Infrastructure Delivery: the DCO process in context

Main Report

Professor Janice Morphet and Dr Ben Clifford

June 2017



Contents

	Executive summary	2
1.	The context	4
2.	The value of the DCO process	8
3.	Deliverability and the NSIP process	13
4.	Has there been an increase in detail?	19
5.	Is there a need for more flexibility?	26
6.	The role of detail and flexibility in deliverability	32
7.	What did we learn from the case studies?	37
8.	What would improve the system?	43
9.	Who should be implementing these changes?	51
	Acknowledgements	54
	About the authors	55

Executive summary

The Planning Act 2008 introduced a new regime for assessing and consenting Nationally Significant Infrastructure Projects (NSIPs), with a process which incorporated establishing the principle of development through Parliamentary approval of National Policy Statements, acceptance and time-limited examinations of and decision upon, projects. This regime has been largely accepted as a positive one by stakeholders involved in it, who value the certainty of decision making.

More than 60 Development Consent Orders (DCOs) have now been granted through the system, but the scale and timescale of many NSIPs means that most are only now entering the construction phase or are under construction. This phase has increased the focus on the relationship between how a project has been consented and how it is delivered, and in particular the balance between detail and flexibility in the DCO process.

Concern about this relationship promoted the commissioning of this research project, to address the question of whether the Planning Act process delivers the certainty and flexibility necessary to attract investment, permit innovation during the design and construction process, and support cost effective infrastructure delivery, whilst providing appropriate protection for affected landowners and communities. Addressing this question has involved desk based research as well as the collection of new empirical data from 35 in-depth interviews, 4 focus groups and a roundtable discussions with a full range of stakeholders including those involved in the system in general and in two specific NSIP case studies. There were then three further roundtable discussions with various stakeholders, research participants and NIPA members to discuss the emerging findings.

The research has found that detail can be driven by a wide range of factors and stakeholders in the system including environmental assessment, compulsory acquisition of land, public consultation, examining authorities, promoters and their advisers (lawyers and consultants), local planning authorities and statutory consultees, the National Policy Statements (and the tests contained within them), and location of the project. Some of this detail is viewed as important and necessary to understand what is being consented and its impacts, however a range of examples were given of problematic detail which can then make construction more difficult and, in some cases, restrict technological and construction innovation which can lessen the impacts of a project.

There are a range of routes to flexibility already possible in the regime including the use of envelope assessments (sometimes termed the 'Rochdale Envelope'), Not Environmentally Worse Than assessments, limits of deviation, temporary useof land, options within a DCO, and the use of requirements and a range of codes within them to govern flexibility / detailed design and construction. There were, however, a range of concerns about confidence in the use and acceptance of levels of flexibility and inconsistent approaches in evidence, for example in the use of codes / framing of requirements.

A range of further related issues have also emerged, for example the resourcing of local planning authorities and statutory consultees, and public confidence in their engagement in the process. These are important as the involvement and confidence of these groups is essential to supporting the higher levels of flexibility that make projects of this scale and delivery of time line, feasible.

Overall, the research suggests than often the granting a DCO has been seen by a range of parties as an end rather than as part of a wider process of delivering nationally significant infrastructure and that an increased focus on deliverability is important. To address this, a range of recommendations are made that are based on an aggregated incremental approach and in the last section, there are also indications of which participants in the NSIP process should take these forwards.

1. The context

The Planning Act 2008 introduced a new consent regime for Nationally Significant Infrastructure Projects (NSIPs). Before this there had been several attempts to streamline the planning consent process for major projects through amendments to planning legislation and regulations. However, the length of the Planning Inquiry for Terminal 5 at Heathrow led to the Eddington Review and its recommendation that there should be a stand-alone and more unified consent process for projects of national importance.

