

# ***Preparing a Flexibility Toolkit***

**Project B**

# **Mechanisms to support flexibility: Requirements and codes**

**Professor Janice Morphet and Dr Ben Clifford**

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# 1. Introduction

When the 2008 Planning Act was introduced, it was intended to create a system that guaranteed decision making about national infrastructure projects within a specified time and a process where consent for the project is granted through a Statutory Instrument, usually with some form of detailed design then following consent. The approach to flexibility and light touch on detail was enshrined in the philosophy of the Act, given that previous experience of obtaining planning consent for major infrastructure projects had frequently been lengthy. This meant that there was a focus on obtaining the Development Consent Order (DCO) for the project, leaving the flexibility required for later delivery to follow at a later stage.

Since 2008, the definition of NSIPs and the requirement to assess their environmental consequences have allowed for some flexibility in the delineation of their site boundary, using the Rochdale Envelope. However, in practice, some more detailed aspects of a project have been required to be included within the DCO. This included the requirements over use of land and associated Compulsory Acquisition powers. As NSIPs moved from consent to construction, the assumed flexibility in the system was found to be limited in some cases, requiring changes to the DCO. This has been for a variety of reasons that could not be incorporated within the mechanisms included within the DCO itself.

To investigate this issue, the National Infrastructure Planning Association (NIPA) commissioned research into the practices and issues that have evolved to achieve this flexibility over the period of the operation of the Planning Act 2008 under the banner of 'NIPA Insights'. The research considered the balance between flexibility within the intention of the Act and the level of detail required to meet wider environmental, land and statutory consultee requirements in the delivery of any specific project. The first stage of this research, *NIPA Insights I*, was undertaken by Professor Janice Morphet and Dr Ben Clifford of the Bartlett School of Planning UCL and published in 2017.

The research found that while flexibility was assumed as being a feature of the NSIP consent system, including by Central Government Departments, it was not well-embedded within the Development Consent Order (DCO) process as a mechanism for NSIP delivery. This was compounded by promoters, seeking to manage their own investment risks, incentivising the achievement of a DCO without incorporating the necessary considerations of the subsequent construction of the NSIP. Subsequently, when appointing constructors, many promoters found that the flexibility that was assumed to be in the system had been bounded by other agreements made within the Examination process or within the DCO and that changes requested could not then be met without the need for specific changes in the DCO or additional consents. Amongst the recommendations in the research report was one to engage constructors at an earlier point in the DCO process where possible, to consider the deliverability of the NSIP from the outset, and to appoint a project management capability over the life of the whole project, from pre-acceptance to operation.

As a response to these findings and recommendations, NIPA has initiated a further research programme: *NIPA Insights II*. This programme is to inform and develop a flexibility toolkit for its members. It has involved a range of research projects led by different groups of NIPA members within a coordinated framework led by a NIPA insights Steering Group. This work has focused on the following key areas and their contribution to supporting flexibility to the delivery of NSIPs:

- Engagement
- Assessment and application documents
- Requirements and codes
- Possession and land acquisition
- Model provisions

As part of this research programme for the toolkit, NIPA commissioned Janice Morphet and Ben Clifford to undertake two further pieces of work. The first, labelled *Project A*, focussed on engagement and as part of this considered how flexibility is proposed and explained in the pre-application process, together with the identification of any commitments to further consultation after the granting of the consent. The second part, *Project B*, has focussed more on how flexibility is governed post-consent, with a particular consideration of the role of requirements and codes within them such as the Code of Construction Practice (CoCP) or Construction Environmental Management Plan (CEMP). This report summarises our findings in relation to Project B.

## 2. Scope for flexibility in NSIPs

In reviewing the tools of flexibility that might be considered in the toolkit, we have found that a range of tools, discussed below, have been used within different NSIPs, some on their own and others in combination. Each NSIP is different in its functions, geography, environmental impacts and desired outcomes so this variation in the use of the tools of flexibility is not surprising. However, it appears that each NSIP will need a version of many of these means of achieving flexibility for construction and subsequent operation. The tools of flexibility listed here are not exhaustive but represent those that we found during this research.

They can provide a good checklist for promoters in practice but may also prompt some consideration of why these tools have been used and what flexibilities have been sought in their application. However, in any NSIP, the flexibilities required for successful construction and operation will differ. Both this research and the e *NIPA Insights I* research have found that early consideration of the flexibilities required for construction and operation will assist in delivery of the project. Again, it is important to emphasise that the DCO is a major and necessary gateway milestone in the delivery of any NSIP and has important implications for project completion. The DCO is not, however, an end in itself.

Some of the tools that are being used to achieve flexibility in the delivery of NSIPs are as follows (examples were also listed in our *Insights I* report):

- **Pre-acceptance consultation** – capturing commitments as part of the delivery considerations
- **Landowner/PIL negotiation** at early stages can support route/site flexibility
- Ensuring that **agreements made during Examination** are assessed as part of the project's delivery before their final agreement
- **DCO – construction and drafting** – there are possibilities within drafting to allow a more hybrid approach between detail and flexibility for delivery
- **Non-material amendments** – generally least preferred method due to perceptions of risk given the lack of a statutory timeframe for their determination and only used if no other option
- **Requirements** allowing agreement of issues post-consent
- **Codes** including CoCP and CEMP allowing confidence for management of construction effects post-consent
- **Section 106 agreements** to manage commitments which might otherwise be put into the DCO itself
- **Planning Permission** under the TCPA for associated development – being used with increased frequency
- EEC **Environmental Effects Compliance**
- **Tailpieces** to allow variation of the DCO requirements by agreement e.g. with a local planning authority – generally not allowed by PINS but have

been included in some DCOs and strong support for their reinstatement in some allied form (e.g. if do not lead to any material changes)

- **Design and access statements** – a mechanism but not frequently mentioned
- **Community liaison groups**, particularly as a means to promote confidence in the management of issues post-consent
- **Local authorities** – see below

While most of these will be familiar and in use, it is clear from our research that many NSIPs are using these methods to achieve flexibility selectively. Frequently where there are difficulties, promoters and their advisers are turning to local authorities for assistance rather than be reliant on non-material amendments to achieve change in DCOs, for example through TCPA consents for associated development. While there has been some reluctance in working with local authorities reported in the *NIPA Insights I* research, once NSIPs move on to construction and delivery, this view has frequently changed. Those involved in delivery have reported a positive relationship with local authorities even where they have been against the development in the past. The assistance provided by local authorities, often keen to see the development completed and any associated jobs or economic activity implemented, is in a variety of ways including the use of additional planning applications, the role and use of s106 agreements and the interpretation of standards in the DCO, requirements and codes (and screening of compliance / significance of variations) which may not be clear in their drafting.

This greater reliance on local authorities is now being accompanied by earlier engagement with local authorities on delivery issues. This may include discussions on requirements and codes and in some cases local authorities stating their own standards for inclusion in these documents or frameworks. The role and use of s106 in achieving flexibility in delivery has frequently been mentioned throughout this research. Some have argued that there is an unwelcome tendency for the NSIP regime to move closer to that of the TCPA, not least through Examining Authority experience and the increasing submission of planning statements, that are used in TCPA but not required for NSIPs. While local authorities may not be as familiar with NSIP processes, they are willing and able to use TCPA approaches to overcome delivery issues where these have arisen including for changes in sites outside the DCO parameters for access or commercial reasons.

## **Other issues**

While the approach to achieving flexibility through the toolkit offers a way forward, many members of NIPA have also identified other issues that will need to be incorporated into the NSIP approach to delivery in due course. The first is that stakeholders will need to have more information at the beginning of the application process to be able to envisage the scheme through to its delivery. This may be a growing practice supported by the NIPA Insights Toolkit but also needs more appreciation of delivery from those parties involved at these early pre-acceptance stages.

Secondly, the NSIP process needs flexibility to be able to accommodate technological change and its contribution to economic growth. At present the technology elements of most NSIPs has not been an issue although it has

emerged as critical in some projects. However, technology is also important for construction methods and management of this process and securing the means to be able to use the best approach possible is a significant challenge. This technological potential also contributes to economic growth with such methods being available more widely in other areas of construction management both in the UK and more widely. Construction methods and the operation of the final project are now required to comply with increasing BIM standards for the management of the proposed facility during its operational lifetime.

There continues to be widespread concern about the time, cost and uncertainty associated with both the non-material and material amendment process for changes to be made to consented DCO. A statutory timescale for non-material amendments, or allowance for local authorities to be involved in agreeing non-material changes, would seem to reduce perceptions of risk by promoters and contractors and may allow more beneficial flexibility to reduce scheme impact in many cases.

In terms of the mechanics of NSIPs, it is likely that PINS will move to more electronic based processes with less need for paper copies and may be willing to offer more advice about getting projects into acceptance. It is also emerging that projects that have a greater involvement of constructors at their pre-acceptance stages are passing through this part of the process more rapidly.

There is also an increased tendency for the preparation and submission of planning statements by promoters although there are no requirements to do this within the processes. It may be that promoters and their advisers consider that a planning statement provides a better opportunity to contextualise the proposals within its location and offers an opportunity for local authorities and communities to engage with the proposals in ways with which they are more familiar. As this report has demonstrated, there is certainly more integration between the TCPA and NSIP regimes emerging and a greater role for local authorities at all stages in the process rather than at the outset as perhaps envisaged by many at the inception of the Planning Act 2008. There are some concerns about the potential blurring of these two separate approaches in the NIPA community and time will tell if this is a continuing trend.

# 3. Requirements

The use of requirements is, in general, a key enabler of flexibility in the DCO process. While requirements can sometimes restrict flexibility (for example, specifying hours of work in construction), they are often used in ways that support it. This might be by allowing leeway over how or even precisely where the construction occurs, or through specifying processes for issues to be determined post-consent.

