Natural Resources
WEBINAR SERIES
Energy

Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice

Agenda

- Current UK Market and Role of Renewable Technology
- Mix of renewables in the market and how they will drive us to Net Zero
- Changes in technology
- What Options are available to developers and site operators
- What does that mean for landowners?
- What's next?

Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice

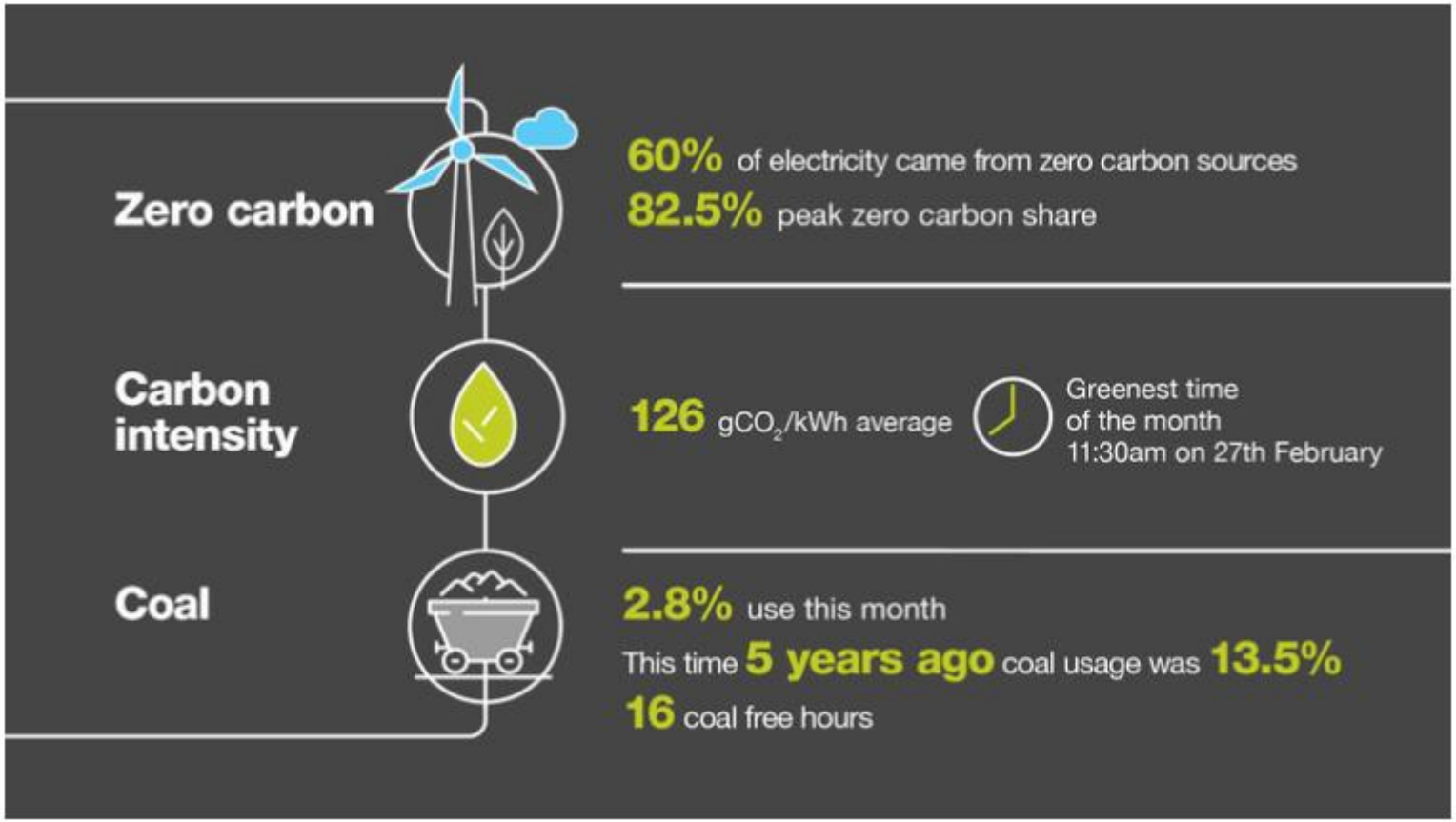
UK Electricity Market – Current Mix

CUMULATIVE INSTALLED CAPACITY (MW) [note 1]	2019	2020	Annual per cent change	2019 3rd quarter	2019 4th quarter	2020 1st quarter	2020 2nd quarter	2020 3rd quarter	2020 4th quarter	2021 1st quarter	2021 2nd quarter	2021 3rd quarter	Quarterly per cent change [note 11]
Onshore Wind	13,994	14,102	0.8	13,962	13,994	13,963	13,965	13,967	14,102	14,130	14,224	14,368	2.9
Offshore Wind	9,888	10,383	5.0	9,702	9,888	10,114	10,383	10,383	10,383	10,393	10,666	11,066	6.6
Shoreline wave / tidal	22	22	0.0	22	22	22	22	22	22	22	22	22	0.0
Solar photovoltaics	13,224	13,462	1.8	13,158	13,224	13,306	13,334	13,420	13,462	13,569	13,625	13,689	2.0
Small scale Hydro	405	405	0.1	405	405	402	403	403	405	421	422	423	4.7
Large scale Hydro	1,473	1,471	-0.2	1,473	1,473	1,471	1,471	1,471	1,471	1,471	1,471	1,471	0.0
Landfill gas	1,055	1,055	-0.1	1,055	1,055	1,055	1,055	1,055	1,055	1,055	1,055	1,055	0.0
Sewage sludge digestion	247	247	0.0	247	247	247	247	247	247	247	247	247	0.0
Energy from waste	1,321	1,447	9.5	1,150	1,321	1,362	1,362	1,412	1,447	1,467	1,467	1,467	3.9
Animal Biomass (non-AD) [note 2]	129	129	0.0	129	129	129	129	129	129	129	129	129	0.0
Anaerobic Digestion	530	538	1.6	530	530	537	537	538	538	540	540	541	0.5
Plant Biomass [note 3]	4,543	4,553	0.2	4,519	4,543	4,552	4,552	4,552	4,553	4,555	4,556	4,556	0.1
TOTAL	46,832	47,813	2.1	46,352	46,832	47,160	47,459	47,600	47,813	47,998	48,424	49,033	3.0
Co-firing [note 4]	0	0		0	0	0	0	0	0	0	0	0	

Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

UK Electricity Market – Current Mix



Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

How do we hit that 100% target?

- Decommissioning of coal fired power stations
- Less imports
- Changes in Policy
- Changes in Public Perception
- Installation and deployment of more Renewable Generators

Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice

Renewable Technology is only temporary

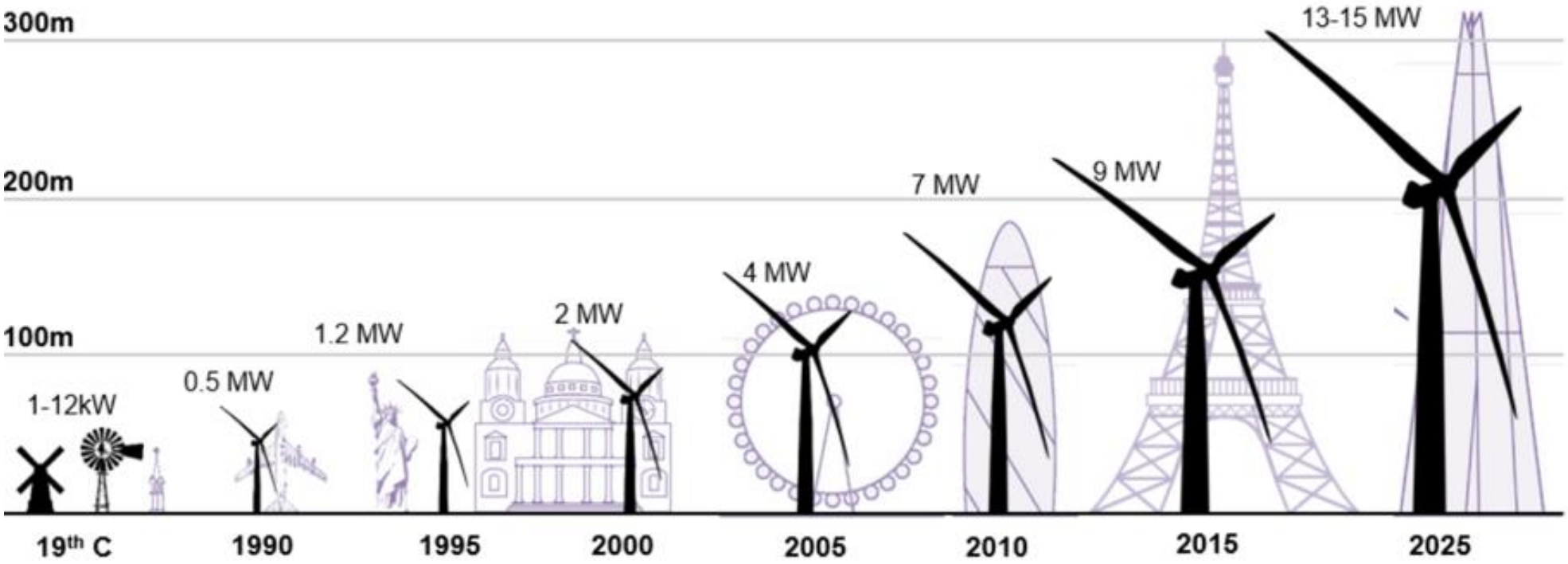
- Planning permissions for renewable energy developments is temporary
- Wind and Solar installations on a utility scale are generally 20-25 years which falls in line with the planning permission
- Technology driven with the lifetime based on the ability of the equipment to work for that length of time
