

The smart approach  
to energy



# Introduction

## Simon Mitchell Head of Flexibility at Ylem Energy

Worked in the energy industry for over 17 years, firstly for a large energy consultancy before holding several roles for one of the big six energy suppliers.

Significant experience of the industry with particular focus on the shift from a centralised energy system to a decentralised energy system.

Including the responsibility for the commercial management of distribution connected assets, managing the entry of a distribution connected portfolio of assets into the UK Capacity Market and building Demand Side Response and Energy Storage Solutions for B2B customers.

Currently responsible for growing the flexibility side of the business and bringing new and innovative solutions for customers to the market





Quarter of a century experience in operating generation systems

Operating assets all over the UK

From landfill gas engines to large scale Battery Energy Storage Systems

In house design, build, operate and maintain

Specialising in delivering fully financed smart and flexible generation and storage solutions

 **YLEM**

Sample  
Customers

**DIAGEO**





## Regulatory Impacts



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Ofgem are updating the charging regime

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Imminent changes have put off some customer looking at options now

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Ylem take into account all upcoming changes into modelled savings – inc changes to Triads and DUoS

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Work with customers to understand regulatory impacts



# Rising Energy Costs



Historic low gas and power prices – however, not necessarily seen on invoices.

Wholesale costs now only accounting for approx. 40% of invoice

Continued increase in Third Party Costs on electricity invoices offsetting potential savings from low wholesale market

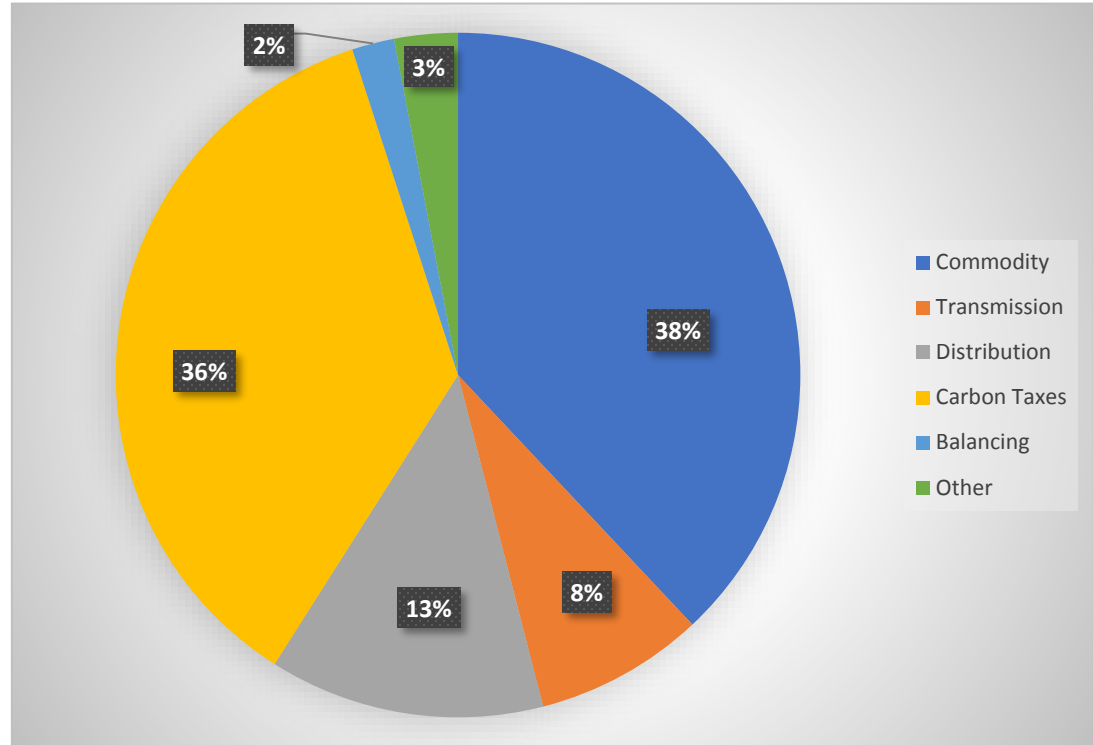
Common consensus these Third Party Costs will continue to rise

Potential to reduce these costs though self generation

## Third Party Costs



## 2020 breakdown of electricity costs (UK average)









# Behind-the-Meter Gas Generation



Supporting the transition to a localised energy system

Installed through our Dynamic Power Purchase Agreement (DPPA)

Opportunities to participate in Demand-Side Response

Complete design and installation service

Operation and maintenance included for life of asset

Units installed with heat exchanger to utilise heat



# Dynamic Power Purchasing Agreement



Ylem Energy will own and operate the asset

Typical 10 year PPA agreement in which Ylem sells the power generated to the customer at discounted rate to whole sale price

PPA covers full installation plus operating and maintenance costs

Zero Capex or ongoing Opex to the customer

The operational risk of the asset is with Ylem – if it is not running customer does not pay



## Benefits



Significant reductions in energy costs

Reduce reliance on grid

Potential to generate income through Demand Side Response and wholesale optimisation

Platform for energy transition and other technologies – such as EV, Energy Storage.

Utilise the heat for either heating or processes

HSCU 190001 3  
45GG

45GG  
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2.9m  
9'6"

  
**YLEM**

*Dovell*

**ENERGY  
STORAGE**



## Battery Energy Storage



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Sized from 250kW upwards

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Improves resilience

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Reduces costs

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Income generation - Balances the grid





Questions???

ENERGY  
STORAGE



The background image shows a large industrial facility. On the left, there is a tall, dark cylindrical tank and some green structural elements. In the center and right, there are large, light-colored metal containers. One container has the 'YLEM' logo in blue and green. Another container is painted bright yellow and green with the words 'ENERGY' and 'STORAGE' in large white letters. A blue rectangular box is overlaid in the center of the image, containing contact information.

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