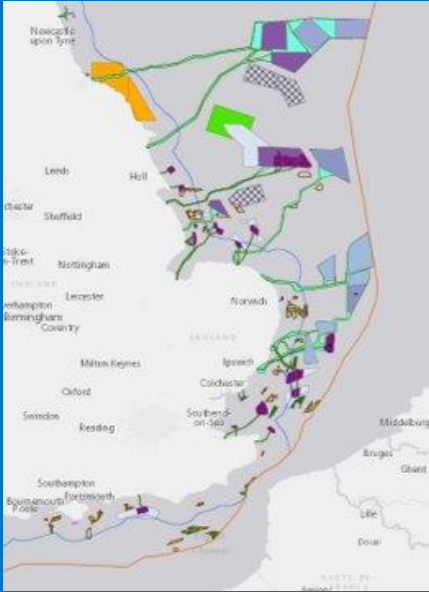


# NSIP Centre of Excellence



## Solar NSIPs

Funded by



Department for Levelling Up,  
Housing & Communities

Wednesday January 24th, 2024



JOINTLY OWNED BY



HM Treasury



Llywodraeth Cymru  
Welsh Government

# The exponential growth of solar farms

Jo Wall – Senior Strategy Director

[Jo.wall@localpartnerships.gov.uk](mailto:Jo.wall@localpartnerships.gov.uk)

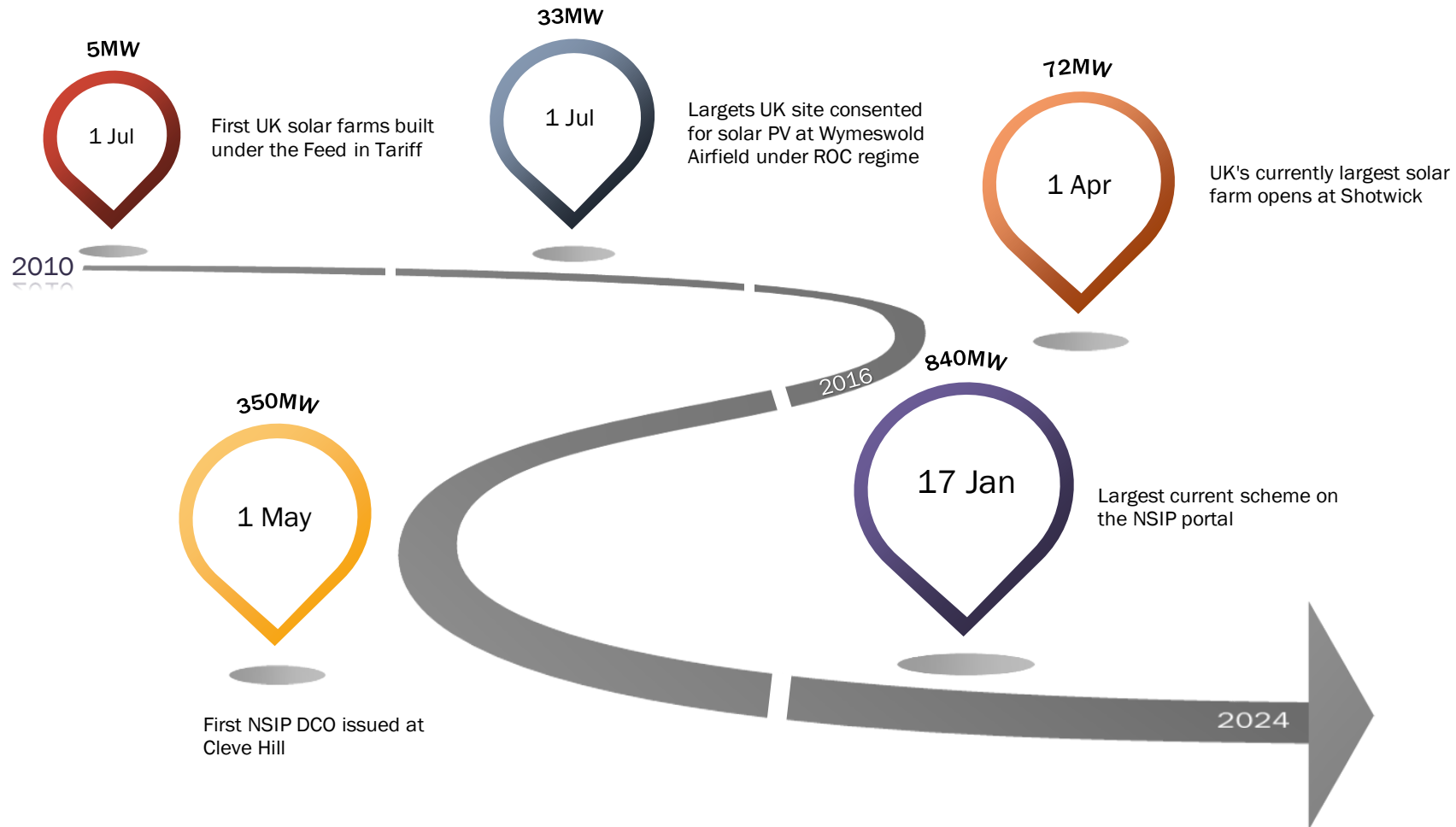
Mobile: 07985 476697

24 January 2024



# Rapid increase in scale

Largest scheme now is 168x the size of the initial schemes



# WHO WE ARE

## Local Partnerships delivers value and efficacy for the public purse.

As a **key interface between local and central government**, we provide expert advice and practical resources alongside project/programme delivery support, enabling public services to thrive.