- Decommissioning requirements

Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice

Technology changes

Technology has increased in size, and therefore power has increased



Sources: Various; Bloomberg New Energy Finance

Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

What options do operators have?

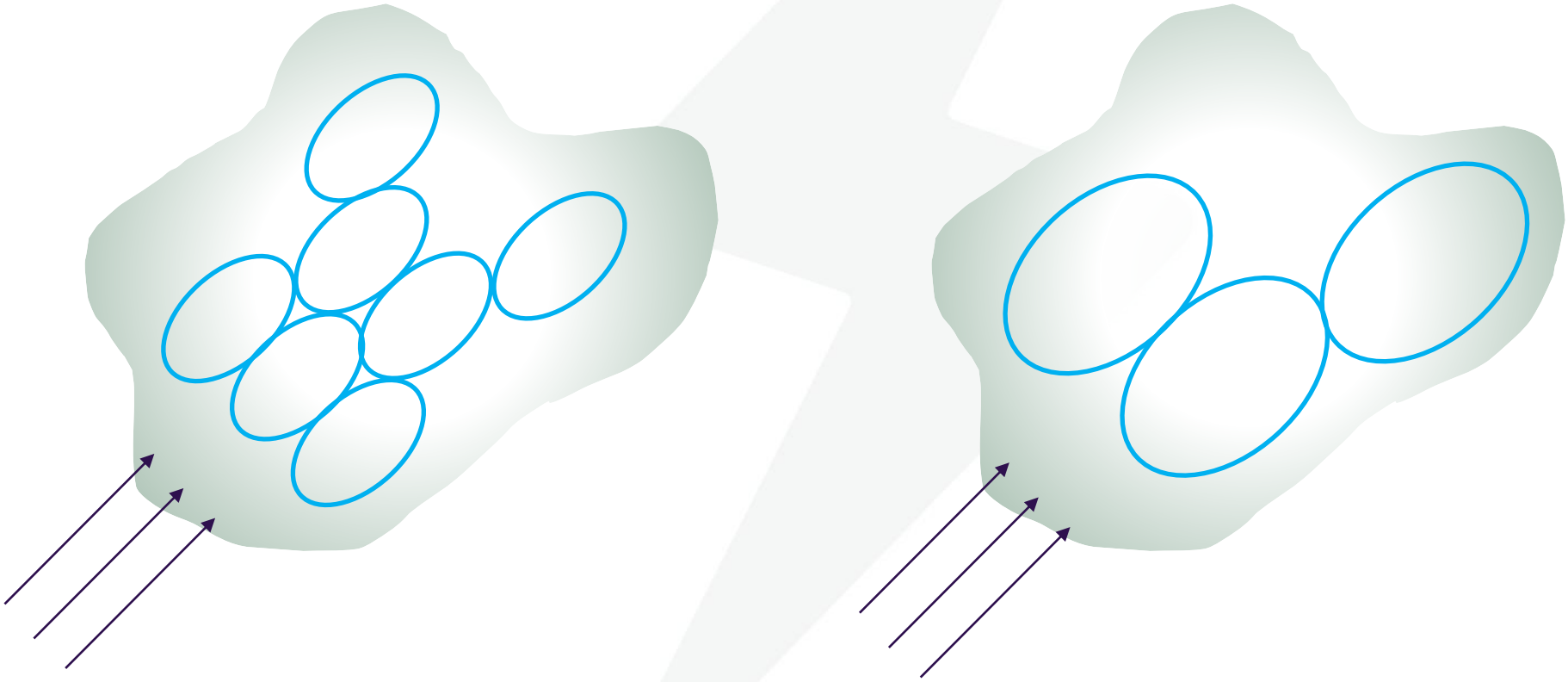
- Developers will look at several options at the expiry of the term
  - Lease extension
  - Re-powering

Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

So what does that mean for the landowners?

- Increased Power output = Rental increases
- Ability to use existing infrastructure
- Planning argument easier given its already an accepted site location



Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice

Are there any alternatives?

Walk away, another type of development

Another energy development?

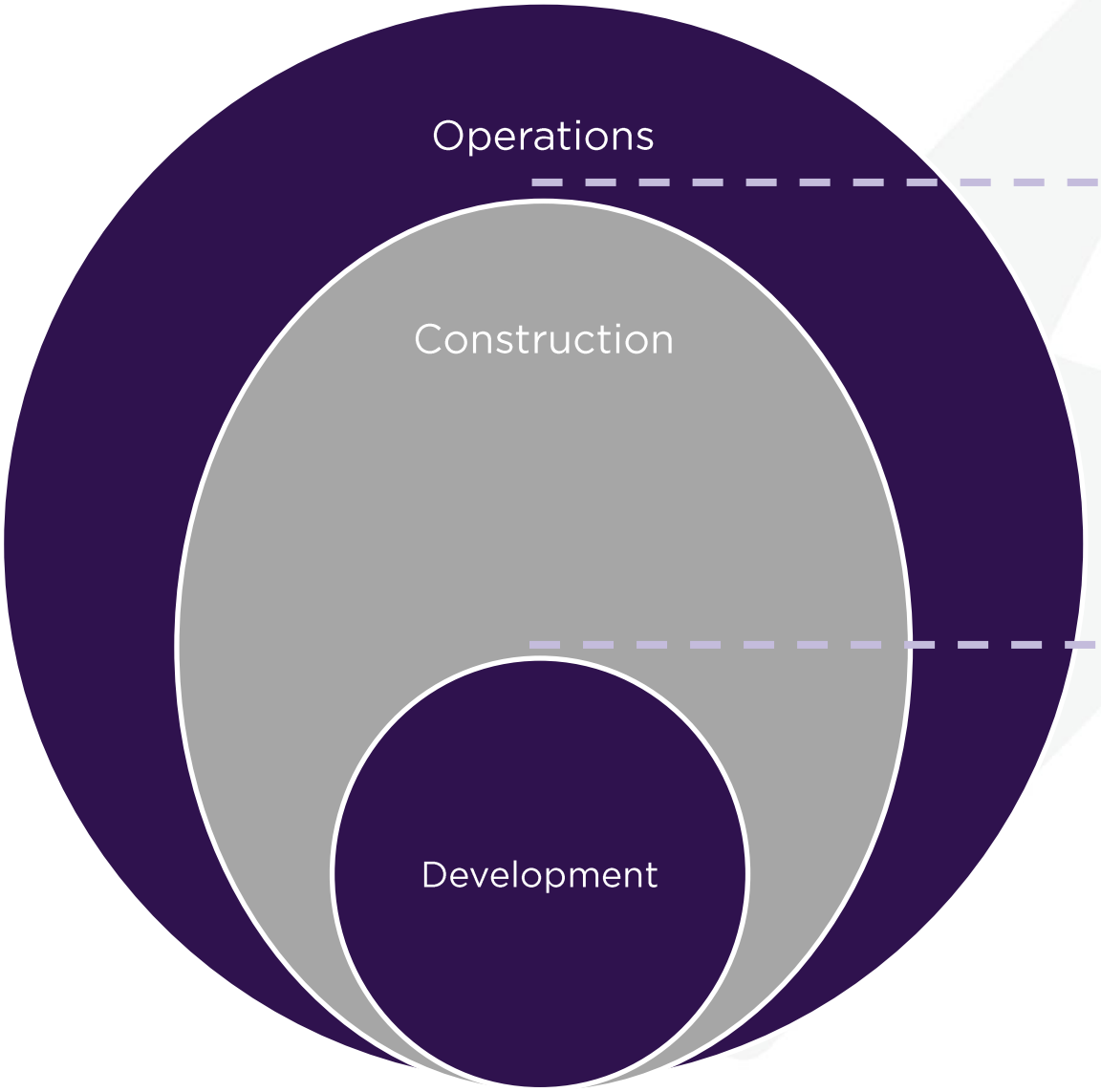
- Option and Lease
- Ability to secure you a different agreement?
- You have the experience of knowing what worked and what hasn't from the previous development

