APSE Future Focus Seminar:

Taking control of energy price risk through your net zero journey

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About us – Commercial Services Group

About us - LASER

History

- Formed in 1989, 30+ years experience of energy procurement & energy management
- Compliant frameworks for the public sector
- Work with over 200 public sector bodies

Team of experts

- ~100 staff across a range of specialisms
- Energy procurement, customer services, billing services, energy management, reporting, net zero

Track Record

- >£600m per annum group spend & >80,000 meters
- >£100ms savings delivered through procurement, energy reduction and bill validation services

Net Zero Mission

- Last 1-2 years our focus has shifted to support the Net Zero agenda
- Frameworks and services developed to support Local Authorities with the end to end journey

Key messages for this session:

- **Energy economics are changing; the outlook for energy costs very challenging if no action is taken**

- **The changing landscape means now is the time to push forward with both your short and long term plans as part of a net zero strategy**

- **Collaboration and forward planning are key to success**
  - Insight into developing a net zero strategy with Kent County Council

Recap on Net Zero drivers

UK Government commitment to net zero

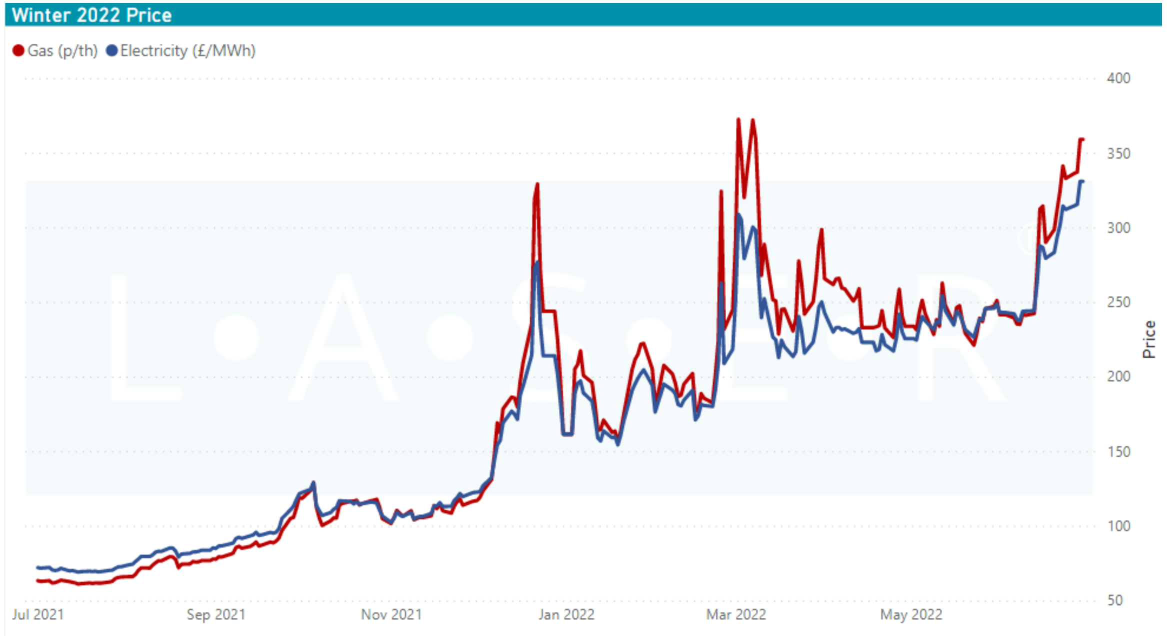
- Target to get to **net zero by 2050**
- Will require **£50b of investment annually**
- Most Local Authorities have **declared a Climate Emergency** and committed to Net Zero, typically ~2030