As an **in-house consultancy jointly owned by the LGA, Treasury and Welsh Government**, we work solely for **central government departments, The Welsh Government, Councils and Combined Authorities**.

Whether supporting and **accelerating the delivery of major infrastructure**, tackling **climate challenges through waste efficiency and renewable energy** propositions through to **wider place-making initiatives**, we help transform services across the public sector ecosystem.



## Why the pressure and will it continue?

You won't get close to net zero 2050 without this type of development

- **14.65 GW** in the UK at end of **2023**
- Likely to see a five fold increase by **2035 to 70 GW**
- Grid connection becoming more difficult. Larger schemes cover fixed overheads
- Large grid connections being freed by closure of old coal fired power stations
- Where there is grid there **WILL** be development – if not solar PV then something else



## Development Essentials

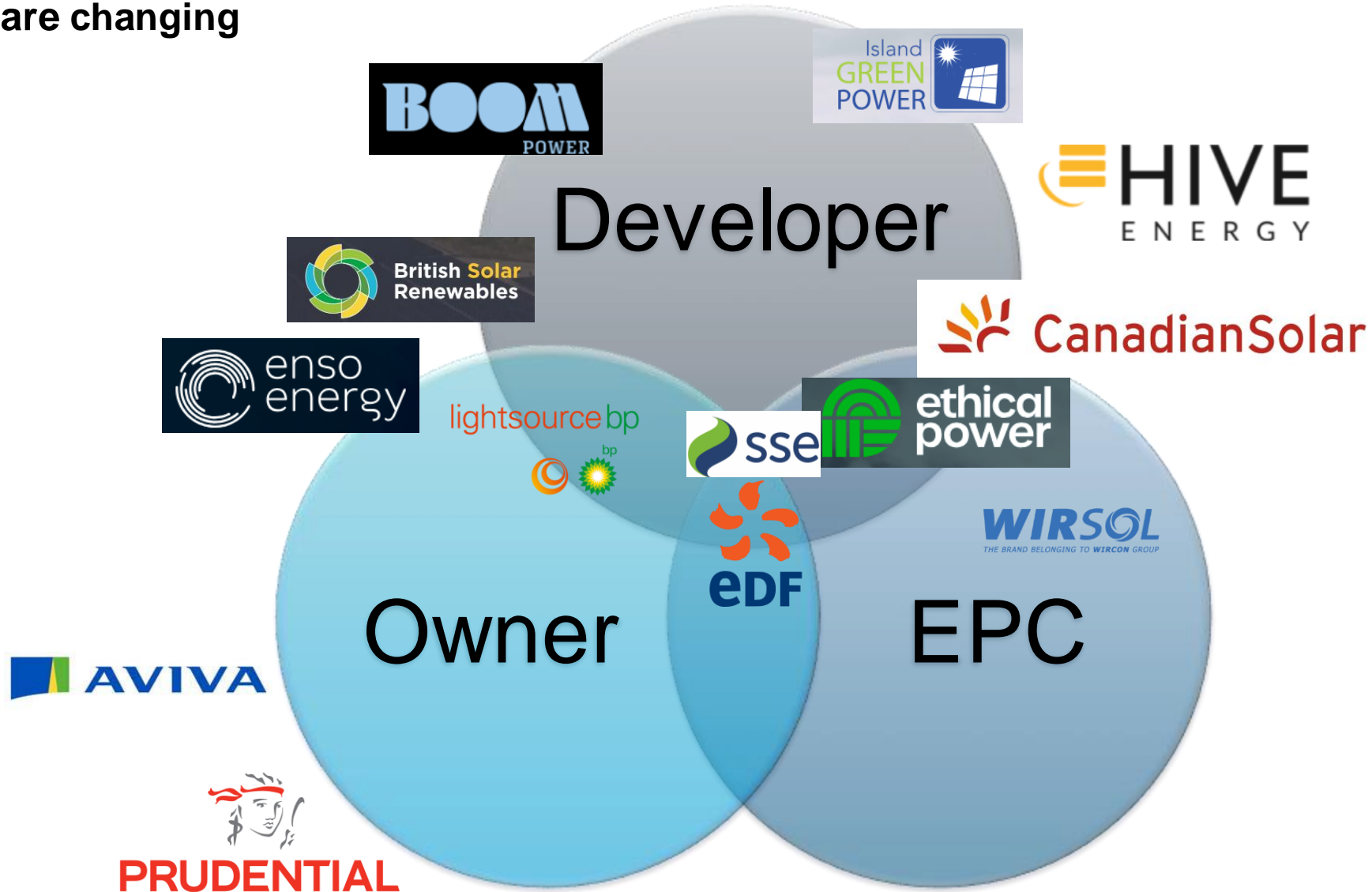
### Affordable grid, available land and planning

- Grid connections – distribution and transmission
- Export for solar PV and import/export for battery storage
- Land – usually a 40-year lease – but starting to see longer terms
- Larger schemes much more complex



# Industry Consolidation and Players

Things are changing





# What about the landowners?

## Leasehold (40 years)

Rents depend on irradiance and grid costs – but generally in the range £ 700 - £ 1,000 per acre in year 1.