Self develop?

- Self develop
- Smaller scheme to offset on site usage?

Natural Resources
WEBINAR SERIES
Energy

Promotion agreement



£

After a period of successful operation, projects are often sold or refinanced again

£

Once complete projects are often sold or leveraged

£

Most developers will either sell project rights to fund further development or leverage them to fund construction

Value released is known as the DEVELOPER PREMIUM

Developer Premium – indicative 50MW/200ac scheme

Freehold investment value – the landlord's value

- Calculated on a similar basis
- A risk-adjusted discount rate applied to the income received over the lease term

Project rights value – the developer premium

- Energy assets & sites are valued with reference to projected future income
- Typically on a Discounted Cashflow Basis with reference to a discount rate
- Developer Premium is the net present value (NPV) of the cashflow

Total Gross Land Area (Acres)		200
Installed Capacity (MWp)		50
Project Rights Value (gross)/MW		£120,000
Grid Costs/MW		£60,000
Project Rights Value (net)/MW		£60,000
Developer Premium		**£3,000,000**
Total Rent (per acre/ annum)	£1,000	£200,000
Freehold Investment Value	ARY 6%	£3,333,333
TOTAL VALUE CREATED		£6,333,333

N.B. Values provided for illustrative purposes only

£

Most developers will sell or leverage project rights to fund development or fund construction

Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

Is there a better way?