Requirements are discharged by specified external bodies. The most common discharging authority is the relevant local authority, but it might also include the relevant Secretary of State, various statutory consultees and occasionally other bodies. By involving these stakeholders in the process of discharging requirements, there is a process specified for them to check detailed matters post-consent and confirm their acceptability. This means that these detailed matters do not need to be fully determined pre-application, discussed in great detail at Examination, or even specified in the main body of the DCO. Used effectively, the requirements section of a DCO is therefore absolutely key to flexibility in the process.

## *Number of requirements*

We looked at the requirements sections of the 65 DCOs consented when we started this project (the 66<sup>th</sup>, Silvertown Tunnel, was consented after we had undertaken this exercise). There was wide variety in the number of requirements per DCO. The least was Stafford Chord, with 8, and the most was Thames Tideway, with 372 (these are not all numbered, but this was our count of the project wide and each work site requirements together). The mean average number of requirements for a consented DCO is 35.

The Thames Tideway and Hinckley Point (232 requirements) DCOs are key outliers, with many more than any other DCO (the next highest number is North Killingholme, with 51). They also have their requirements sections constructed differently to others: the norm is one single numbered list but both Thames Tideway and Hinckley Point have the requirements sections split between project wide requirements and then requirements for a number of specified different work sites each, with numbering separate between each worksite.

Looking at the number of requirements in total, there is no temporal trend: there has not been an increase in the number of requirements over time. The main driver of variance simply seems to be the nature of the scheme. Looking across sectors, energy schemes have more requirements on average than transport DCOs but are often more complex schemes. Table 1 in the appendices summarises our findings in terms of the number of requirements for each consented DCO.

## *Types of requirements*

We then looked at what type of thing typically goes into the requirements section of a DCO. Given the sheer number of requirements across 65 consented DCOs, this analysis involved looking at the bold 'titles' for requirements: most requirements have a title describing them, but it should be noted some occasionally do not have such a title (hence, the number below for 'community liaison' is based just on those with requirements titled as such, whereas our analysis in *Project A* looked more broadly and found a higher number).

Table 2 in the appendices gives the findings of our analysis. The most common requirement was related to time limits for the order, which perhaps restricts rather than enables flexibility (but understandably so). After that, however, the most common requirements are all about the type and way that things will be managed post-consent (and in particular during the construction rather than operation phase) such as archaeology (for example that a written scheme of archaeological investigation, duly approved by the relevant local archaeological service, will be produced), landscaping (allowing this to be agreed with the local authority post-consent), drainage (allowing this to be agreed with the Environment Agency post-consent) and so on. These are all directly supporting flexibility by allowing these issues to be managed through an agreed process post-consent.

#### *Commitments to post-consent community engagement*

We looked at the requirements of all 66 consented DCOs in relation to any obvious commitments to further consultation with communities. All schedules of requirements include provisions for the engagement of stakeholders directly named as being consulted in, or responsible for, the discharge of requirements. Named provisions, specifically to further consult communities, in the sense of seeking their views so as to further shape the project on things like detailed design and scheme implementation, are much less common in DCO requirements. We could only find an explicit commitment to this in the wording of the requirements directly of three of the 66 DCOs consented: the A14 Improvement Project, the M20 Junction 10a Project and the Silvertown Tunnel.

Although requirements specifying consultation to explicitly shape the detailed design were rare, it was more common to have requirements ensuring some sort of community liaison (usually to ensure the flow of information about project construction or operation or complaints). These commitments could be found as standalone requirements in the case of ten DCOs out of 66. For example, the Knottingley Power Project includes a requirement about a local liaison committee (requirement 35) as does Whitemoss landfill (also requirement 35), and the Ferrybridge multifuel project (requirement 47). A commitment is also made in the DCO of the East Northants Resource Facility, via a requirement securing that the development is carried out in accordance with Section 10 of the Environment Statement which itself makes commitments to community consultation.

We also found 15 out of 65 projects has an explicit statement that the CoCP or the CEMP must include some sort of community liaison or communications. Examples here are the East Anglia One project, where the CoCP under requirement 20 must include 'a project community and public relations procedure' and Progress Power, where the CEMP under requirement 11 must include 'complaints procedures' and 'provision for setting up a Community Liaison Group'.

#### *Particular examples of flexibility*

The requirements section themselves are where certain desired and direct mechanisms to achieve flexibility are often placed within a DCO. An obvious example here is 'limits of deviation' (as discussed in our *NIPA Insights I* report). Twelve projects had a requirements schedule containing the term 'limits of deviation': Hinckley Point, King's Lynn line, A556 upgrade, A30 Temple to Carblake, Norwich Northern Distributor Road, Hirwaun power station, A19/A1038 Coast Road, North Wales Wind Farms Connection, Meaford Energy Centre, Brechfa Forest Connection, North London Heat and Power Project, and Wrexham Energy Centre.

This term might be expected to be used in roads and power line schemes as traditional linear projects where limits of deviation are a longstanding concept within consent and construction. It was therefore notable that they were also used for some power station projects. For the Meaford Energy Centre and Hirwaun, limits of deviation are used in relation to the works plans and the access rights of way plan (requirement 3) whilst at the North London Heat and Power project it's for the construction piling, which has horizontal and vertical limits of deviation required in the piling method statement (requirement 4).

A sometimes related example is 'design parameters', a term which was used in the requirements sections of 14 consented DCOs: Kentish Flats windfarm, Galloper windfarm, Triton Knoll windfarm, East Anglia ONE windfarm, Rampion windfarm second attempt, Burbo Bank windfarm, Walney windfarm, Hornsea windfarm project one, Dogger windfarm Creyke Beck, Dogger windfarm Teesside A&B, Hornsea Offshore Wind Farm (Zone 4) - Project Two, Triton Knoll Electrical System, North London Heat and Power Project and East Anglia THREE Offshore Wind Farm.

This is common for offshore windfarms. It can relate to the design parameters for the design of the turbines themselves, as with Galloper windfarm. It can also relate to the location of the wind turbines, for example the Kentish Flats Extension where requirement 4 states: "Detailed design parameters: The wind turbine generators forming part of the authorised development shall be located within the Order limits and within 160 metres of the grid co-ordinates listed below", which is followed by a table of coordinates.

The North London Heat and Power project is an onshore example of the use of such design parameters, with requirement 5 stating that "The authorised development must be constructed within the following parameters" and then giving size parameters for such things as the tipping hall, waste bunker, control room and stacks containing flues for the gas flue.

Having a detailed design process specified through the requirements section is also another clear example of potential and considered flexibility post-consent. The term 'detailed design' appears in the requirements sections of 45 different DCOs, so many that a list here would be rather long. Such requirements sections can be quite precisely worded, for example requirement 11 of the A19/A1058 coast road project. Alternatively, the requirement may contain greater detail as to what the detailed design process is in relation to, as with requirement 4 of the Ferrybridge multifuel project. Finally, the detailed design requirement can itself provide scope for flexibility in the design specified quite explicitly, as with the mention of 'thresholds' in requirement 3 of the Knottingley Power project DCO.

Beyond these common examples, a host of other provisions in the requirements sections of different consented DCOs are explicitly designed to enable flexibility, often more specific to the needs of a particular project. A more bespoke example would be the 'Adaptive Environmental Management Plan' proposed for the Swansea Bay Tidal Lagoon. Although environmental management plans themselves are not unusual, having an adaptive one is less common in a requirements section. The adaptive plan is a "document to be updated and refined to give the best possible understanding of the Project's environmental effects such that mitigation can be adjusted"<sup>1</sup> and is useful here because of uncertainty surrounding baseline coastal morphology and sediment transportation issues in the complex location of Swansea Bay. Such an adaptive approach to environmental monitoring and mitigation is a long term approach which requires some commitment to ongoing resourcing, however allows much greater flexibility for measures to be agreed post-consent.

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<sup>1</sup> [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010049/EN010049-003137-Tidal%20Lagoon%20\(Swansea%20Bay\)%20%20Recommendation%20Report.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010049/EN010049-003137-Tidal%20Lagoon%20(Swansea%20Bay)%20%20Recommendation%20Report.pdf) (page 58)

# 4. Codes and Section 106 agreements

## Codes

Within the requirements section, there are frequent references to similar documentation to be produced as part of the process of fulfilling those requirements, with sign-off by another body (usually the local authority) as part of their discharge of requirements. Documents like a landscaping plan, written scheme of archaeological investigation or Ecological Management Plan are frequently specified in requirements, with set expectations as to their format and content. They are thus somewhat codified. The two most important codified documents often found in a DCO requirements section are the Code of Construction Practice (CoCP) and a Construction Environmental Management Plan (CEMP).

A CoCP sets out the standards and procedures to which developers and contractors must adhere when undertaking construction of major projects, which will then help monitor and manage processes, manage environmental impacts, and identify main responsibilities. A CEMP outlines how a construction project will avoid, minimise or mitigate effects of the environment and locality. It often details the implementation measures in accordance with the Environmental Statement and other regulatory requirements. They are live documents, reviewed and updated through the project.

### *Code of Construction Practice*

A CoCP is specified in the requirements for 22 projects out of 65 consented DCOs. These include all types of projects but there is a slight tendency towards energy projects having one. For some projects there are no elements specified, i.e. the requirement just says that the project will have a CoCP but does not say exactly what this will include. Falling into this category are Rookery South, Kentish Flats, Hinckley Point C, Galloper, Port Blyth, M1 Junction 10a, Able Marine energy, Walney wind farm. Preesall gas storage, the A14 Cambridge to Huntingdon and the North London Heat and Power project.

For the other projects, the requirements section specifies not just that there will be a CoCP but that it will include certain elements, although the precise elements to be included vary between projects. Falling into this category are East Anglia One, Hornsea windfarm, Dogger windfarm Creyke, Dogger windfarm Teeside, Hornsea two, Triton Knoll connection, Glyn Rhonwy and East Anglia Three.