Rents are index linked (upwards only) in line with CPI for the term

Typically needs around 4 acres/MW.

Total rents for Cleve Hill therefore not less than c£ 1m in year 1.



# Owners and Funders

Many are based outside the UK

- Cleve Hill (350 MW in Kent) will produce around £ 300m in pre- tax profits in its first 30 years of operation
- Profitability depends on grid costs, type of connection and irradiance
- Transmission connected systems are forecast to produce returns in excess of 9%IRR



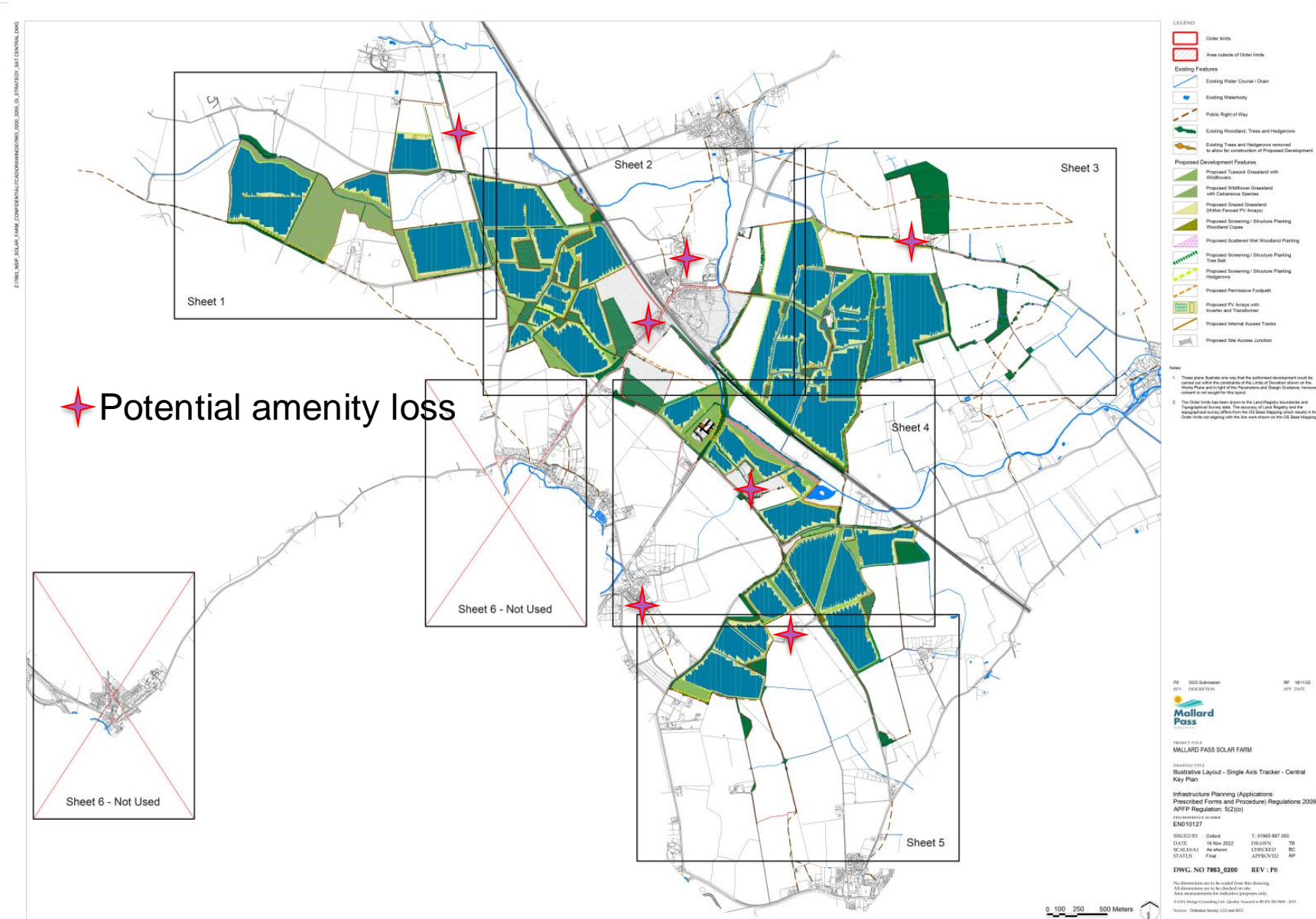
# Agricultural Land – best and most versatile

## The sequential test

- The circle represents potentially viable grid connection distances to the substation on a large solar farm – all the land is either grade 2 or grade 3
- Solar is more efficient than growing wheat or oil seed rape for biofuels by a factor of around 4
- Recent study suggests that sheep do better grazing on land with solar panels
- Sheep and BNG are not best friends



# Landscape and Visual Impact and Residential amenity



✦ Potential amenity loss

# Ecology and other considerations

These are likely to be local to one part of the site

Most can be worked around.