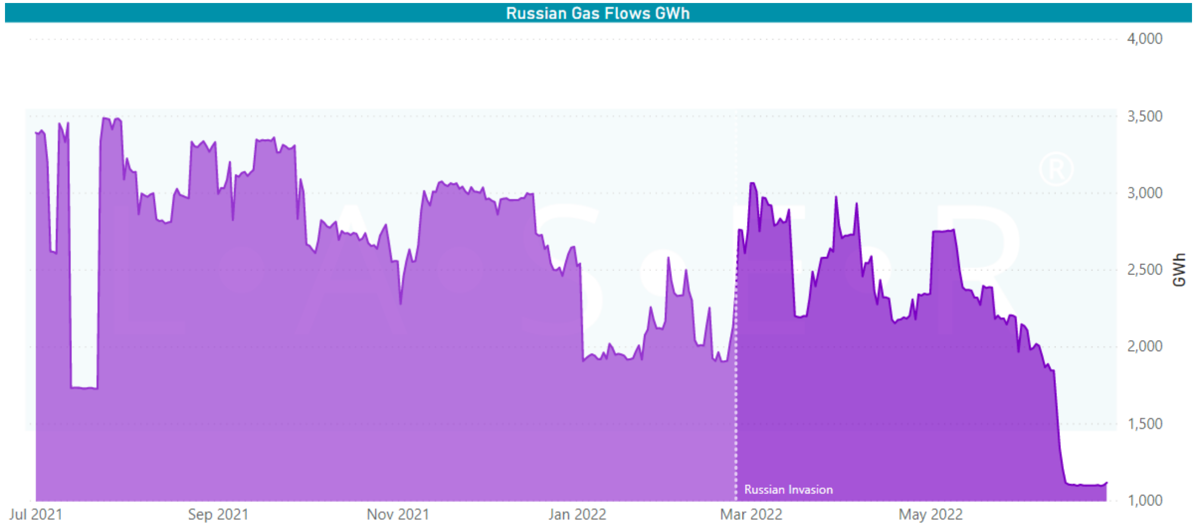
Policy & Funding Changes support the transition

- **Policy changes** such as *Green levies moving from electricity to gas*; or the *New Minimum Efficiency Standards* on council buildings
- **Public Sector Decarbonisation Scheme** – Phase 1 (£1 billion), Phase 2 (£75 million) and Phase 3 (£1.425 billion).
  - *Phase 3b application window planned for September 2022.*
- **Public Sector Low Carbon Skills Fund** – Phase 3 recently closed, £14m for heat decarbonisation

Energy markets

- We have seen 6-9 months of extreme volatility in the energy markets, with **unprecedented price increases since the Russian invasion of Ukraine.**
- Market swings of 20% to 30% of energy commodity prices seen **within the same day.**
- Prices for the Winter-22 season began to settle to low- to mid-200s (£/MWH and p/therm) which for context is **still 3-4 times the commodity price seen in Summer 2021,** however further volatility and market spikes seen in late June & early July.





- Reduced gas flows from Russia to Europe have resulted in a **much heavier reliance on LNG imports**, namely, from the US.
- Overall remains a **very volatile situation due to ongoing geopolitical factors & security of supply**.
    - E.g. recent outage of LNG from Freeport (US) caused short term spikes in June.

A challenging outlook

Short Term:

- Near term prices are very much dependant on the **UK and Europe's ability to replace Russian imports.**
- Reduced gas flows from Russia to Europe have resulted in a **much heavier reliance on LNG imports**, namely, from the US.
- Overall remains a **very volatile situation due to ongoing geopolitical factors & security of supply –** recent issues such as outage at the US Freeport (LNG) and planned maintenance of Nord Stream 1 adds to short term volatility.

Longer Term:

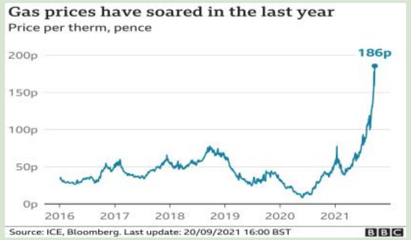
- Longer term, prices may reduce as supply security is restored **and if domestic energy generation is ramped up.**
- Worth noting even if commodity costs stabilise, **non-commodity costs are projected to continue increasing in the long term.**

Critically however, the likelihood of returning to delivered energy prices seen in 2021 are low in both the short and longer term (next 5-10 years).

There are, however, many variables that can change; the dynamics of the energy market have rapidly changed and strategies must adapt too.

A lack of energy & carbon reduction will simply lead to ongoing high costs.