Contemporary approach

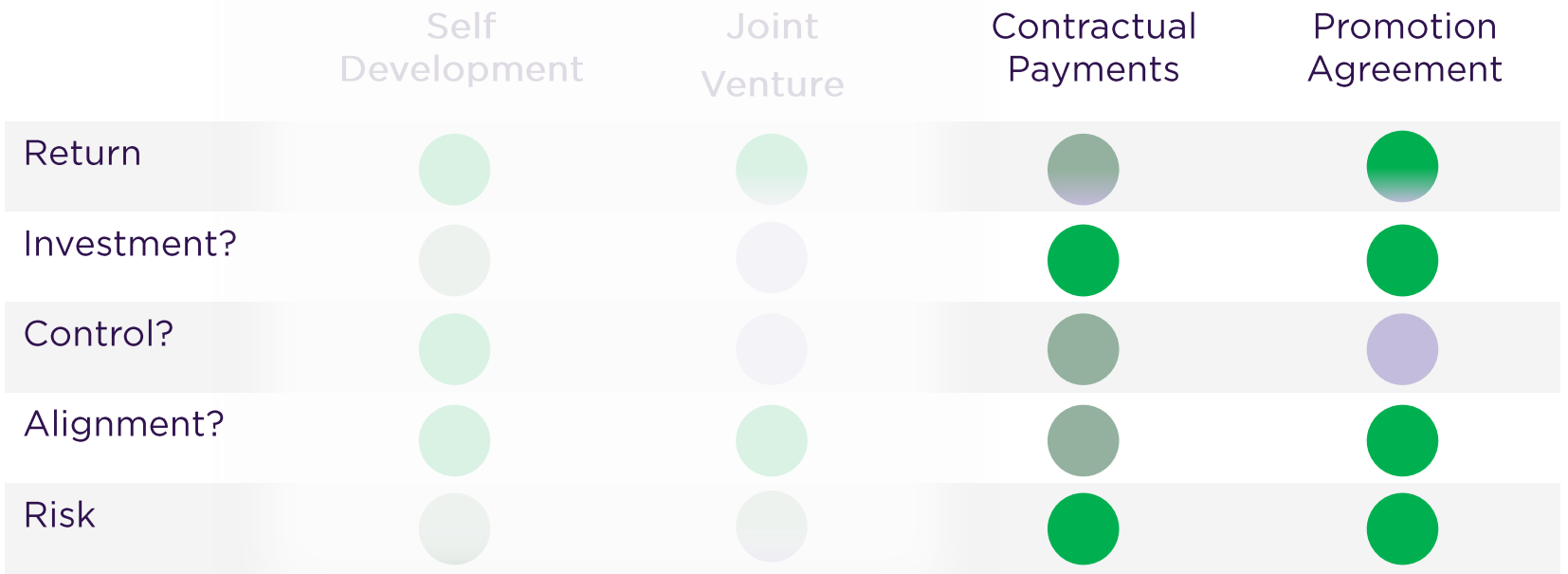
There are zero-risk options requiring no capital commitment

Pressing for payments to landowners at milestones

Often resisted as it undermines funding strategies and established business models

Alternative approach is a promotion agreement

Offers higher returns, more control and importantly, an alignment of interests



Promotion agreement

How does it work in an energy context?