10% BNG is not enough



## Twin track approach

### Grounds for Objection

- Agricultural land
- Visual impact
- Residential amenity
- Red list ecology

### Planning for a different outcome

- Softening the impacts
- Maximising ecology
- Community fund
- Capturing benefits



# Solar, planning and community benefits

## It's not a great story

- Not a material planning consideration and current practice is very mixed.
- Onshore wind has well defined practice on community benefits offering **£ 5,000/MW per annum**



Dialogue between DESNZ and Solar Energy UK is ongoing





**Thank you**

[jo.wall@localpartnerships.gov.uk](mailto:jo.wall@localpartnerships.gov.uk)

07985 476697

# Achieving Good Design and flexibility in Solar NSIPs

Peta Donkin

EIA Director (Infrastructure and Energy)



**Design**

+ Principles

**DCO Regime**

+ Flexibility

**Outcomes**

+ Security

# But first.....Place

Design in response to place: to fit development into the community, environment and context where it occurs. It should be an improvement of that place, delivering positive outcomes and good change; environmentally, socially, economically.



# Design + Principles

## What is Design and when?

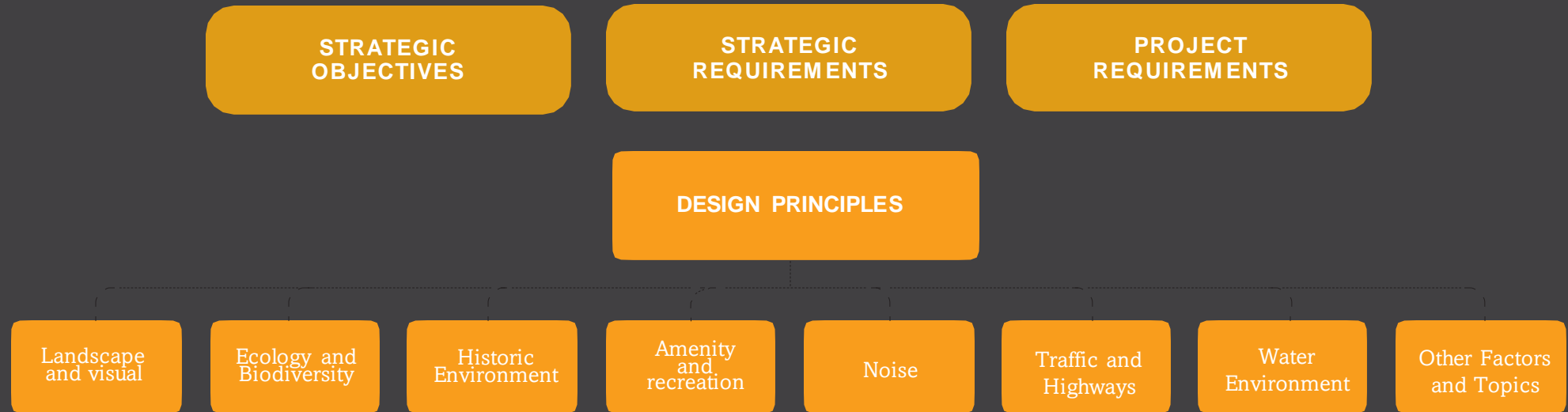
- Design outcome
- Design process
- In the setting of NSIP/ DCO: *'further down the line...'* - a set of maximum parameters in a red line + Works Plans
- In better cases: + Design Principles + levels of design commitment / detail (context driven) + Design Review (who says it's good?)

# Design + Principles

- Future: Design Approach Document:
  - **PINS Early Adopters Programme** – approach + response to consultation + response to environment + design governance/commitment (code or guidance)
  - **‘Designing for Good’** - Betterment not just mitigating impacts – Positive outcomes (EOR + new NPS’s)
  - **Empowered LPAs** – requirements and design compliance



# Applied Principles



# Principles + Governance

The use of Design Principles provides for the governance of design through the life of a project.

This gives confidence to communities, examining authorities, and decision makers.