### *Construction Environmental Management Plan*

A CEMP is specified in the requirements sections of 36 out of the 65 consented DCOs examined. These include all types of projects, but there is a slight tendency towards transport projects having one. For seven of these, there are no elements specified (i.e. the requirement just states that the project will have a

CEMP but does not say exactly which this will include): North London Line, North Killingholme, Dogger Bank Creyke, Norwich Northern Distributor road (albeit it does say CEMP must comply with draft submitted with the Environmental Statement), Dogger windfarm Teeside, M4 Junctions 3 to 12 and Wrexham energy centre. For all the rest, the relevant requirement in the DCO schedules specifies not just that there will be a CEMP, but that will include certain elements. Again, these elements vary between projects.

#### *CoCP and CEMP*

In total, 53 out of 65 DCOs had either a CoCP or a CEMP specified in their requirements sections. A temporal analysis revealed no particular trends in relation to use of either of these codes and date of acceptance or consent of a DCO. There were seven projects that had both a CoCP and a CEMP specified in the requirements sections. For four of these, they were specified in separate requirements within the schedule of requirements: Port Blyth Biomass, the M1 Junction 10a, Dogger Windfarm Creyke and Dogger Windfarm Teeside.

If we look at what is included in CEMPs and CoCPs where they have specified elements set out in the requirements, there is some overlap in what can be included in each, and there are also examples of the same elements being specified separately in the requirements sections of other DCOs. Table 3 in the appendices illustrates this.

There is clearly some difference in approaches to the CoCP and CEMPs between projects. Although in some cases they have clearly been considered different things, in most cases, a choice seems to have been made to have a CoCP or a CEMP rather than both. This may reflect the previous experience, sector, and preferences of promoters and their legal advisors as to how to manage and mitigate construction impacts. Similarly, there is variation in specifying or not the components of the CoCP or CEMP which seems to reflect disagreement between legal advisors as to whether this is an additional burden or 'good optics' and preferences of examining authorities. There is also great variation as to which components go into a CoCP or a CEMP.

One of the key benefits of the DCO is that promoters can tailor their own consent. The NSIP regime includes a wide variety of projects, so perhaps such variation is to be expected. Nevertheless, the CoCP and CEMP are essential tools to supporting project flexibility and delivery by providing assurances to stakeholders, in particular local authorities and environmental statutory consultees, and local communities that there will be adequate management of construction processes and impacts without having to have all details of this fixed at the time of consent but rather being dealt with post-consent. Understanding of the purpose of these codes and ability to provide safeguards may be promoted by slightly more consistency in which is used, what they contain, and how they are used. This might be an area for further discussion in preparation of any toolkit.

A related issue is the availability of these documents. The PINS National Infrastructure webpages for each project are basically only updated until the time of its consent (unless there are material or non-material amendments made to the DCO post-consent). They do not provide a repository of documents and plans being approved by those bodies discharging requirements post-consent. Some promoters have reasonable project websites but many do not, and our research for this project found that it was often very hard to find copies of CoCPs

and CEMPs approved post-consent on either promoter or local authority websites. This does little to promote public understanding in the management and mitigation of construction impacts post-consent, and so willingness to support greater flexibility around this.

The most recently consented DCO, Silvertown Tunnel, does, however, make a specific commitment to this in the requirement section, with requirement 5 specifying the need for, and contents of, a CoCP for the project to be made available in electronic form for inspection by members of the public.

### *Design codes*

As discussed in the previous section, the requirements section is often used to provide a framework to manage agreement over detailed design elements so that these might be dealt with post-consent, and thus aid project flexibility and deliverability. We found the term 'detailed design' used in the requirements of 45 out of 65 consented DCOs and the term 'design parameters' used in 14 out of 65. The term 'design code' was, however, only found once in a DCO or Examining Authority Recommendation Report, and this was in relation to the North London Heat and Power project. In this DCO, three different numbered sections of the main DCO, and three different numbered requirements in the schedules, all talk about the 'design code principles'. Further explanation about these 'design code principles' is provided in the Examining Authority report which concludes that "requirement 4 of the draft DCO offers the prospect of achieving an outcome of high design standard".<sup>2</sup>

Although North London Heat and Power is the only DCO where the term 'design code' is explicitly used, other projects which use the term 'design principles' and 'design parameters' are taking a similar conceptual approach. This approach is one which can help project implementation by agreeing high level commitments on design issues during the consent phase, so that there is then flexibility over the detailed design within this framework post-consent. The language of a 'design code' is one which is readily understandable by a range of stakeholders and carries an appropriate air of rigour. This seems a sensible approach to be highlighted in the toolkit.

## **Section 106 agreements**

During our research, it also became apparent that there seemed to be quite a widespread use of Section 106 agreements for NSIPs. There does not appear to have been much published discussion about the use of Section 106 agreements in the NSIP regime, however during our consideration of consultation and examiner reports as part of the scan for this research, we noticed frequent mention of Section 106 agreements in these documents. Often this was as a way of dealing with an issue raised by a local planning authority. As an agreement separate to the main DCO to help deal with an issue and gain support for consent, we believe they are another potential route to flexibility.

It appears that one or more Section 106 agreements have been entered into for 56 of the 65 consented DCOs that we examined. There are thus numerous

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<sup>2</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010071/EN010071-001810-6-%20-%20Final%20Report%20with%20appendices.pdf> (pages 39-40)

examples of the ways in which they have been used, but we give a few here. For the Port Blyth biomass project where a Section 106 agreement governs the establishment of 'Community Liaison Group'. In the case of East Anglia One where a Section 106 agreement for landscaping around the onshore converter station was part of the mitigation considered by the Examining Authority. For the Richborough Connection project where one Section 106 agreement deals with several issues, including landscape and habitat mitigation, public rights of way and historic environment issues. Similarly, for Progress Power, the one Section 106 agreement covers "payments to be made by the applicant for: (a) The Education and Employment Scheme; (b) The Local Services Scheme; (c) Connectivity; (d) Landscaping and visual amenity; (e) Traffic and Transport; (f) Skylarks; and (g) Discharge of requirements".<sup>3</sup>

For Walney wind farm there is a Section 106 agreement with commitments to that "relate to the following:

- further consideration of avoidance, mitigation and compensation relating to impacts on protected sites, and protected and priority species;
- consideration of the viability of the prior extraction of minerals from the area of search corresponding with the location of the substation;
- further assessment of the landscape and visual impacts of the substation proposals;
- the requirements for a 'strip, map and record' process of mitigation for any archaeological interest during the construction of the substation;
- safety of the local highway network, highways maintenance and the routing of abnormal loads from the M6;
- the need to maximise the use of, and support for, local businesses and employment".<sup>4</sup>

Finally, for the North London Heat and power project obligations included submitting a local employment strategy to the London Borough of Enfield and subsequent local labour reports following commencement of the development, submission of a construction travel plan and operational travel plan, a servicing management plan for non-waste deliveries as well as funding pedestrian and cycle improvements and a planning performance agreement with the London Borough of Enfield.

These examples demonstrate the range of issues being dealt with through Section 106 agreements in the NSIP regime. In many examples it is clear that Section 106 agreements have been used to manage issues which might otherwise have been dealt with through the Requirements section of a DCO, including future agreement of plans and monitoring. Although they are often mentioned in Examining Authority recommendation reports and Consultation Reports, the final agreements are not always readily available on the PINS website like a consented DCO and its requirements, and so careful consideration needs to be given to the transparency of these agreements and any commitments within them to stakeholders, in particular the local community. Further

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<sup>3</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010060/EN010060-001045-Examining%20Authority's%20Report%20of%20Findings%20and%20Conclusions%20for%20the%20Progress%20Power%20Station%20project,%20dated%2024%20April%202015.pdf> (page 78)

<sup>4</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010027/EN010027-000010-Examining%20Authority%20Recommendation%20Report.pdf> (page 17)

consideration as to best practice in relation to them is also important for any toolkit.

# 5. Case Studies

## Thames Tideway

The Thames Tideway tunnel is a 25km 'super sewer' which runs mainly under the River Thames in central London to provide for the capture, storage and conveyance of the combined sewerage and rainwater discharges which can currently overflow into the river itself and instead take them to the Beckton Sewerage Treatment works in East London. The project is currently under construction with a target completion date of 2023. There are 25 different work sites, and large number of stakeholders given the central London and sensitive River Thames location.

The DCO was submitted on 28 February 2013, accepted for examination on 27 March 2013, and consented on 12 September 2014. It is generally considered to be the largest project yet given permission through the DCO regime. A non-material amendment was made to the DCO in May 2017, to allow variation in the locations and depths of inlet and outlet shafts to be constructed at Beckton sewerage treatment works so as to facilitate their construction and reduce excavation waste. Another non-material amendment to the DCO is currently under consideration.

### *Flexibility within pre-acceptance stage*

As a linear project, stretching across 14 local authorities, the Thames Tideway NSIP undertook its pre-acceptance consultation on a site by site basis, as part of the legal requirement to consult on the whole project. In reporting the results of this consultation in the report, issues were themed and grouped. In responding to the issues raised in consultation, the role of the CoCP was identified as a means of responding to the points made and it was mentioned 125 times. It was also used as a mechanism of response through different stages of the consultation.

The project apparently used the City of London's Code of Practice for Construction and Demolition as a model and where CoCPs have been produced by the local authorities directly affected by the project, these were taken into consideration during the preparation of the CoCP for the project. Commitments on avoidance of damage to building during construction including heritage assets all secured though the CoCP were also set out in the consultation report. There is a commitment given for a Traffic management plan within the CoCP and that all road freight operators will be members of the Fleet Operator Recognition Scheme (FORS). There is a commitment to a construction communication plan which is contained within the CoCP. The CoCP also includes numerous other elements such as pollution incident control plans, emergency control plans, traffic management plans and community liaison plans.

Other commitments for standards to be included within the CoCP included emission standards for construction equipment, the role of river transport during construction, the requirements for contractors to produce a Sustainable Waste

Management Plan (SWMP) for each site, the effects on fish during construction, construction hydrology, construction air quality and site layouts.

*Use of flexibility tools within the DCO*

The DCO included a range of elements there were included to support construction flexibility in delivery. These have been fully reviewed as part of the project and are available as a discrete document. Here they are grouped and summarised.