Take the total value created from Slide 6

Less Costs

= Net Value

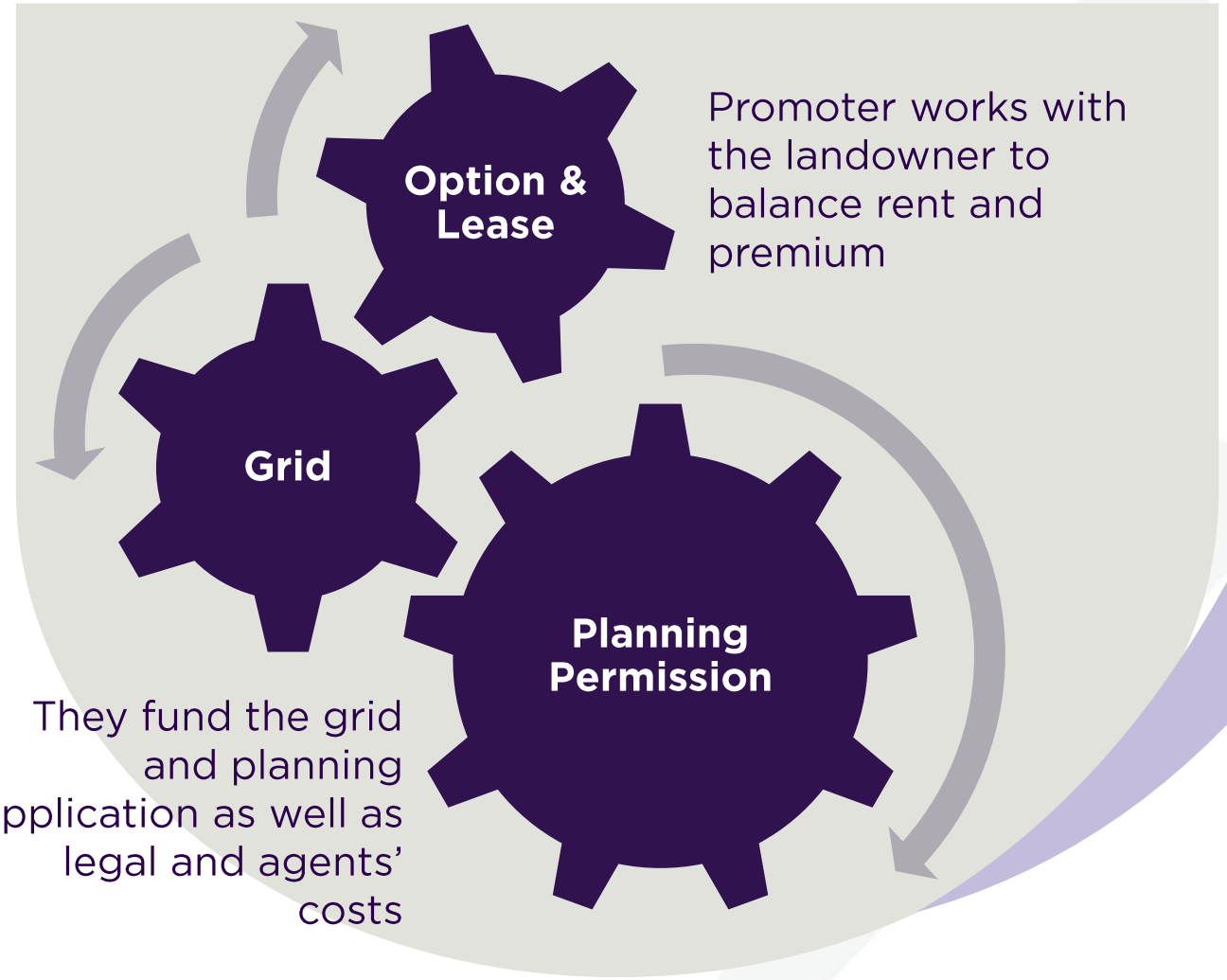
LANDOWNER'S RETURN

- Gross Value based on capitalised value of rent plus premium
- Deductible costs of £500,000-£600,000 creates the net value
- Landowner's Return is calculated as a percentage of the net value c.70%
- Typically c.£500,000, plus the capitalised value of lease income

Total Value Created		**£6,333,333**
Costs		
Feasibility		-£10,000
Enquiry		-£45,000
Decision		-£90,000
Planning Application		-£275,000
Marketing & Sale		-£90,000
Contingency	10%	-£51,000
Total Costs		**-£561,000**
Net Value		**£5,772,333**
Promoter's Return	**30%**	**£1,731,700**
Landowner Value		**£4,040,633**
Premium		£707,300
Investment Value		£3,333,333
Rent (per annum)		£200,000

N.B. Values provided for illustrative purposes only

What is the process?