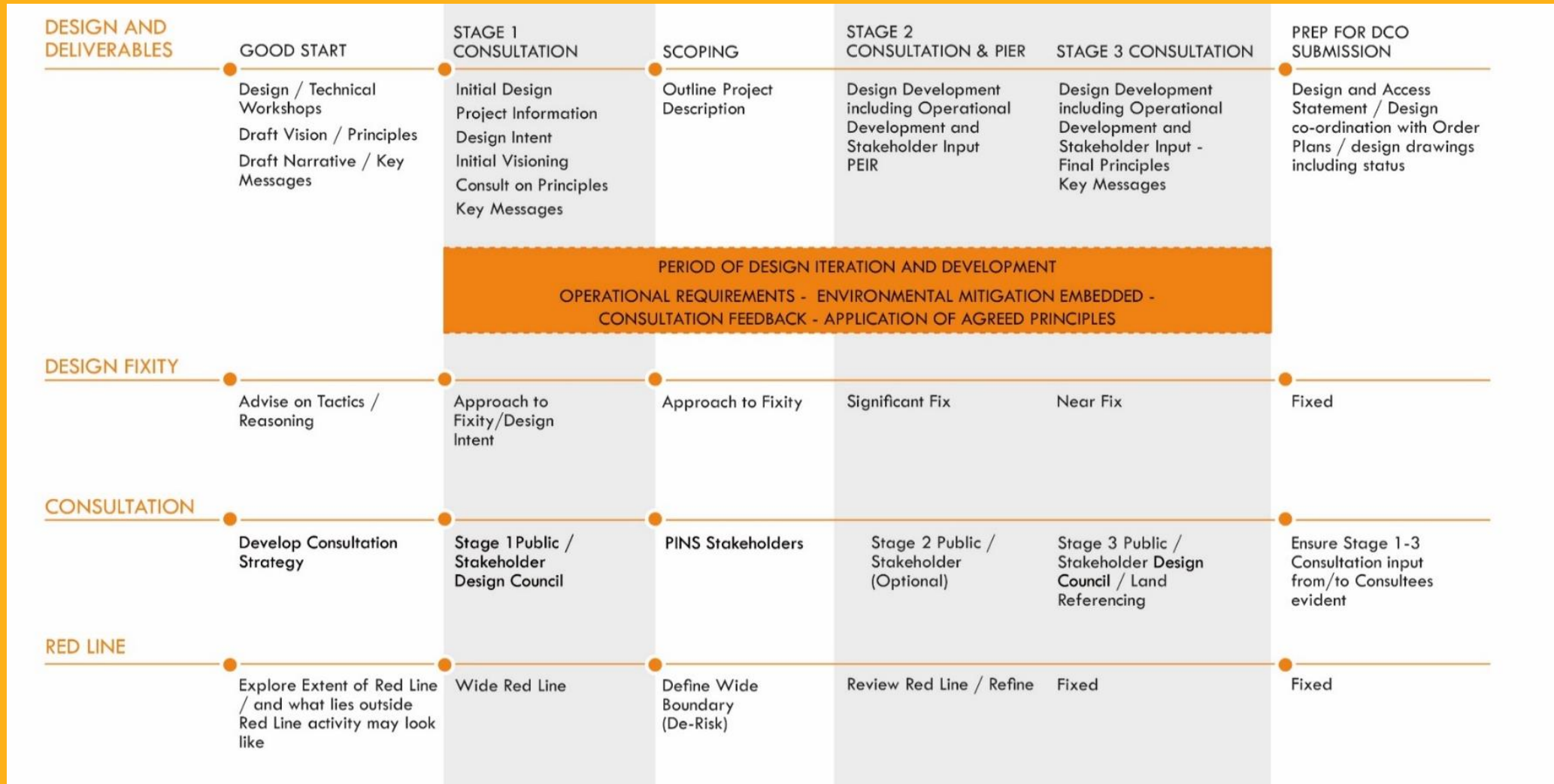
Applicants are able to seek approval on the basis that design principles will:

- provide the framework within which design is developed;
- and support the subsequent discharge of requirements for Development Consent Order projects.

# DCO Regime + Flexibility

- DCO regime – democratic, front loaded, forces in principle interdisciplinary thinking
- Rochdale Envelope – flexibility and assessment control
- Delivery control - use of design principles, requirements, obligations for discharge (LPAs), design governance
- Community impact + Securing social value
- Confidence in reporting on design - PINs training and Advice direction

# Design Process – DCO - an iterative process



# Design Process

Design process: the use of a structured design process:

- facilitates effective local consultation (a key part of the 'front loaded consultation' Development Consent Order process)
- provides a framework for early consideration of environmental issues;
- and drives project team collaboration.

LPA and stakeholder input through early engagement to help shape project development and facilitate a progressive Examination.



# Outcomes + Security

It's the project (design) that is applied for – the EIA process influences it, and other documents support and provide an explanation of it and underpin delivery, secured within the DCO:

- **ES - Environmental Statement – technical assessment, mitigation, enhancement**
- **DAS/DAD - Explanation of Design**
- **Management Plans – CEMP, OEMP, DEMP, LEMP etc as control measures for all phases of the project**
- **DCO – control within the Order, the Works Plans, and through the Design Principles**



# Outcomes + Security

- DCO Requirements secure what can be delivered
- Legal obligation to adhere to them
- Important to understand level of design fixity/ detail sufficient to inform judgement on the project and inform the EIA – too little /too much
- ES Project Parameters set “worst case” assessment within the Order limits
- LPA will determine eventual design based on DCO requirements, Design Principles and the content of the Order

# Act for the better good

*“Design requires rigour and process – good outcomes never come out of haphazard thinking.”*

Sadie Morgan NIC

*“The most precious asset we have been given needs to be properly understood and the communities of which we are a part, need to be given the respect they are rightly due in projects and plans we seek to promote. We need to de-silo our thinking and advise and act for the better good.”*