The Environmental Statement (ES) used a spatial parameters approach so that infrastructure could be located within the limits of deviation and the purpose of this was to allow some flexibility during detailed design. Through a requirement, the project also takes a design principles approach. These include both project wide and site-specific design principles, allowing flexibility for detailed design work to be conducted post-consent within the framework of these principles.

The book of plans identified permanent above ground designs included three levels of flexibility – for approval (fixed), indicative (largely fixed) and illustrative (provides one possible manner of construction/visual appearance). The design parameters in many plans try to show a maximum so that things could be more easily varied and be smaller if required, with plans showing a maximum but then alignment to the design principles to, for example, minimize encroachment onto the foreshore, so there could be reassurance that things would be made as small as feasible within the overall maximum extent showing on the plans. There are, however, apparently a number of places where these maximums have been specified as too small for construction implementation.

The requirements section of the DCO is divided into project wide requirements (19) and site-specific requirements (353). This is a division only present in one other consented DCO examined: Hinckley Point C. The division of the requirements between project wide and site-specific sections was seen as a key route to flexibility. The intention here was that construction on any one site would not be held up by the discharge of requirements relating specifically to another site. It was apparently impossible to avoid some project wide requirements but these were agreed with an awareness of the criticality of the requirements to implementation and a desire that where possible the project wide requirements would not unduly hold up one of the three main contractors awaiting another.

The CoCP for Thames Tideway was constructed in two parts – Part A for the whole scheme (which would then apply individually to each site) and Part B that identified CoCP issues specific to each site. The requirements section of the DCO states that there will be a CoCP Part A and a CoCP Part B, but the requirements themselves do not them specify the elements to be included in these. The CoCP includes a general provision about allowing some flexibility so long as the results do not lead to impacts which are materially worse than the original intentions. These 'unless otherwise agreed' provisions are apparently widely used, particularly in relation to detailed design and landscaping requirements and are really important to project delivery.

There are apparently 14 Section 106 agreements on the Tideway NSIP, and 36 asset protection agreements. These potentially support flexibility by avoiding additional articles in the DCO / requirements to manage the issues being dealt with through such agreements. Many of the community liaison provisions for the

project are in the Section 106 agreements. For the Section 106 agreements, a template and set of terms was produced and all local planning authorities were invited to a joint meeting, and asked to agree to standard terms to help promote deliverability to contractors and ensure fairness.

*Main issues affecting flexibility in delivery*

When Thames Tideway was promoted as an NSIP, it was known that the promoter Thames Water would not be the delivery vehicle. It had always been intended that this would be undertaken by a PPP. This may have made the promoter more cautious in some ways but possibly also it means that the promoter did not consider the issues likely to arise in the construction of possibly the most complex NSIP project in practice to date.

While using a DCO approach provided some certainty in the time taken to examine the project, there were also disadvantages in this approach which may not have been apparent if other methods had been used such as the TCPA mechanism or a Hybrid Bill. However, both approaches also had potential weaknesses, not least the scale of the project and the necessary number of local authorities involved in a project that traversed the centre of London and the potential risk of political interference.

Now into the construction phase, the contract for delivery has been let in three geographical parts. For those engaged in construction, one of the key issues has been the role and development of the reference design and the extent to which the project's promoters assessed its deliverability. We were told that the project was only 5-10% designed at the time of applying for consent and detailed design work continues. While there was some construction advice, the deliverability of the reference design was not stress tested nor were alternative design approaches considered. There were also considered to be specific issues for design and build projects and their procurement which need to be considered in the reference design.

The ability of the project to utilise more efficient and effective methods of delivery have been hampered by a lack of flexibility in the DCO and it was suggested that fewer constraints put within the DCO may have helped with these issues in practice. It was also suggested some of the dimensions within Schedule 1 of the DCO are quite tight and whilst there was a push for flexibility around land take in the consent, less thought was given to flexibility around dimensions (which has then led to a non-material amendment to the DCO to allow more flexibility around dimensions).

It was also suggested that flexibility could be improved if the ES was stress tested – that is if it had been tested to ensure that the elements of the ES worked together and whether it was genuinely assessing a realistic worse case scenario. It was also suggested that when limits were defined in the ES these should be examined to assess what implications that may have on the delivery of the project. While changes in the delivery of the project might be able to be managed using Environmental Effects Compliance (EEC) there are numerous changes which exceed these limits. This has resulted in material losses to construction efficiency and potential programme implications. Additionally, it has become evident that several aspects of executing the Reference Design were 'under assessed' within the ES, leading to severe impacts on construction efficiency and cost. However, the use of EEC as an everyday tool of screening

had provided to be an essential component of flexibility for delivery on individual sites.

## **Progress Power**

Progress Power is a gas-fired power plant with a nominal generating capacity of up to 299 MW proposed to be built on the former World War II Eye Airfield in mid-Suffolk, England. The DCO was submitted on 31 March 2014, accepted for examination on 25 April 2014, and granted on the 23 July 2015. The scheme was promoted by Stag Energy, in parallel with a largely identical proposal for another gas-fired power plant with a nominal generating capacity of up to 299 MW proposed to be built on the Hirwaun Industrial Estate, Aberdare, Wales, which received consent on the same date.

Both Progress Power and the Hirwaun Power Station are designed as rapid response gas power stations which could respond to times when renewable electricity sources cannot meet national electricity demand. The consent for both has been transferred to Drax Group, and preparatory works have commenced ahead of a final investment decision which would then lead to full construction and commercial operation commencing in the early 2020s. A non-material change was made to the DCO in November 2016 to alter some of the parameters and locations of various structures consented by the order to make it easier to construct the preferred solution of a single gas turbine generator power station.

### *Flexibility within pre-acceptance stage*

The Consultation Report for Progress Power Limited (PPL) includes several references to flexibility and committed to longer term engagement with stakeholders<sup>5</sup>. Unusually, there was advice to the promoter on flexibility from PINS particularly related to the reasons why electrical and gas connection were integral to the DCO. The Planning Inspectorate advised that the ES should be clear in showing which works plans related to which option in the DCO. The Planning Inspectorate also suggested applications that may set useful precedents.

The main driver of flexibility was that PPL had yet to determine the number of turbines and associated stacks at the pre-acceptance point in the project. This was to allow a degree of flexibility to allow best available technology to be used at time of construction. This was therefore reflected in the DCO process. In order to support this flexibility, the promoters were required to ensure that the EIA assessed the worst case when design flexibility was proposed. In particular whether more, narrower stacks or fewer, wider stacks would represent a worst-case scenario in terms of visual amenity.

The consultation report made several commitments into the DCO, delivery and operational elements of the project. These included meeting concerns of PIL for landscape mitigation through an Outline Landscape Mitigation Strategy and Outline Landscaping Plans in the context of the local authority's design principles

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<sup>5</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010060/EN010060-000283-5.1%20Consultation%20Report.pdf>

that also had to be agreed with the local authority before construction. There were also landowner concerns about access to the electrical connection compound but the promoter, while addressing these, did not include them within the DCO.

In recognising concerns for landowners during construction, the promoters indicated that they would be adopting a CEMP and a Construction Management Traffic Plan that would be included within the DCO. There was also a commitment to engage with stakeholders, local authorities and local communities as the project progressed, including issues for access to the Electrical Connection Compound and a landscape strategy to screen its components. There was also commitment by the promoters to continued engagement with the local community and key stakeholders following submission of the DCO, as well as throughout the construction, operational and decommissioning phases should a DCO be granted. There was also a stated intention to agree protective provisions with National Grid in the DCO.

There were commitments to achieving good design in the project, the use of environmental standards and the use of the best available technology from a Statutory Consultee. The Consultation Report referred to the design standards included within the Design and Access statement.

The Consultation report also mentioned the discussions that were underway with the local authorities at the time for a Section 106 Agreement for a community fund and the draft set of heads of terms for the proposed section 106 Agreement was mentioned as being available. The proposed areas of mitigation that were to be covered by the section 106 Agreement are: 1. To undertake agreed measures for socio-economic and educational improvements within the vicinity of the Proposed Development. 2. To assist with enhancing and/or improving connectivity between the Proposed Development and Eye. 3. To assist with enhancing and/or improving landscape and visual amenity within the Amenity Area.

There were a range of issues in relation to the construction phase including regard to be made to underground assets, lighting, traffic, safety, habitats and human health. There were considerable concerns expressed about maintaining access for landowners during construction and these were specifically addressed in the Consultation report, but it was stated would not form part of the DCO.

The consultation report also mentioned community concern about the design of the project and whether the extent of detail provided in the pre-acceptance consultation was adequate for stakeholders, PIL and the community to comment on the proposal project. This was particularly in relation to the proposed number of stacks in the completed project. The promoter's response was based within Not Environmentally Worse Than (NEWT) arguments. However, the commitment to the quality of the final design were included in the design and access statement. As part of the embedded design mitigation, the promoters stated that the defined land take had been minimised wherever possible and the Gas Connection and Electrical Connection have been designed the follow field boundaries as much as possible to reduce the loss and severance of agricultural land. The DCO Application seeks consent for between 1 – 5 stacks, depending on final technology choice.

There were also several community issues related to the scheme once in operation including lighting and access mentioned in the consultation report. The promoters made a commitment to adopt lighting design principles for the project in operation. For access, the DCO included a permanent access to the project once in operation to allow for vehicles to access the site for maintenance and in any emergency.

#### *Use of flexibility tools within the DCO*

The project had clear intentions to allow flexibility over the number of gas turbines, and this is apparent in the ES. The flexibility to have between one and five turbines and variance in turbine technology in this DCO is well known. This reflects the original promoter not intending to actually build and/or operate the power station but rather to obtain consent and sell this on. This flexibility was assessed through a golden thread of all possible scenarios in the ES, but this did apparently make the ES quite complex and difficult to explain to stakeholders as each chapter / topic required a different worst case scenario (for example, for some things, having 5 turbines instead of two is more impactful, but not others. For example, fewer turbines means fewer, taller flue stacks). It was also felt that with flexibility, trust of stakeholders and local planning authorities is key, and for promoters it is important to explain flexibility upfront and that it's not unlimited (for example, if two options are consented as options, only one will ever actually get built).