Promoter works with the landowner to balance rent and premium

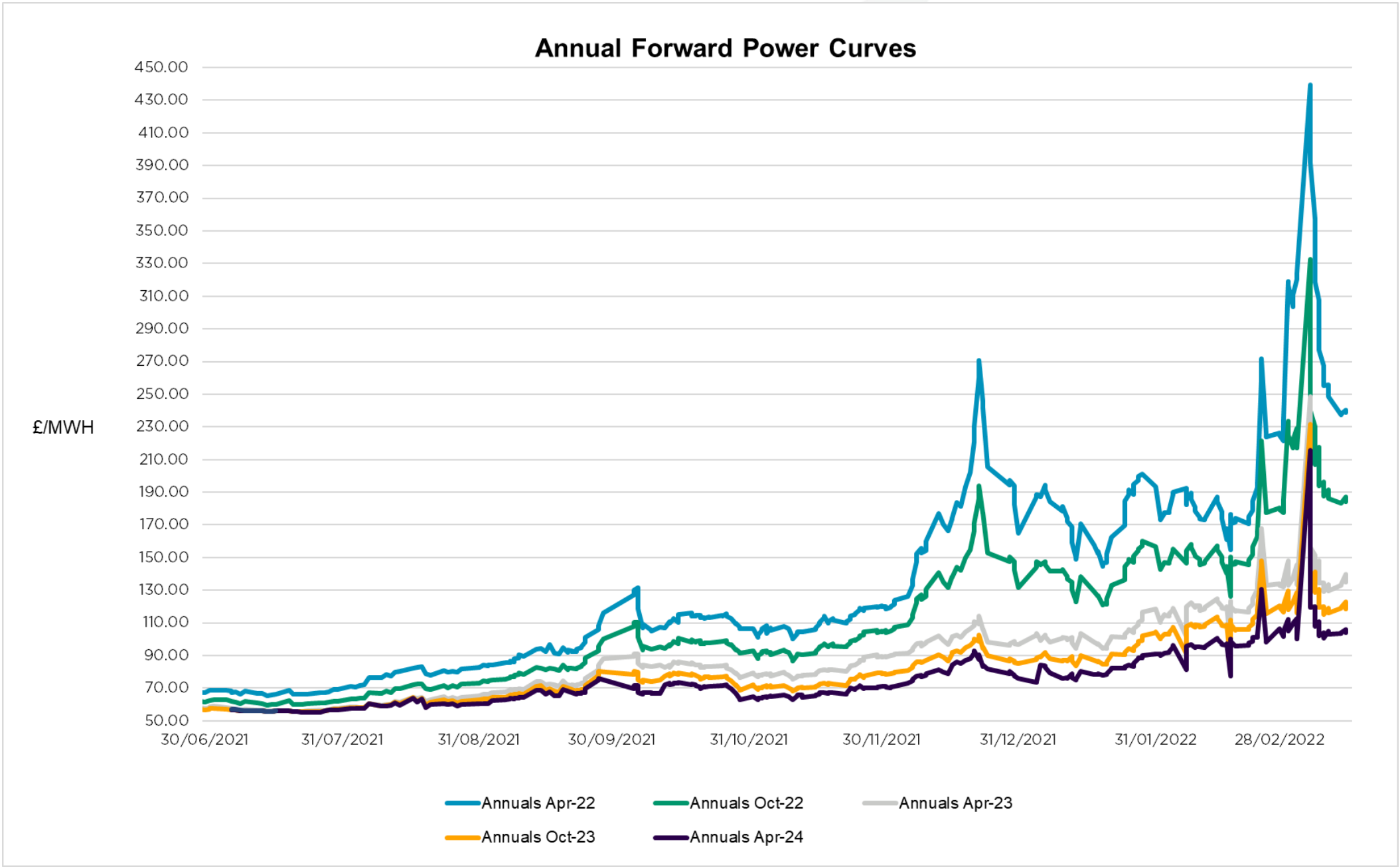
They fund the grid and planning application as well as legal and agents' costs

Project Rights are sold on the open market to maximise revenue

Freehold investment

Freehold investment is retained by the landowner in perpetuity

UK Energy Market – Historic Highs



Power Purchase Agreements

If you have existing generation such as solar PV, hydro, AD, wind; now is a great time to look at renewing your PPA

- Maximise income from your asset
- Recent PPAs as high as 25p/kWh. Compared to 4p/kWh in March 2020
- Tender exercise to ensure most competitive price being achieved

Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

Commercial Scale Solar PV

Power prices at record highs

Mitigate against rising costs

- Offset onsite usage with minimal export
- Half-hourly (HH) data from site can be analysed to determine optimum PV size
- 40-60% annual electricity bill savings
- Price of panels down significantly over last 5 years
- Paybacks of 6-8 years
- Panel lifetime of 30 years plus
- Roof rental options available via developers

Natural Resources WEBINAR SERIES Energy

Carter Jonas
Simply better property advice

Combining Technologies

If solar alone may not be creating the desired impact, then it is worth considering looking at a combination of heat and power saving technologies.

- Reduce reliance on the grid
- Reduce energy costs
- Futureproof your site
- Carbon reductions
- Show ‘going green’

Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice

Natural Resources
WEBINAR SERIES
Energy

Natural Resources
WEBINAR SERIES
Energy

Carter Jonas
Simply better property advice