The NSIP system differs from the Town and Country Planning Act regime in several ways:

- the principle of development is derived from National Policy Statements
 (NPS) for each type of infrastructure. These are proposed by the
 government department responsible for specific infrastructure types and
 then approved by Parliament
- Secondly, the applications were initially examined by the Commissioners of the Independent Planning Commission (IPC) who have now been replaced by Examiners appointed by the **Planning Inspectorate**
- Before the applications can be examined they are required to go through a
 pre-submission process which leads on to them being submitted for
 'acceptance' into the system
- This pre-submission process includes a review of the **Environmental Impact Assessment** and the **public consultation** which is required to be undertaken by the scheme's promoter
- Once accepted, the applications are examined in a **public process** and determined within a **set time frame** defined in the Act.
- The **examination** takes six months
- There is a following three-month period for report and a second threemonth period for determination
- This process is designed to take a **year** from submission to determination
- The promoters are invited to draft their own **Development Consent** Order (DCO)
- When approved in a proposed or modified form, the DCO is enshrined as a Statutory Instrument
- Any subsequent changes to the DCO are required to go through material or non-material change processes that also involve approval by the relevant Secretary of State.
- The 'requirements' (like 'Conditions' in the Town and Country Planning system) associated with this approval can be discharged by several bodies determined within the DCO

"if the panel are on top of their game, they can get more useful information leading discussions ... I just think is a better way of the technical issues of finding out actually what the point is, rather than just scoring points from one side to another"

(Research Interviewee)

In 2011, the IPC was abolished and its role for NSIPs was taken into the Planning Inspectorate (PINS) that is now responsible for managing the process. Instead of Commissioners holding the examination and making a determination, the Planning Inspectorate now appoints Inspectors to act as the Examining Authority, reporting and making recommendations on the application. At the same time, the powers for determining the DCOs were changed from the IPC to the relevant Secretaries of State. There have been several further slight changes to the system since it was first introduced that have been stimulated by operational issues.

How has the system been used in practice?

Since the 2008 Act was implemented there have been:

- 11 NPS issued
- DCLG have issued guidance and PINS a series of advice notes to support the promoters of these schemes through the process
- There were 75 NSIP schemes submitted for DCO approval up to September 2016, at which point there had been 56 approved, 3 refused, 5 withdrawn and 11 were in progress
- The **statutory timescales** for acceptance and examination have been met in all cases but a few have been delayed at the Secretary of State decision stage so that some have taken more than one year to determine.

Community engagement in the process has been a core requirement and must be demonstrated prior to the acceptance of a submission. The community is made up of groups and individuals. The promoter's approach to consultation can be traditional, that is through newsletters, public meetings and exhibitions. The extent to which the different elements of the community have become engaged may depend on their experience with similar schemes or their understanding of the likely impact of the development. In many schemes, much of the community concern has related to the construction phase rather than the completed NSIP, which is within most people's experience to consider, although for some types of infrastructure (particularly major roads schemes) there appear to be concerns about both construction and completed NSIP. To engage meaningfully in consultation, communities frequently need some resources, greater access to understand the whole project, to know when it will be necessary to determine its detail and how they will be involved in this process at the time that it occurs. While communities may understand that the detail they might wish to see is not available at the outset, they can be reassured if their role in the decision-making process through consultation is clearly defined and quaranteed not just through the formal examination but also through any subsequent processes such as detailed design if governed through the requirements.

It is now nearly ten years since the NSIP process has been put in place. In this time, there has been a major change in the responsibility for determining project applications and there has been a period of accumulated learning. It is the view of some engaged in the process that the initial culture of the precautionary approach adopted by the IPC has remained since PINS took over the management of the system. There are also other changes to come including the introduction of the new EIA Regulations later this year and the outcome of Brexit (which might have specific implications for things like environmental regulation but also more broadly impact the funding of our infrastructure). These issues all suggest that this research is timely.

The National Infrastructure Planning Association

The National Infrastructure Planning Association (NIPA) was established in 2009 to support the NSIP process. It comprises all those constituencies involved in the delivery of NSIP projects including promoters, legal and environmental consultants, statutory consultees, constructors and local authorities. Through its work, NIPA has been able to engage with central government on the operation of the legislation and discuss potential marginal changes and improvements that have generally been accepted.

Why has NIPA commissioned this research?

NIPA holds regular roundtable discussions and events for its members on current issues. At a roundtable in February 2016, some issues emerged relating to increased detail being sought through the NSIP regime and particularly through examination processes. There was also a growing concern that some DCOs were consented in a way leading to a lack of flexibility in construction that was causing more expensive and less advantageous methods to be used. There were also time scale uncertainties in submitting and agreeing changes to the wording of the DCO through non-material amendments which are expected to be determined within six weeks but have no statutory timescale requirement. These issues were regarded as growing problems and were then further discussed by the NIPA Council and Board. It was agreed that some research should be commissioned through NIPA Insights to explore these concerns and to examine how they might be affecting the other benefits of the NSIP system. The UCL team was appointed and the research was undertaken between September 2016 and March 2017 and this is the report of our work and the recommendations which we feel follow from our findings.