The requirement for flexibility in the PPL DCO application process was driven by the project's promoter that had the stated intention of selling on the project to an operator once the DCO had been obtained. A parameters based approach adopted in the DCO has allowed flexibility and is apparently now working as intended into project delivery.

The requirements section of the Progress Power DCO allows flexibility, with many things such as landscaping plans, details of fencing, a surface and foul water drainage plan, a written scheme to detail with the contamination of any land, a written ecological management plan, and a written scheme of investigation being dealt with post-consent through the framework provided by the requirements section. Requirement 3 on 'Detailed Design' allows considerable flexibility

Interestingly, although the same draft DCO was used for both Progress Power and Hirwaun, differences emerged between the two in their requirements section so that Progress Power ended-up with 23 requirements to Hirwaun's 21 and with some differences in wording within some requirements. This reflects, of course, the different sites, local communities, local authorities and statutory consultees between the two projects. The Progress Power site was apparently slightly more sensitive than the Hirwaun site, with heritage issues around the sub-station, for example.

The project includes a CEMP, under requirement 11, which allows some flexibility by saying that development shall not commence until a CEMP 'covering that numbered work' has been approved. A number of particular elements are specified to be included in the CEMP under requirement 11. Notably, the Progress Power CEMP includes a specific provision for setting up a Community Liaison Group when the Hirwaun Power one does not. We were told this was to deal with issues raised during the examination phase and as part of the response to and management of the concerns of the community.

The CEMP is considered a key place for much mitigation management, but it was felt important not to try and lock everything down too much too early as construction can be years after consent. There was a suggestion that listing out CEMP documents within the requirement can aid transparency, avoidance of doubt and help promote confidence. It was also suggested, however, that having an overly long list of things that must all be in one document can make it harder to implement as different specialist contractors might be working on different elements so sometimes having something spelled as a different requirement rather than all being part of the one CEMP requirement can add flexibility to aid delivery, as well as providing greater reassurance if there have been particular issues around that topic.

#### *Main issues affecting flexibility in delivery*

A major issue for the implementation for the project occurred when it became clear that a major element of the operational kit (fan coolers) had been omitted from the DCO and so the promoter had to return for a non-material amendment to the DCO, which was obtained. This delayed the project by five months.

There were further issues on the provision of access to the project when it was found that the access point included within the DCO could not be used as there were protected tree roots impacting the construction of access roads (the original consent had taken into account the extent of the above ground trees, but not their roots). An alternative access point was secured using an application with the TCPA but as this was outside the DCO, this did not have accompanying compulsory acquisition powers giving rise to potential issues with landowners. Greater pre-application contractor engagement might apparently also have assisted in considering fully the options and needs for construction compound access.

There were issues about contradictory requirements, for example on Hirwaun stating that no part of work could commence before bat mitigation was in place but that actually requiring some works itself. Similarly on Progress, some preparatory work required hedgerow approval but this was apparently not possible within the DCO requirements as it would count as works itself, and this had to be resolved through an application through the TCPA.

### **East Midlands Gateway Rail Freight Interchange**

The East Midlands Gateway Rail Freight Interchange (RFI) is an NSIP comprising dedicated rail access and reception sidings, an intermodal facility, approximately 6 million square foot of rail served warehousing with accompanying infrastructure being built near the East Midlands Airport and M1 motorway in Leicestershire. The site includes good road access for HGVs whilst the rail terminal connects to the Castle Donington freight line. The scheme was submitted on 29 August 2014, accepted for examination on 19 September 2014, and the Secretary of State granted consent on 12 January 2016. There have not been any material or non-material amendments to the consented DCO.

#### *Flexibility within pre-acceptance stage*

In the Consultation Report there was no mention of any requirements for flexibility and most of the focus in the report was on more general rather than specific issues related to the project. There were few commitments to further

consultation or specific actions beyond the DCO in the Consultation Report. The single commitment that was made in response to a local resident was for additional landscaping and earthworks at the eastern end of the bypass for screening to further reduce the direct effects of the bypass.

*Use of flexibility tools within the DCO*

Article 4 of the DCO sets out the project is to be carried out within a set of 'parameters' shown in parameter plans. The role and use of flexibility in this scheme are regarded as very important as it is commercial in nature and many of the specific details of the scheme cannot be finalised until occupiers are engaged and their requirements understood.

The DCO includes a schedule of 26 requirements. A number of these are typical of many DCOs, such as those relating to an Ecological Management Plan, but requirement 15 relating to building sustainability is less common in DCOs (but apparently common for warehouse schemes consented by TCPA). A number of requirements relate to, and enable, flexibility of implementation. It is noticeable that requirement 2 talks about 'phases of development'. Under requirement 4, the highways works may be implemented in a phased manner, with a table indicating the highways works, stages of development, and relevant body for approval. Requirement 6, meanwhile, allows for detailed design approval post-consent.

The project includes a Construction Environmental Management Plan, under requirement 11. There are a number of specified elements which must be included in this, and the list of these grew from 12 to 18 items between draft and consented DCO, for example with the addition of a traffic management plan. There is a provision to update the CEMP between phases of the development.

Although there has not been a non-material (or material) amendment to the DCO, there has apparently been the use of planning permission to vary some details of the associated development warehousing. The commercial nature of the scheme is a major issue when considering the methods and means available to amend the scheme. The non-material amendment approach is identified as being too long and uncertain within the commercial operating environment. Instead the promoters have used full planning application processes and made subsequent amendments through conditions.

*Main issues affecting flexibility in delivery*

The main issues concerned with flexibility in delivery were identified as being primarily related to the lack of experience in this type of project and associated understanding of flexibility in the NSIP regime. The second set of concerns have related to the lack of suitability of the NSIP regime for the commercial operational environment of SRFI schemes.

There have also been major problems occurring through a lack of understanding of the regime and this has meant a constant education and informing process for other occupiers of the EMG together with their advisers. There is also a lack of understanding between the NSIP requirements and planning conditions in the TCPA system. This has meant that there has been a continuing role for advisers well into the project's delivery and that the lack of understanding has meant that legal and planning advisers continue to be involved in the discharge of requirements, although it was consented over two years ago. This is very unlike

any other major scheme consented under TCPA and adds more cost and potential delay to promoters and applicants.

The delays in making changes in the DCO can lead to a potential loss of occupiers and investment. Where changes have been required in the DCO, the quickest route has been through a planning application rather than a non-material amendment where this is possible. If this speed is not included within the system, then there are fears that the investment could go to other locations or abroad. Investors and occupiers are seeking certainty. In this kind of NSIP, it is not possible to anticipate all the changes that will be required by occupiers who will not be engaged at the time of application. These issues are perceived to be associated with this type of application not with the drafting of the DCO but with the slowness of the system for change. SRFI projects differ from others in that they are reliant on subsequent occupiers and therefore can never be in their final form even if constructors are on board from the outset.

To improve flexibility, local authorities should be permitted to negotiate and agree amendments to the DCO in a way that is similar to planning conditions. Once the DCO has been approved, local authorities are keen to work with promoters for a smooth and efficient delivery, even where they may have been against the development when first proposed. The development of requirements was assisted by numerous discussions with the local authority during the early stages of the development of the DCO and during the processes prior to final drafting. As local authorities are keen to see developments implemented, where TCPA processes are used, local authorities and other parties are more familiar with them and the local authority is well placed to deal with them quickly.

The starting point for drafting requirements was the type of conditions used for similar large projects elsewhere but outside the NSIP regime. This means that some of the requirements on sustainability for example are unique in this DCO but would be usual in a TCPA application as conditions. Agreements on interpretation of requirements may be undertaken with the local authority and not through any other amendment process where they are not clear. It is possible to work on requirements within different timescales to meet specific needs of construction and as part of process management and it would be helpful if local authorities could be more involved at examination phase, so they are then able to understand the complexities of a major scheme in delivery. However, local authorities need the resources to be able to support scheme promoters to achieve flexibility. The role of the Examining Authority is important in the drafting and detailing of requirements e.g. including specific codes for different environmental issues; there is no overall consistency between examining authorities.

In future and based on the experience of EMG, this team will be using a framework approach to drafting the CEMP rather than having a long list of specified components in the requirements.

# 6. Suggestions for the toolkit

We are making the following recommendations in relation to NIPA's desire to develop a toolkit.

## **Pre-consent contexts and issues**

### **1. Establish a golden thread to delivery throughout the NSIP process**

It was suggested to us that having a golden thread that led to delivery of the project from the start to the completion of the process would act as a mechanism for reference and point out any issues in the process. It was considered that this thread would help to identify the points where flexibility would be likely to be required and how this could best be managed in the delivery of the specific infrastructure type.

### **2. Establish a single narrative in the ES**

A view was expressed that the practice of developing the ES in sections prepared by different experts on the team can be problematic if there is no point at which the issues between components within the ES are examined and their influences on each other discussed and potentially mitigated. It was suggested that this could be achieved by having a consistent view of the delivery outcome in the ES and examining all the elements of the ES against this objective. It can also be difficult for stakeholders to understand the wider implications of the NSIP and any changes to it and for constructors who later found inconsistencies and incongruities between these chapters which they had to deal with as part of the delivery process. This was exacerbated where there was multiple layering of documents, with cross-references to different documents, requirements, codes and standards embedded as weblinks within the ES chapters and their specific implications for any development are not set out clearly.

### **3. Drafting of the ES and other documents**

It was suggested that those working on the ES and other documents such as the consultation report regard them as clear and workable given that they spend much of their time developing and interpreting them. However, subsequently, on re-reading the ES and the Consultation reports prepared for these scheme are frequently very difficult to understand and are not particularly user friendly. It was suggested that these might be independently read to ensure that they make sense to those using the documents later in the process.