EIA as a design tool – IEMA Journal 2023  
(Guest Edited by LDA Design)

[https://s3.eu-west-2.amazonaws.com/iema.net/documents/146482\\_IEMA\\_Outlook-Journal\\_Vol16\\_V6.pdf](https://s3.eu-west-2.amazonaws.com/iema.net/documents/146482_IEMA_Outlook-Journal_Vol16_V6.pdf)

**IEMA** Transforming the world  
to sustainability

Impact Assessment Outlook Journal  
Volume 16: June 2023

## EIA as a Design Tool and Consideration of Alternatives

Thought pieces from UK Practice



Guest Editors

Alister Kratt, Director - Infrastructure, LDA Design

Peta Donkin, Director of EIA (Infrastructure), LDA Design

LDĀDESIGN

Designing for good





**North Kesteven**  
DISTRICT COUNCIL

Nick Feltham (Assistant Development Manager)

North Kesteven District Council

NSIP Centre of Excellence Solar Webinar

**Community Benefit Agreements, Planning  
Performance Agreements and Focus/Priorities for  
LPAs**



**North Kesteven**  
DISTRICT COUNCIL

### **NSIP Solar Projects in North Kesteven:**

- Heckington Fen (in Examination) – 400MW
- Springwell (in s.42 Statutory Consultation) – up to 800MW
- Beacon Fen (in s.42 Statutory Consultation) – 400MW
- Fosse Green (pre-application) – 350MW
  
- **Total** = 1.95GW/526,000 homes

### **Known Electricity Infrastructure in North Kesteven:**

- New National Grid substation (connecting Springwell and Fosse Green)
- Freestanding Battery Energy Storage Systems

### **NSIP Solar Projects in Lincolnshire/cross boundary:**

- 11 projects – Heckington Fen, Springwell, Beacon Fen, Fosse Green, One Earth, Temple Oaks, Tillbridge, Gate Burton, West Burton, Mallard Pass, Cottam



# Location of NKDC NSIPs



North Kesteven  
DISTRICT COUNCIL



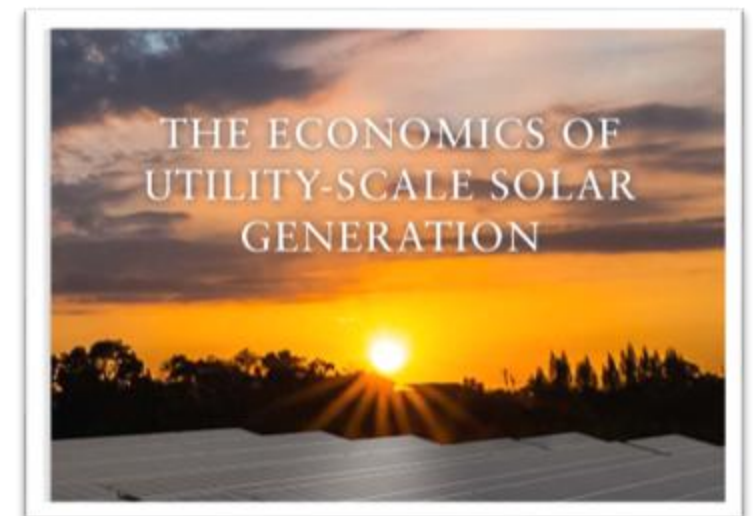
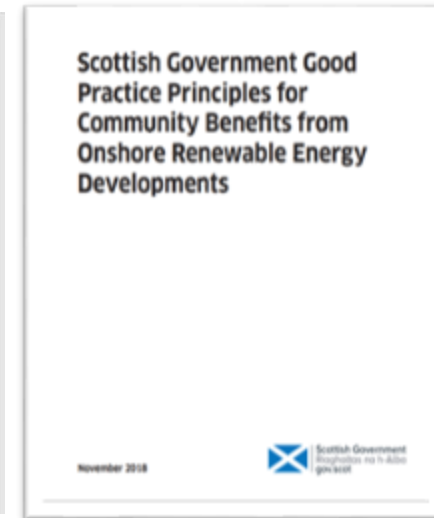
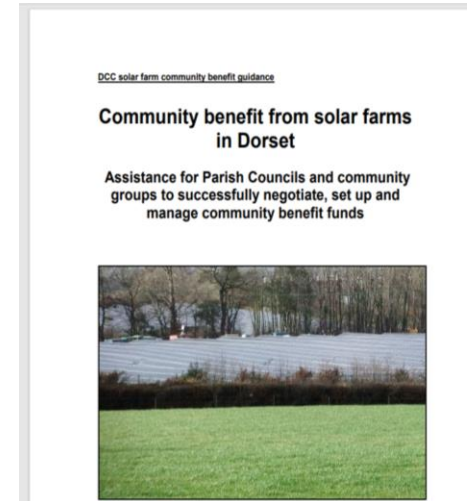