The NIPA Insights research brief was:

Does the Planning Act process deliver the certainty and flexibility necessary to attract investment, permit innovation during the design and construction process and support cost effective infrastructure delivery – whilst providing appropriate protection of affected landowners and communities?

The UCL team undertook a survey of publicly available information for the first 50 consented DCOs that revealed as of November 2016:

- 7 schemes had been **fully constructed** (mainly highways and railways);
- 13 were **under construction** (mainly highways and windfarms);
- 11 had **planned start dates** for construction (mainly energy projects);
- 18 had **not started** construction and with no confirmed date to do so (mainly energy projects, 2 of which had been **cancelled**).

The high proportion of projects either currently under construction or about to be constructed has made the issue of the relationship between consent and project delivery all the timelier to look at.

Research method

The aims of the research were to:

 To collate evidence and stakeholder views about issues (the level of detail required in assessment, application, examination and consent of/for national infrastructure projects) versus the **impacts** of current practice on the quality of the process for all stakeholders, the impact of current practice on the quality of decision-making, and on the quality of resultant schemes, including their delivery

- To **objectively identify** the principal issues and impacts based on evidence and industry views, based on a strong cross industry conversation about this issue
- To identify practical recommendations which can support a move towards an optimum balance between detail, flexibility, process, decisionmaking and project outcomes for the planning and authorisation of national infrastructure projects

This research reported here is the result of these investigations. The research involved:

- 4 focus groups;
- 22 interviews with a range of stakeholders involved in the system generally;
- 13 interviews with a range of stakeholders specifically in relation to 2 case study NSIPs;
- 1 roundtable discussion with NIPA members

Emerging findings were also discussed with a range of stakeholders, research participants and NIPA members at three further roundtable events.

The findings and recommendations of this research are set out in this report. More detail on the methods, who participated and more detailed findings can be found in the 'Technical Report' published simultaneously. This report is based on the detailed findings of the research, as set out in the technical annexe and the recommendations have adopted an aggregation of marginal gains approach. Following the research and analysis of the findings, we have concluded that there is no single recommendation for action that would provide more certainty and flexibility in the NSIP process. Rather, there are several points in the process where those engaged in it can change or adapt their approach to create more flexibility in delivery whilst offering appropriate protection to landowners and affected communities.

Throughout the report, we have included quotations from our research participants (interviewees and focus group participants). These are in italicized text in boxes, and are illustrative of the range of opinion and evidence collected through our research.

2. The value of the DCO process

The NSIP process has been broadly welcomed

The system for obtaining consents for major infrastructure projects introduced through the Planning Act 2008 has broadly been welcomed by those engaged in the process:

- For **promoters** and those engaged in **delivery**, there has been strong support for the timetabled approach and consequent certainty about decision making this brings;
- The ability to make an application within the context of the National Policy Statements (NPS), which are the primary mechanism for examining any proposal has created certainty;
- The opportunity to discuss the project submission through a preapplication process with the Planning Inspectorate (PINS) has reduced promoter risk;
- These pre-application discussions include environmental assessment together with mandatory consultation with the communities affected which has enabled more **transparency**;
- Local authorities for these areas are also required to review this consultation and agree its adequacy for affected communities and landowners;
- It is widely felt the **inquisitorial examinations** are more productive than the previous adversarial inquiries; and
- The promoter can craft their own consent through **the DCO** and incorporate a range of other consents within the one instrument, including the ability to compulsorily acquire land.

"I think, now that we're delivering under the DCO, I think it's a fantastic consent overall, it does give us almost all the powers we need to deliver the project, it places controls upon us where it's appropriate to do ... I think, fundamentally, the DCO process, allows that flexibility for the applicant to choose its own route"

How has the NSIP process developed since it was introduced?