It has also been suggested that significant attention is paid to the utilisation of significance criteria particularly where these are in relation to quantitative criteria such as noise, vibration or traffic. Where there is genuine potential uncertainty in the reference design and its construction methodology, it is important that a genuinely worst-case scenario is

reported. The scope of the ES should where possible include the remedial infrastructure works required by the project.

The ES should avoid being fine-tuned so that any small increases in magnitude of effect could trigger another significant effect. These need to be sense checked to avoid this. Where there are construction ES compliance assessments, care should be taken over managing processes if these are being made subject to approval or provided for information to third parties.

#### **4. Early engagement with contractors**

For those projects that had entered the construction phase, there was a view expressed that earlier and fuller engagement with contractors could have made a significant difference to later pressures for flexibility. These included examining details of operation sites, the phasing and constructability of works, the scope of likely remedial works on third party assets and ensuring that these were matched by the DCO contents or included appropriately in the codes and requirements, examining the inclusion of all elements of the delivery of the scheme and identifying conflicts between elements of the scheme as set out in the DCO.

#### **5. Stress testing options**

When reviewing the delivery options as part of the DCO preparation, it was suggested that it would be useful to stress test options to examine their delivery in the round not just in terms of achieving a DCO.

#### **6. Advice to scheme promoters in need for flexibility in project design and DCO**

Promoters have different reasons for progressing NSIP schemes towards a DCO. Some have no intention of building out the scheme when they obtain a DCO and intend to sell it on to operators. In other cases, the promoter is the intended user. It has been suggested to us during this work, that there should be an advice note for all promoters about the need to consider flexibility as an objective throughout the whole of the process. As this research has found, it is possible to create flexibility in a variety of ways including codes and requirements as well any informal agreements, making non-material amendments to the DCO, using s106 and using the Town and Country Planning Act. However, dealing with the need for a change as the project progresses into implementation can be costly, it can delay construction while changes are sought, and it can cause uncertainty about the best way to proceed in ensuring that the DCO is not undermined in any way.

#### **7. Reference designs**

Reference designs have two key roles in the NSIP process. The first is to offer a developed a design that gives some certainty to all those involved in the project's delivery including the community, local authority and the Planning Inspectorate. Where this is the case the reference design needs to be developed and tested by the constructor and they need to be centrally involved in the EIA to test the deliverability of the project before the details are included within the DCO.

The second approach is to provide a light or indicative reference design and then include a range of flexibility for delivery within the DCO. In this

case, there is still a need for ECI so that there can be a review if the likely significant effects of the project that can be incorporated within the DCO. In both cases, the constructor needs to be available to advise the promoter on any third-party agreements made during the examination and the likely effects they will have on the constructability of the project and if necessary advice on the implications for the ES as a consequence.

### **8. Order limits**

When considering order limits, these should always take into account the likely extent of remedial and replacement works for third party infrastructure which could be some way outside the project site boundary.

### **9. Disapplied legislation**

There has sometimes been confusion in projects relating to disapplied legislation, for example the need to ensure that the requirement to gain abstraction licences under the Water Resources Act 1991 is disapplied by the DCO. Care should thus be taken over the interaction of consenting regimes and the ability to disapply legislation. There should also be protective provisions or requirements to replace where statutory or non-statutory bodies have the meaningful ability to prevent the project being delivered post the DCO.

## **Post-consent contexts and issues**

### **10. Establish a full commitments register**

There was a considerable level of support for establishing a full commitments register from the beginning of the DCO process including pre-acceptance stages. This would build on the commitments register that is part of the ES process but would go further to include those commitments made in the Consultation process, through Section 106 agreements, and those made during the Examination and associated side discussions with parties with an interest in land, statutory consultees and undertakers and local authorities.

There was also a view expressed that such a register could help promoters and their advisers in ensuring that commitments are not contradictory, which has sometimes occurred in practice. Further such a register would easily identify the parties to be consulted if there need to be any changes in the delivery process. Some participants also considered that this commitments register would be very useful for constructors where there is frequently a need to make operational sense of nested agreements that are set out in 'geological' layers in the process. Contractors can find these difficult to access and interpret in relation to each other.

The register should clearly show what commitments have been made and where they are secured. It should be readily available to contractors, stakeholders and the public. It should also be kept up-to-date, for example explaining if some commitments no longer become applicable due to post-consent design / construction changes.

### **11. Keep Consultation Report in mind in DCO process and in delivery**

It was acknowledged that the Consultation report was rarely viewed after acceptance of the NSIP into the DCO process. It was considered that this

could raise difficulties when working with the community subsequently when earlier agreements and discussions may be overlooked in practice. By including the commitments discussed and apparently made in the consultation report in an overarching register may provide a means through which these commitments can be openly met and that the community can be informed that this is the case. It was thought that this might improve community trust and confidence.

**12. Consistent community liaison presence throughout the process from community consultation to scheme delivery into operation**

While some projects arouse little interest and engagement from the community, in this research, experience has shown that the same scheme located in two different parts of the country can have very different responses from their communities. This response may relate to the specific site chosen for aspects of the project's delivery or wider issues of design and operation. In having a consistent community liaison presence for all aspects of the process including consultation, examination, construction and operation provides a means of communicating with the community and conveying their concerns directly to the promoter. There may be added benefit from having a transparent commitment to this made in the requirements section of a DCO so that if there is increased flexibility with more detailed design issues being dealt with post-consent, it is clear how the public can be involved in this.

**13. Consider if there are any specific issues where the project promoter is not the deliverer and consider how due diligence can be assessed for an NSIP scheme**

How can due diligence be undertaken by a potential purchaser of a consented NSIP or a constructor tendering for the delivery of the project. Is it clear where the elements of the project and its associated ES, requirements and codes work together? Also, is it clear where the risks will fall in the process of construction and delivery?

**14. To consider providing advice to statutory consultees and local authorities about their role and contribution to the delivery process**

In the case studies, there was evidence that statutory consultees and local authorities were not always recognizing their roles and responsibilities for delivery for NSIP projects. This is particularly in time taken to respond to requests for comments and in the ways in which discharging requirements are undertaken. Where the scheme promoter is funding professional capacity in these organizations, there might be consideration of indicative time limits in PPAs. If funding is provided to organizations without a PPA form of agreement, should there be one and should this include indicative times for responses?

## **Requirements**

**15. Drafting / wording**

It is important to consider careful wording of the requirements in the DCO. Even minor differences in wording can have significant impacts, for example saying 'no works can start until...' as opposed to 'no works at Site X can start until...'

Requirements often follow the tradition of planning conditions, however the DCO is a more powerful consent than a planning permission and is drafted by the promoter's legal advisors (within the conventions of Statutory Instrument drafting). There is thus the possibility of some innovative approaches, allowing flexibility and aiding project delivery, especially if there is alignment with the ES.

The number and complexity of requirements can be heavily impacted at Examination by relations with the local planning authority, statutory consultees and communities. Confidence, transparency and strong relations built pre-consent can potentially assist in preventing additional complexity and doubling-up of safeguards in the requirements section.

#### **16. Site specific and project wide requirements**

A division between project wide and site specific requirements has been included in the requirements sections of some larger DCOs. This is an attempt to enable flexibility on larger projects, but can itself be a source of additional complexity. Careful consideration is required as to how the two parts of the requirements will actually interact in practice and whether this helps simplify implementation or not.

#### **17. Phasing and enabling works**

Flexibility can be supported by allowing phasing in the requirements, for example having a clear schedule of how certain components and requirements will interact over time, and triggers in delivery for certain stages of detailed design.

Implementation can sometimes be supported by making a distinction between enabling works and main works in requirements. For example, if mitigation strategies require some enabling works to allow them be finalised prior to the main construction works. This aligns with allowing a partial discharge of requirements, which can be by geography or by phase of the works.

#### **18. Side agreements and protective provisions**

Where there are side agreements with third parties, these should be agreed after discussion with the constructors to ensure that they are not restricting delivery or are in conflict with existing agreements and the relationship with protective provisions made clear. It is important to ensure protective provisions do not provide third parties with greater powers than legislation or disappplied legislation would normally allow them.

#### **19. Discharge of requirements/protective provisions**

The research identified that bodies in receipt of requests for discharge processes to commence were being subjected to the same validation processes as planning consents, with in some cases, considerable associated delay. This issue should be clarified across all NSIPs.

Once requests for discharge of requirements are received by appropriate bodies, there should be specific time limits for their discharge including time limits for requests of further information. The process and timescale for discharging requirements should be clear and common understanding reached between all parties.

It is important to clarify whether if there is a delay or refusal for the discharge of requirements that there should be a process of appeal for the NSIP promoter, with reasonable timescales specified. It may be useful to consider whether it is valid to attach conditions to the discharge if requirements approvals and whether there should be deemed approval if not determined within time frame. This would avoid the current situation where often the alternative to projects providing an agreement to determining authorities that they may exceed established DCO determination timescales is either an outright refusal (and therefore a full re-submission being required) or an appeal to the Secretary of State for determination with an undetermined timescale for this to be concluded.

A planning performance agreement can cover expectations and timescales for the discharge of requirements and can also make allowance that ultimate deadline can be extended by agreement unless there is an agreement for deemed approval.

## **20. Clarification about tailpieces and, if unacceptable, alternative ways of enabling local authorities to agree changes**

There continues to be considerable discussion about tailpieces and the desirability of being able to agree changes with local planning authorities if there are no significant / material impacts from those changes. It is generally felt local planning authorities could be more efficient at managing non-material changes than the Secretary of State and better understand local impacts. This could still usefully be considered and perhaps clarified by a Chief Planning Officer letter.

Even though the opportunity offered for flexibility in the use of tailpieces that can make changes in the design or delivery if an NSIP have been restricted and are now not used. However, the opportunity to make changes where agreed and within the ES scope add considerably to flexibility in deliverability. If these agreed procedures for change can no longer be included within tailpieces, can they be included elsewhere in the DCO or in CoCPs?

Even if the main DCO cannot be amended in this way, there has been successful use of the provisions to agree changes to plans and parameters within the requirements section using an 'unless otherwise agreed' approach with local planning authorities. Suitable wording to allow this is recommended to enable project delivery.