**North Kesteven**  
DISTRICT COUNCIL

## Community Benefit Agreements (CBA)

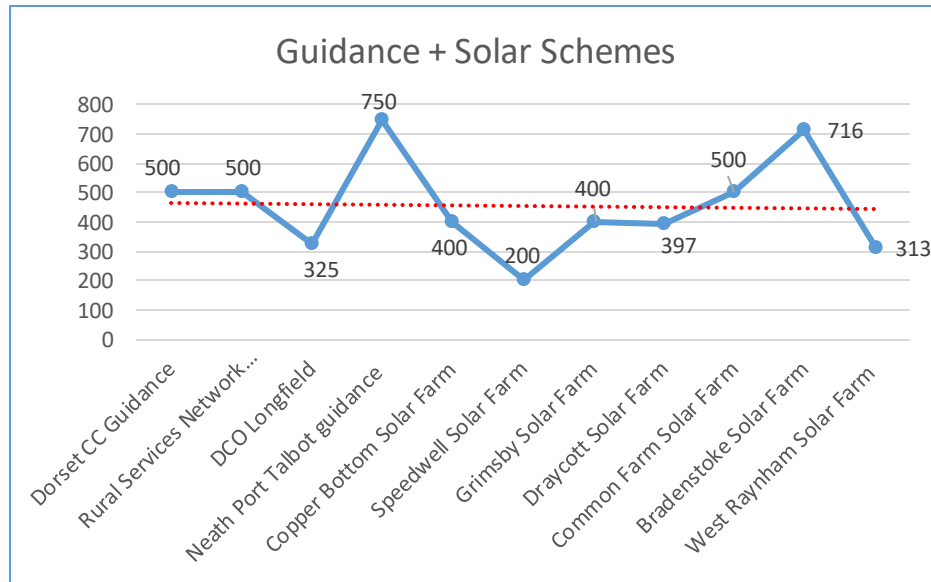
- Understanding the economics of solar generation
- PA 2008 vs TCPA 1990 – greater freedom to negotiate
- Materiality in decision taking by SofS - Requirement/s106 vs CBA (socio-economic impacts & enhancements)
- Limited precedent examples for solar projects (primarily wind energy) no industry standard formula
- Developing and adopting contributions schedule and policy and when to start negotiations?
- Good practice...but ultimately discretionary





## Community Benefit Agreements

- Gathering baseline and benchmarking (PA 2008 + TCPA 1990)
- Longfield DCO – Solar NSIP CBA (community initiatives and skills/education)  
400MW scheme - £130k annual community + £50k annual skills/education
- NKDC took 25 examples (MOUs, guidance, developer commitments) –  
tabulate/chart, exclude outliers, revert to equivalent £/MW/year for 40  
years, convert to mean



Appendix A – Examples of solar developments, community benefits agreements and guidance

Name	Capacity	Payment/Formula Applied	£ Per MW	Per MW/year equivalent over 40 year NSIP	Type – Guidance or application
<b>Applications</b>					
Dengie Solar Park (BSR Energy)	19MW	£1000/MW – single payment	£1000/MW	£25	Application
Twemlows Solar Farm	10MW	£91,000 (2015-2023) at £11,375 per annum	£1137/MW	Time period unclear	Application
Neath Port Talbot	Various	£30,000 per MW – single payment		£750 (based on 400MW NSIP scheme)	Application
Copper Bottom Solar	30MW	£400/MW/year for lifetime of permission	£400/MW	£400	Application
Speedwell Solar	40MW	£8,000/year for lifetime of permission	£200/MW	£200	Application
Common Farm	49.9MW	£50,000/year for 20 years	c.£1,000/MW	£500	Application
Grimsby Solar Farm	49.9MW	£20,000/year for 40 years	c.£400/MW	£400	Application
Draycott	5.03MW	£2,000/year for 40 years	c.£397/MW	£397	Application
<b>NSIPs</b>					
Longfield NSIP, Essex	400MW	£7.2m over 40 years (£2m for employment)	£450/MW (£325/MW allowing for employment)	£450	NSIP
<b>Guidance</b>					
Dorset CC Solar Guidance	-	£1000/MW/year for 20 years	£1000	£500	Guidance
Rural Service Network	-	£1000/MW/year for 20 years	£1000	£500	Guidance
Shropshire	-	£500/MW/year for 40 years	£500	£500	Guidance

## NKDC draft Solar Community Benefit Agreement Policy



- Policies for Development Typologies (PA2008 & TCPA 1990)
- Core requirement (policy 1) rate applied to large-scale (5MW+) solar energy projects will be **£500 per MW** per year for operational lifetime
- Policy 2 (BESS as component of solar scheme) – energy generated and stored above the export agreement with National Grid charged at **£250/MW/year** installed capacity
- Policy 3 (freestanding BESS scheme) - **£250/MW/year** installed capacity
- Policy 4 (new National Grid substations) - **£35,000** per year per substation (DESNEZ November 2023 'Transmission Acceleration Action Plan' suggests **£200,000 one-off** CBA payment per substation)
- Allowances for inflation
- Paid to accounting body in CBA no later than 30 April each year
- Rollover of unspent funds
- 'soft consultation' & policy approved by Executive Board

### Policy 1

A large-scale solar energy (defined as being a site exporting more than 5MW/year) site developer will confirm as part of their submission the total energy generation that will be exported to the grid through confirmation of the export agreement with National Grid.