Why now: a changing landscape



Politics

Public opinion shifting (ER protests, Green Party)

Impacting policy decisions

Media attention – energy markets & lack of action

Funding

Significant funding rounds, albeit oversubscribed

Essential to be prepared; project plans and feasibility

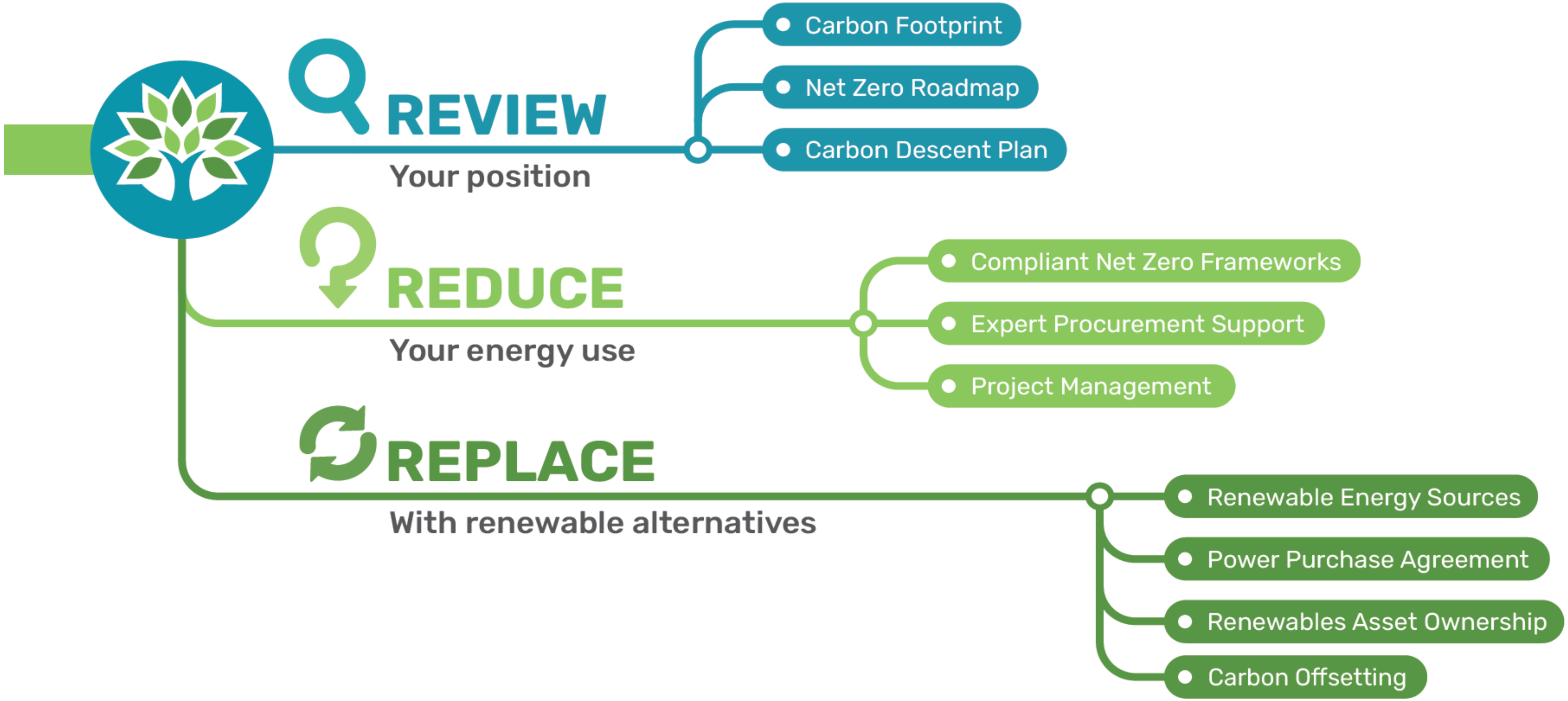
Energy Economics

Short term; impact on Business Cases, e.g. LED projects dropping to 2/3 year paybacks

Long term; need to mitigate future high energy costs

Essential to have a Net Zero Strategy and forward plan in place

Approach developed with Kent County Council

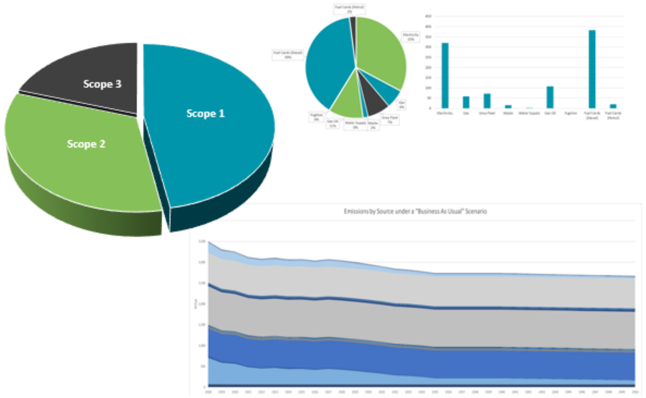


KCC Journey: Review

Our team worked with KCC key stakeholders to develop a Carbon Descent Plan using three stages:

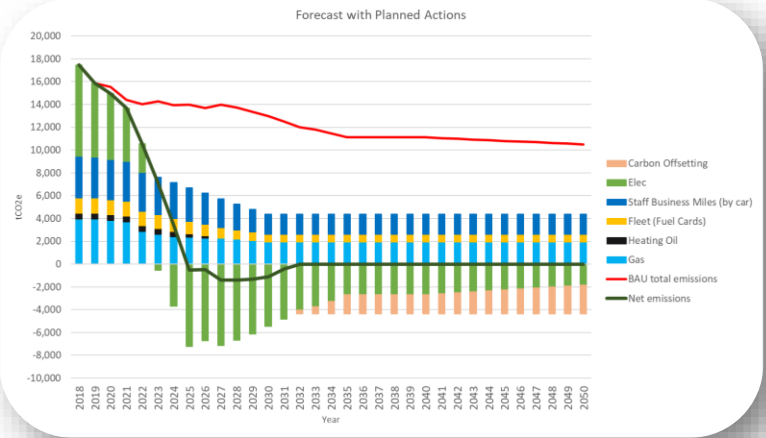
Stage 1: Footprint & Forecast

- Agreed scope and calculated carbon footprint baseline
- Helped understand emissions and longer term impact



Stage 2: Modelling

- Assess impacts of current & future projects
- Understand various scenarios - 'Do Nothing' through to net zero by 2030 - and carbon & financial implications



Stage 3: Action Plan

- Outlined an action plan
- Converted into Carbon Descent Plan; including investment required for projects, savings/ income, breakeven year and carbon offsetting

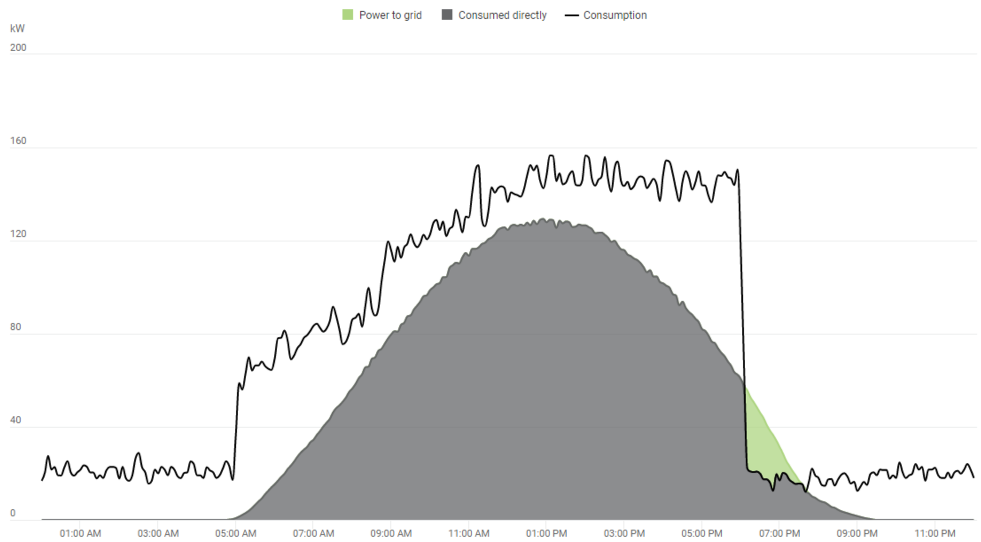
The actions included in the modelling were:

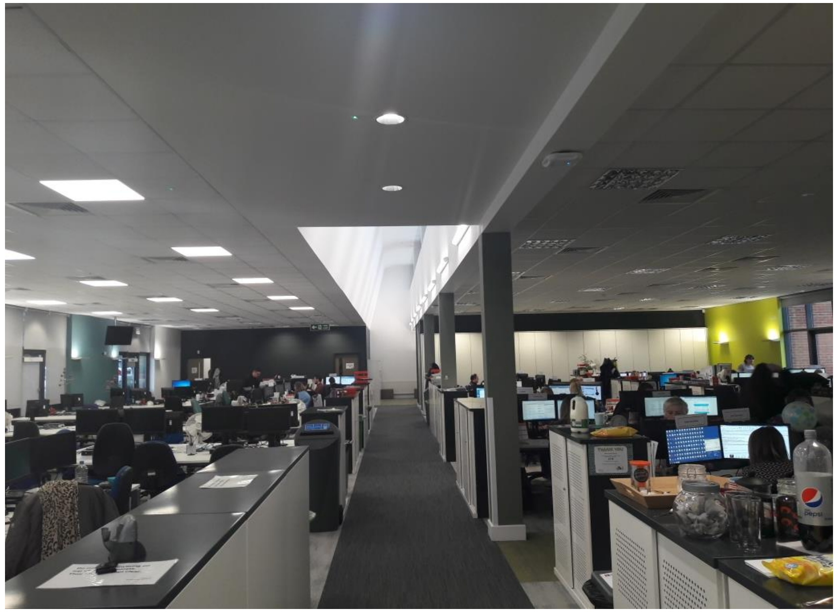
TRANSPORT	Reduce business miles travelled by **33%** by 2030
	70% of business miles to be via electric vehicle by 2030
	Reduce fleet mileage by **10%**
	80% of fleet miles to be via electric vehicle by 2030
ENERGY EFFICIENCY	Roll out LED lighting in all buildings where practicable
ELECTRICITY GENERATION	Install solar PV on roofs of 16 more corporate buildings
ESTATE RATIONALISATION	Reduce buildings estate by **35%** by 2030
REDUCE HEATING EMISSIONS	Build town centre renewable heat network
	Switch remaining oil boilers to gas
	Move **30%** of gas heating to heat pumps
CARBON OFFSETTING	Offset remaining emissions from 2030 onwards through an offset scheme

KCC Journey: Reduce

Net Zero Frameworks & Project Management

- Accessed net zero frameworks for technologies incl LED Lighting and Solar PV projects
  - Worral House Project – 50% reduction in electricity usage
- EV strategy – currently working with KCC about rollout of EVs to their own fleet
  - Social value impact – successful funding from Highways England for Kent SME ‘REV’ scheme





After Before

KCC Journey: Replace

There are different options available to make the move to true renewable energy:

1) **Supplier Green Tariff (REGO) –** suppliers are required to ensure a certain proportion of their energy mix is from renewable generators

2) **Green Basket –** unique solution developed by LASER. A collective approach to purchasing electricity from renewable generators

3) **Power Purchase Agreement –** a third party agreement between a renewable generator and the Local Authority (i.e. not via your electricity supplier)

However, the truest route to 'Replace' is considered **owning & managing a renewable generation asset**

Important factors to consider to your organisation	OPTION 1 Green Tariff	OPTION 2 Green Basket	OPTION 3 PEPPPA
Volume Commitment	Annual	2-4 years	10< years
REGOs	Yes	Yes	Yes
Direct Funding of Renewables	Minimal	Yes	Yes
Traceability	No	Yes	Yes
Additionality	No	Unlikely	Yes
Lead time to delivery	Within a year	Within a year	Up to 36 months
Ease of Procurement	Very High	Very High	High

KCC: Benefits of owning a renewable asset

Bowerhouse II

21MW Solar Park
Owned by LASER and Kent County Council

Generation Capacity
Generates equivalent of ~60% of KCC 's electricity demand

Energy Price Risk Mitigation
Buying at pre-hedged prices but Selling into a higher market

De-carbonisation Benefits
Green Certificates retired to demonstrate carbon reduction (30% of KCC footprint)

Closing Thoughts

- **Do not think of your energy contract spend and net zero plans as separate things**; develop your Net Zero roadmap to manage future price risk.

- **Don’t wait** – energy economics have changed and higher energy costs are not going away; revisit short term project opportunities and recognise it takes time to develop the longer term solutions.

- **Be ready for funding rounds**, most are over-subscribed, so be prepared to bid, procure and deliver at short notice. We don’t know what the future of funding will be.

- **Collaborate & share learnings**; we have some steep learning curves (acquisitions and PPAs are very complex!) from supporting KCC and are happy to share our experiences.

We currently support a number of Local Authorities with PPAs & renewable energy solutions and we are actively exploring further collaboration and Joint Venture opportunities

Thank you for your time.

Please contact us if you have any questions:

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