## **21. Education about the discharge of requirements**

There are still some groups who do not fully understand requirements or their discharge. Local planning officers and statutory consultee officers might still have no experience of the NSIP regime. Contractors may be in the same position. Investing in upskilling all stakeholders in this area may involve some short term cost but ultimately benefit promoters and all

parties interested in project delivery. The complexity of these processes seem to have often been under-estimated.

## **Codes**

### **22. CoCP/CEMP**

Where a CoCP or CEMPs are used, then there should be attempts to ensure that the mitigation measures reflect the certainty and uncertainty in the reference design and are addressed. It is useful to ensure flexibility in these codes to allow different approaches to construction to be taken, particularly if these codes have been agreed during examination and before a contractor has been appointed. In general, these codes are best finalised only when contractors have been appointed, within a clear framework from the schedule of requirements.

Flexibility might also be supported by an approach within these codes focussed more on acceptable standards / outcomes (with adequate monitoring) rather than overly prescriptive commitment to particular construction approaches.

Where issues related to highways and other infrastructure operated by third parties is included within these codes, it is important to take care on access and use by other third parties at the same time and the implications for the NSIP under construction. For example, a commitment to a certain number of lanes of traffic being open might then mean the contractor is hostage to third parties preventing this happening and then stopping construction works.

### **23. Design codes**

It would appear that the agreement of clear design principles and a codified approach to then govern the detailed design can promote confidence in more detailed matters being dealt with post-consent. Further consideration of these approaches would seem useful.

### **24. Public availability of documents**

There is very variable public availability of documentation agreed post-consent, particularly codes like the CoCP and CEMP, but also things like Section 106 agreements. This reduces the likelihood of common understanding between all stakeholders, but might also undermine public confidence in project promoters and contractors. Such community relations are vital, particularly if there is to be support and understanding for more flexibility being allowed in DCOs with detailed design, construction and thus implementation issue being finalised post-consent within agreed frameworks. It is helpful if promoters maintain a fully updated and in-depth website post-consent which has ready access to documents like the CoCP or CEMP as well as the full register of commitments already discussed.

Recommendations 8, 9, 15, 16, 17, 18, 20 relate to issues related to the drafting of requirements and future work to develop model requirements and protective provisions. Recommendations 22, 23 relate to dealing with flexibility in codes/frameworks in a consistent and intelligible way. Recommendations 10, 12, 13, 14, 19, 21, 24 relate to monitoring and management post-consent.

# Appendices

**Table 1: The number of requirements per consented DCO**

Project	Promoter	App made	Granted	Total no. requirements
Rookery South EfW	Covanta Energy	05-Aug-10	13-Oct-11	41
Ipswich chord	Network Rail	29-Jun-11	05-Sep-12	19
North Doncaster chord	Network Rail	22-Jun-11	16-Oct-12	12
Kentish Flats windfarm	Vattenfall	14-Oct-11	19-Feb-13	17
Brechfa Forest windfarm	RWE Npower	04-Nov-11	12-Mar-13	35
Heysham to M6 link road	Lancashire County Council	06-Dec-11	19-Mar-13	22
Hinkley Point nuclear	EDF Energy	31-Oct-11	19-Mar-13	232
Galloper windfarm	SSE Renewables	21-Nov-11	24-May-13	37
Triton Knoll windfarm	RWE Npower	01-Feb-12	11-Jul-13	22
King's Cliffe haz waste	Augean	14-Mar-12	11-Jul-13	25
Blyth biomass	RES	16-Mar-12	24-Jul-13	42
M1 J10a upgrade	Luton Council	29-Jun-12	30-Oct-13	18
Redditch improvement	Network Rail	04-Sep-12	31-Oct-13	18
Able Marine Energy Park	Able UK Ltd	19-Dec-11	18-Dec-13	44
King's Lynn line	National Grid	27-Jul-12	18-Dec-13	20
Stafford chord	Network Rail	19-Dec-12	31-Mar-14	8
North London line	National Grid	30-Aug-12	16-Apr-14	17
East Anglia ONE windfarm	Scottish Power	21-Nov-12	17-Jun-14	33
DIRFT 3 RFI second attempt	Rugby Radio Station	22-Feb-13	04-Jul-14	32
Rampion windfarm second attempt	E. On	01-Mar-13	16-Jul-14	43
A556 upgrade	Highways Agency	24-Apr-13	28-Aug-14	16
North Killingholme power stn	C.Gen	25-Mar-13	11-Sep-14	51
Thames Tunnel	Thames Water	28-Feb-13	12-Sep-14	372
Clocaenog Forest windfarm	RWE Npower	28-Mar-13	12-Sep-14	34
Burbo Bank windfarm	Dong Energy	22-Mar-13	26-Sep-14	13
Woodside Link	Central Bedfordshire Council	14-May-13	30-Sep-14	19
South Hook CHP	ExxonMobil, Total, Qatar	31-May-13	23-Oct-14	25
Walney windfarm	Dong Energy	28-Jun-13	07-Nov-14	42
Hornsea windfarm project one	Smart Wind	30-Jul-13	10-Dec-14	22
Willington pipeline	RWE Npower	30-Jul-13	17-Dec-14	20
Morpeth Northern Bypass	Northumberland County Council	15-Jul-13	12-Jan-15	28
A160 upgrade	Highways Agency	08-Jan-14	04-Feb-15	16
A30 Temple to Carblake	Cornwall Council	15-Aug-13	05-Feb-15	16
Dogger windfarm Creyke Beck	Forewind	29-Aug-13	17-Feb-15	32
Knottingley Power Project	Knottingley Power Limited	04-Oct-13	10-Mar-15	37

*Mechanisms to support flexibility (Requirements and codes): Summary report*

<b>Whitemoss Landfill</b>	Whitemoss Landfill	20-Dec-13	20-May-15	<b>34</b>
<b>Norwich Northern Distributor Road (NDR)</b>	Norfolk County Council	07-Jan-14	02-Jun-15	<b>34</b>
<b>Swansea Tidal Lagoon</b>	Tidal Lagoon Power	07-Feb-14	09-Jun-15	<b>41</b>
<b>Preesall gas storage</b>	Halite Energy	01-Dec-11	17-Jul-15	<b>40</b>
<b>Hirwaun power station</b>	Stag Energy	21-Mar-14	23-Jul-15	<b>20</b>
<b>Progress power station</b>	Stag Energy	31-Mar-14	23-Jul-15	<b>23</b>
<b>Dogger windfarm Teesside A&amp;B</b>	Forewind	28-Mar-14	05-Aug-15	<b>39</b>
<b>Ferrybridge Multifuel project</b>	Multifuel Energy Ltd	31-Jul-14	28-Oct-15	<b>48</b>
<b>Internal enhancement Port Talbot Steelworks</b>	Tata Steel	07-Aug-14	06-Dec-15	<b>18</b>
<b>East Midlands Gateway Rail Freight Interchange</b>	Roxhill (Kegworth) Ltd	29-Aug-14	12-Jan-16	<b>26</b>
<b>Hinkley to Seabank line</b>	National Grid	28-May-14	19-Jan-16	<b>45</b>
<b>A19/A1038 Coast Road</b>	Highways Agency	14-Nov-14	28-Jan-16	<b>12</b>
<b>Palm Paper CCGT</b>	Palm Paper	23-Sep-14	11-Feb-16	<b>21</b>
<b>Thorpe Marsh pipeline</b>	Thorpe Marsh Power Ltd	20-Nov-14	03-Mar-16	<b>23</b>
<b>A14 improvement</b>	Highways Agency	31-Dec-14	11-May-16	<b>18</b>
<b>Hornsea Offshore Wind Farm (Zone 4) - Project Two</b>	Smart Wind	30-Jan-15	16-Aug-16	<b>27</b>
<b>North Wales Wind Farms Connection</b>	SP Manweb	20-Mar-15	28-Jul-16	<b>20</b>
<b>York Potash Harbour Facilities</b>	York Potash Ltd	27-Mar-15	20-Jul-16	<b>11</b>
<b>M4 Junctions 3 to 12 Smart Motorway</b>	Highways Agency	30-Mar-15	02-Sep-16	<b>25</b>
<b>Meaford Energy Centre</b>	Meaford Energy Limited	31-Mar-15	19-Jul-16	<b>21</b>
<b>River Humber Gas Pipeline Replacement Project</b>	National Grid	15-Apr-15	25-Aug-16	<b>20</b>
<b>Triton Knoll Electrical System</b>	Triton Knoll Offshore Wind Farm Ltd	24-Apr-15	03-Sep-16	<b>24</b>
<b>Brechfa Forest Connection</b>	Western Power Distribution (South Wales) plc	29-May-16	06-Oct-16	<b>30</b>
<b>North London Heat and Power Project</b>	North London Waste Authority	15-Oct-15	24-Feb-17	<b>20</b>
<b>Glyn Rhonwy Pumped Storage</b>	Snowdonia Pumped Hydro Ltd	21-Oct-15	08-Mar-17	<b>25</b>
<b>East Anglia THREE Offshore Wind Farm</b>	East Anglia THREE Limited	18-Nov-15	07-Aug-17	<b>37</b>
<b>Keuper Gas Storage Project</b>	Keuper Gas Storage Ltd	24-Nov-15	15-Mar-17	<b>24</b>
<b>Richborough Connection Project</b>	National Grid	14-Jan-16	03-Aug-17	<b>21</b>
<b>Wrexham Energy Centre</b>	Wrexham Power Limited	18-Mar-16	18-Jul-17	<b>19</b>
<b>M20 Junction 10A</b>	Highways England	03-May-16	01-Dec-17	<b>15</b>