All fractional energy generation figures will be rounded up to the above MW/year figure i.e. developments for 49.84MW/year will be charged as if 50MW is being generated.

The total amount of energy generation annually shall make annual payments to the Community Benefits Agreement at a rate of £500/MW for the operational lifetime of the development.

The developer shall confirm the date the energy generation to the grid is first commissioned.

The developer shall pay the contribution arising from the previous financial year to the accounting body nominated in the CBA no later than 30 April each year.

## NKDC draft Solar Community Benefit Agreement Policy

- Funds managed by Special Purpose Vehicle or CIC or existing organisation
- Potentially significant sums per project – 400MW scheme liable for £200,000 annually
- Project area – District wide but priority within ‘x’ km of site or wider (County?) for strategic projects
- Joint working/evidence base with Relevant Planning Authorities

### **Projects to include:**

- Support community renewable energy schemes
- Provide grant funding support for moving households off fossil fuels alongside other Government retrofit funds
- Assist SMEs with support for decarbonisation initiatives
- Provide support to relevant apprenticeships (nb DCO s106?)
- Support active travel schemes
- Assist to deliver local biodiversity initiatives;
- Projects and engagement with schools to embed net zero
- Opportunities for off-site renewable energy infrastructure offsetting (linked to the Central Lincolnshire Local Plan)
- Support sensitive energy efficiency measures in historic buildings.

## Planning Performance Agreements – Tips...and avoiding pitfalls

- Negotiate different PPA for pre-application, examination and Requirements discharge and start early – EIA Scoping or sooner – and backdate to include tasks already completed
- Ideally agree fixed hourly blended Officer rate including all on costs rather than varying rates per Officer; base fixed rate on % lead Officer/s involvement
- Ensure external consultant costs and legal costs included and bulletpoint list key tasks to be covered in the PPA including if applicable the job titles of Officers and external consultants to be engaged
- Allow for indexation
- **Do not carry over same hourly estimates from pre-app PPA into Examination PPA! Account for ES/DCO document review, drafting LIRs & WRs, Hearing attendance etc**
- Joint PPA helpful if cross-Authority area but ensure costs are scaled up
- Early liaison with Finance colleagues to set up cost recharge templates, accounting codes, Purchase Order references and external consultee invoicing processes
- Invoice applicant at key/manageable milestones e.g. for all work on PEIR – keep on top of time logs
- Overestimate (...and bear in mind how much the applicant will be spending on their own consultant and legal costs...)
- Be mindful of including costs for Council-specific tasks e.g. delegation of decision making, planning committee preparation etc



**North Kesteven**  
DISTRICT COUNCIL

DATED 23 October 2023

(1) NORTH KESTEVEN DISTRICT COUNCIL

AND

(2) BEACON FEN ENERGY PARK LIMITED

PLANNING PERFORMANCE AGREEMENT

relating to the proposed Beacon Fen  
Energy Park Development Consent Order



## Focus and Priorities for LPAs

- Consider and agree your **resourcing** early – consider joint procurement of consultant/legal resource with other Relevant Planning Authorities
- Diarise regular **update meetings** with developer
- Focus on limited number of **materially relevant matters** specific to the site (BMV land, LVIA etc), don't duplicate **statutory consultee involvement** (or, keep it to a minimum) and be mindful of the Critical National Priority for low carbon infrastructure and statutory presumption (EN-1 - 4.1.3) but focus on how Neighbourhood Plan initiatives and priorities can be secured
- Keep elected members, Media & Comms and Customer Service teams updated on key milestones – e.g. start of s.42 consultation – and **signpost to applicant**
- Negotiate/secure **PPA** early and keep under review
- Be **proportionate** in Local Impact Reports and Written Representations - focus on areas of likely objection or concern (mindful of EN-1 statutory presumption)
- Discuss and agree wording of **Requirements**, DCO Schedules etc with other Relevant Planning Authorities and present a joint position (more weight) but be mindful of precedent (can work both ways....) resist deemed discharge (or push for longer timeframe), keep Requirements to minimum necessary (CEMPs, LEMPs, OEMPs can deal with a lot of detail) and resist Fee Reg. 16 'condition discharge' rate – aim for 10 to 20 times rate.
- During **Examination phase** answer Examining Authority printed questions in full but be concise if possible – your replies might generate additional questions at next deadline and more workload...
- Enter the process with **realism** in terms of the national policy position and focus on securing net gains, community benefits and socio-economic betterment, better layouts/designs.



North Kesteven  
DISTRICT COUNCIL



- Brings together local authority officers to share information, experience and practical support
- Provides a direct link for national government and local authorities
- Produces resources and materials to help spread best practice

To join contact

[garreth.bruff@local.gov.uk](mailto:garreth.bruff@local.gov.uk)

[sarah.lewis2@local.gov.uk](mailto:sarah.lewis2@local.gov.uk)

*“PAS exists to support local planning authorities in providing effective and efficient planning services and to support the implementation of changes in the planning system”*

[www.local.gov.uk/pas](http://www.local.gov.uk/pas)