approach

- Acquired 24 months of HH data
- Acquired last 12 months' power and gas bills
- Reviewed the customer's demand profile
- Understood their site through site drawings, Google Earth and site visits
- Understood current and future strategy and got to know their business and risk profile
- Provided assurance regarding a 10-25 year partnership and contractual commitments
- Modelled various technologies based on site specifics, current/future strategy and demand profile to maximise commercial returns.

# The Suggested & accepted project



Fully Managed Hydrogen ready Gas to Power Solution

**PAUSED**

Metering & Monitoring installed to build up data to identify further efficiencies

**UNDERWAY**



**14 EV units for Site 2**  
**UNDERWAY**

**UNDERWAY**  
520kW

**Site 1 -Offices & Logistics**  
9.5p/kwh





# The Suggested & accepted project

- Fully funded by Ylem Energy
- Fully designed, installed, maintained & operated for contract duration
- All energy created is used on site at Site 1
- Site 2 is over-sized and around 1MW is exported to Site 3
- Guaranteed p/kwh for up to 25 years on all 3 sites
- Financial savings circa £700k per year
- Carbon reduction by over 2,000 tonnes per annum.
- Gas Generation project to be reviewed in January, post announcements

# Rooftop Solar – Warehouse Case Study



- Location – Hertfordshire
- PV Solution (right sized) – 140kW
- PV Solution (full roof) – 350kW
  
- Total Generation – 364,163kWh
- Generation sold to Customer – 234,453kWh
  
- PPA price – 9p/kWh
- Annual Customer Saving - £117k (based on customer rates)
- Carbon Saving – 85 tonnes per annum

**Ylem Energy will fully fund the solution and sell the power required on site for a fixed price.**

**Ylem Energy takes the market risk on the exported power and uses the benefit of this to reduce the PPA price for the customer and offer a fixed p/kWh income.**

# Why fund projects through a Power Purchase Agreement?



You don't want to spend your cash reserve or go into debt



You want to maintain a cash buffer to invest or use as spare working capital



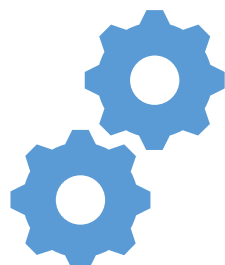
There are constraints on your CAPEX budgets



There is pressure to yield investment returns in 2-3 years



You are unsure of future energy needs which may expand



You want to keep up-to-date with the most effective and efficient technology over the medium term




You understand that the specialist assets and complex management requires external specialists



You want responsive support from a partner with a vested interest in fully functioning equipment





**What do you  
need to do  
next to  
explore  
generating  
your own  
energy?**



# Next Steps

- **Initial Consultation**

An initial 30 minute conversation with one of our experienced energy experts.

- **Listen**

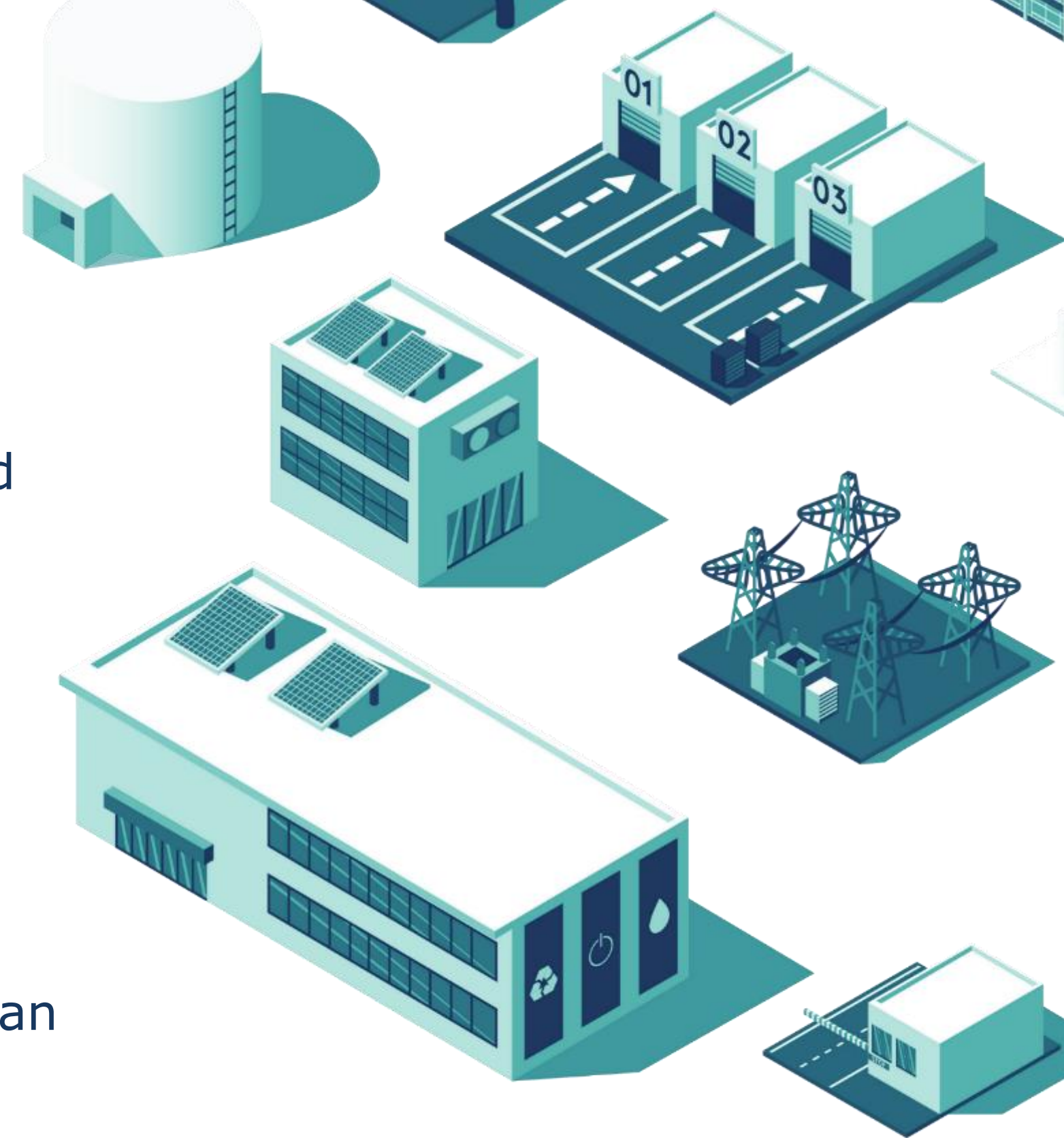
Understand your site(s) requirements and what your main issues and objectives are.

- **Analyse**

Look at some basic data that you can easily provide to have an initial assessment that can deliver value to your business

- **Partnership**

If there is an opportunity to progress a project then we look to establish a long-term partnership to ensure the projects that we deliver on support your business for years to come





# Q & A

Presented by: Martyn Sheridan | Sales Director  
Simon Mitchell | Head of Commercial



# Thank You

## Contact info

Martyn Sheridan

Sales Director

[Martyn.Sheridan@ylemenergy.co.uk](mailto:Martyn.Sheridan@ylemenergy.co.uk)

Mobile +44 (0)7467 762 624