**Table 2: Types of requirements**

Type of requirement	Explanation - types of similar requirements included in each category	Frequency used
Time limits	time limits; time limits for commencement; time limits for cessation and restoration; time limit for commencing authorised development	60
Archaeology	archaeology; archaeology onshore; archaeology above mean low water level	55
Landscaping/Landscape	landscaping; provision of landscaping; provision of landscaping and restoration; implementation and maintenance of landscaping; landscaping and planting scheme; landscape and ecology; landscape works; landscape scheme;	54
water drainage	water drainage; surface water drainage; construction and surface water drainage; infiltration of surface water drainage; foul water drainage; operational surface and foul water drainage; final surface water drainage	49
contamination/contaminated land, water, materials	contaminated land; geology and contaminated land; contaminated land and groundwater; disposal of contaminated material; contamination; geology and land contamination; contamination risk; contamination and groundwater; land and groundwater contamination; contamination of land or groundwater	45
Ecology/Ecological Management	ecological management scheme; ecological management plan; ecological management plan above means low water level; ecological mitigation and monitoring plan; Ecology: wildlife mitigation measures; ecology; ecological management plan and aftercare; landscape and ecology; ecological matters; ecological mitigation	45
Noise (and vibration)	noise; control of noise during construction and operational phase; control of noise during construction and maintenance; noise and vibration; operational noise; noise monitoring scheme;	43
Construction hours/Hours of working/hours of operation	Construction hours; Hours of working; hours of operation	42
Amendments to approved details/changes	Amendments to approved details; approvals and amendments to approved details; amendments to approved plans; changes approved by the relevant planning authority	42
Lighting	lighting; lighting strategy; street lighting; construction lighting; external lighting and control of artificial light emission; permanent lighting scheme; temporal lighting; lighting management measures; colour and lighting; aviation lighting	41
Environmental management plan	Environmental management plan; construction environmental management plan; Environmental management and monitoring plan; Environmental mitigation; Environmental management system; adaptive environmental management	41
Access/Access management plan/restriction on access/site access/highway access	highway access; restriction on access; pedestrian/cycle access; access management plan; site access; vehicular access; construction traffic and access strategy; design and phasing of access and highway works; specification of access; permanent highway access; public access strategy; temporary access; access to works; access and roads	40

Fencing	Fencing; fencing and other means of enclosure; fencing and other means of site perimeter enclosure; temporary fencing	38
Decommissioning	decommissioning; decommissioning and site restoration; offshore decommissioning; onshore decommissioning; decommissioning, restoration and aftercare scheme; decommissioning strategy	35
traffic management	traffic management; delivery hours and traffic management; onshore traffic management; construction traffic routing and management plan; traffic management during construction; construction traffic management plan; traffic incident management plan; travel plan and traffic management plan; traffic and access strategy; traffic monitoring	33
Restoration	Restoration; low level restoration scheme; restoration of land used temporarily for construction; landscape restoration; site restoration; restoration works; soli handling and restoration; restoration and aftercare; restoration scheme	26
Requirement for written approval	Requirement for written approval; written approval	26
protected species	protected species; European protected species; European protected species onshore; mitigation of effects on protected species; protected species and nature conservation	25
detailed design approval/detailed design parameters	detailed design approval; detailed design approval onshore; detailed design; detailed design parameters; detailed design and implementation; detailed design parameters onshore	24 *
Stages of authorised development/Phasing of development	stages of authorised development; stages of authorised development onshore; stages and phasing of authorised development onshore; stages of the development and design approval; stages of the authorised project; stages of the development; phasing of the authorised development; design and phasing of works	23
Code of construction practice/CoCP	Code of construction practice; CoCP; Code of construction practice and CEMP	21 **
Flood risk assessment and mitigation	Flood risk assessment and mitigation; Flood risk assessment; flood risk: management strategy: flood defences; flood risk	18
travel plan	travel plan; travel plan and traffic management plan; travel plan during construction; construction travel plan; travel plan during operational phase	17
Highway/highway works/highway agency	Highway; Highway works; highway agency	16
waste/waste management	site waste management plan; waste management on site; waste hierarchy scheme; waste management during the operational phase; waste management - construction and operational waste; type of waste to be managed; type of waste to be treated; waste management implementation strategy; disposal of waste	12
mitigation strategies/mitigation site requirements	mitigation site requirements; mitigation scheme; environmental commitment and mitigation plans; mitigation planting; approval and implementation of construction mitigation plans; site specific mitigation scheme	12
Piling	piling; piling during construction period; piling techniques; piling and vibration	12

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commencement	commencement; commencement of the authorised development; commencement and completion of commissioning	11
Dust emission	control of dust emissions; control of dust emission during operation; control of dust emission during construction and operation	11
air quality	air quality; air quality monitoring scheme; control of air quality; air quality - emission reduction; air quality monitoring; air quality monitoring and mitigation; air quality monitoring and management; air quality management plan	11
Public rights of way	Public rights of way	10
Safety measures/safety management	safety management; safety measures; offshore safety management; safety management; aviation safety; navigational safety; road safety; construction health, safety and environmental plan; site safety and signage	9
removal of plant and machinery/other structures	removal of plant and machinery; removal of trees; removal of temporary bridges; trees removal	8
Habitat management plan	Habitat management plan	7
disposal of materials	disposal of filtered material; surface water disposal; disposal of waste; disposal of dredged material; disposal of contaminated material	7
Community liaison/local liaison committee	Community liaison; local liaison committee	6
reinstatement	reinstatement	6
In accordance with approved details	In accordance with approved details; development in accordance with approved details; development to be carries out in accordance with plans	5
Alteration, reconstruction or replacement of structures	Alteration, reconstruction or replacement of buildings; Alteration, reconstruction or replacement of crossing; Alteration, reconstruction or replacement of bridges	4
heritage	heritage interpretation; cultural heritage; protective works to heritage assets	4
emergency response plan	emergency response plan; detailed emergency response plan; emergency access road; emergency access	4
demolition	demolition of existing (structures); decommissioning and demolition	4
Vehicle movement	Vehicle movement; limits on heavy goods vehicle movements	3
Appearance	Appearance; approval of external Appearances	3
Provision against danger to navigation	Provision against danger to navigation	3
Felling	Felling	3
Expiry of development consent	Expiry of development consent	3
Compliance with approved details	Compliance with approved details; Compliance with outline plans	3
information dissemination and complaints handling	information dissemination and complaints handling	2
Landfill site	Landfill site; phasing of Landfill	2
BREEAM rating	BREEAM rating	2

\* - based on bold titles only. Looking at this in further depth, including the complete wording of all requirements, found it mentioned in 45 different DCO projects

\*\* - based on bold titles only. Looking at this in further depth, including the complete wording of all requirements, found it mentioned in 53 different DCO projects

**Table 3: Overlap in components between COCPs and CEMPs**

<b>Element</b>	<b>Where found</b>	<b>In CoCP</b>	<b>In CEMP</b>	<b>Own requirement</b>
Surface water and drainage management plan		Yes e.g. East Anglia One	Yes e.g. Stafford Chord	Yes e.g. Rookery South
Watercourse crossing method statement		Yes e.g. East Anglia One		Yes e.g. Rampion windfarm
Flood plan		Yes e.g. East Anglia One	Yes e.g. Thorpe Marsh	
Noise and vibration management plan		Yes e.g. Dogger windfarm Creyke	Yes e.g. Hinckley Connection	Yes e.g. Heysham to M6
Air quality monitoring		Yes e.g. Hornsea windfarm	Yes e.g. A19	Yes e.g. Knottingley power
Artificial light emissions		Yes e.g. East Anglia One		Yes e.g. Whitemoss landfill
Site waste management plan		Yes e.g. Triton Knoll	Yes e.g. Keuper gas storage	Yes e.g. Norwich Northern distributor
Pollution prevention plan		Yes e.g. Port Talbot	Yes e.g. Brechfa Forest connection	
Construction traffic management plan		Yes e.g. Glyn Rhonwy	Yes e.g. Hinckley Connection	Yes e.g. Progress Power
Travel plan		Yes e.g. Hornsea two	Yes e.g. Stafford chord	Yes e.g. Blyth Biomass
Dust management plan		Yes e.g. Port Talbot	Yes e.g. Hirwaun power station	
Landscape plan		Yes e.g. Glyn Rhonwy	Yes e.g. A19	Yes, as a LEMP e.g. A30
Habitat management plan		Yes e.g. Glyn Rhonwy		Yes e.g. Meaford energy centre
Written scheme of archaeological investigation			Yes e.g. M20 Junction 10a	Yes e.g. East Anglia THREE
Public Rights of Way Management Plan		Yes e.g. East Anglia Three	Yes e.g. Richborough Connection	Yes e.g. Abel Marine Energy
Ecological management plan			Yes e.g. Redditch Branch	Yes e.g. Daventry International RFI
Details of fencing and enclosures		Yes e.g. Hornsea two	Yes e.g. River Humber gas pipeline	Yes, South Hook CHP
Biodiversity mitigation strategy			Yes e.g. Richborough Connection	Yes e.g. M4 Junctions 3 to 12
Cultural heritage management plan			Yes e.g. A19	Yes e.g. Woodside link

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## About the authors

**Professor Janice Morphet** BSc Dip TP, MA, MA, PhD, FRTPI FAcSS  
@janicemorphet

Janice Morphet is a Visiting Professor in the Bartlett School of Planning at University College London. She is currently working on infrastructure planning, health, smart cities and their infrastructure and governance and sub-state governance in the UK. Janice has held senior posts in local and central government, was Head of the School of Planning and Landscape at Birmingham Polytechnic and on the ODA Planning Committee of the London 2012 Olympic Games. Since 2006, Janice has acted as a consultant and academic working particularly on infrastructure planning and public sector change.

**Dr Ben Clifford** BSc PhD PGCLTHE FRGS FHEA MCMI  
@DrBenClifford

Ben Clifford is Senior Lecturer in Spatial Planning and Government at the Bartlett School of Planning, where he is also the Course Director for the MSc Spatial Planning degree course and the Departmental Tutor responsible for 300 postgraduate (taught) students in the School. Ben's research interests are on the modernisation of the state and the implications for planning, planning professionalism, planning reform and the involvement of stakeholders in planning.