When the NSIP system was first introduced the IPC had the powers to determine NSIP applications and were concerned about the potential for judicial review of their decision making, applying a strongly precautionary approach which was recognised by all. Over time, more experience has been accumulated by all participants in the NSIP regime. The scheme **promoters** and their advisers have a better idea of what to expect at all stages of the process and can anticipate these issues as part of their preparation. There is also the opportunity to share

experience with others who have had similar applications or recently been through the process. This is organized through ad hoc arrangements and personal contacts, although this is by no means systematic.

"Having gone through it twice now, with two very big applications, I actually found that a relatively broad pre-application process was incredibly helpful, it meant that you could define something that was fit for purpose for our locality, but the challenge was making sure that the community engaged"

Those who have been involved in the NSIP process as **statutory consultees** have also become more experienced through their engagement. In some cases, there has been a greater working together of statutory consultees to share experience and approaches particularly in the Department of Food and Rural Affairs (DEFRA) family of agencies. This experience has also led some statutory consultees to establish specific units to manage DCOs, to issue their own advice about their areas of responsibility and set out some standard requirements. Most statutory consultees stated that this was an approach that they would be developing further. Where this occurs, this allows more certainty for promoters and communities affected by the project, together with landowners. It can also enable flexibility in delivery to be considered from the outset.

"We were looking for the ability to construct either one gas turbine, or two gas turbines, or three - up to five - so one of the things that we were trying to understand from PINS and their EIA team was how do we manage the worst case scenario, how do we approach that? So that was a reasonable dialogue, I think we were probably first of a kind in that... and we got there in the end and we got our consents which allowed us to do that"

"I thought that was quite positive, we got the feeling it did help to steer the inclusion of new stuff in the DCO plans, but that's when it stopped, they said 'we've done it now, we've given you our best compromise' and that, I think, was the frustration, that there was no ongoing ... yes, the initial encounter was, I thought, quite positive..."

What major benefits have been identified?

The major benefits of the system, as defined by those who participate in it are:

- **Certainty** The high success rate of DCOs in the system demonstrates that it has certainty as one of its key benefits and this is welcomed
- **Transparency** A further benefit of the NSIP system has been its transparency. While the NSIP approach generates considerable amounts of evidence both as part of the application and through examination, this is publicly available on line. This is accompanied by the audio recordings of the hearings and reports of each day's proceedings during the examination

"we know that we will get a decision on, or before, I think, [date] next year, which will really help us in terms of planning, for the supply chain, but also for bidding in for financial support through the government subsidy regime etc., it's really, really helpful for us to have that kind of certainty in terms of the timescale... the NSIP process does have its advantages in terms of a clear, transparent process with very defined consultation periods and a very defined timescale."

What criticisms are there of the NSIP system?

However, there are some participants in the system who are less positive about its operation in practice.

Landowners

Some landowners have found it difficult to understand the mechanism of the examination process and how this differs from a planning inquiry. While landowners are informed at the earliest possible time about the potential need for their land to deliver a project, there may still be uncertainty about the detailed design or route to be taken. This means that many landowners do not fully engage with the process at an early enough stage which may hamper their opportunities to participate in the examination process later. Landowners in rural areas will frequently be represented by land agents, each operating independently.

Where possible, scheme promoters attempt to come to an agreement with landowners outside the Compulsory Acquisition process, which is subject to detailed delineation of site size, its use during construction and subsequently. As the Compulsory Acquisition process is removing individual property rights, it is also subject to European Convention on Human Rights (ECHR) considerations. There are also issues for landowners further into the project's delivery when some changes in constructor's requirements for access or site use emerge during construction. Constructors will also want prompt access to sites and this may be before landowner payments have been finalised.

The community

There have been mixed responses from communities, that may be individuals, local groups and in some cases NGOs. Some have been positively engaged with the NSIP projects and this may be where there is longer experience of similar types of development in the area. The community groups that have been less supportive of the system are those where the NSIP promoter may be working on tight deadlines or where there is little information about the final detailed design of the development. Some groups have reported engagement from promoters in the process until the DCO has been granted but then no engagement after this stage, when detailed design, construction and associated development will be considered. There is also some uncertainty about which agency should be enforcing compliance with the defined requirements including codes within them. While some schemes outside the NSIP regimes have appointed independent persons, who receive all these queries and complaints and investigate them such as that on HS1, this has not been a general approach on NSIP schemes.

Another major issue for communities in all NSIP projects remains the issue of the disruption likely to be experienced during the period of construction. For some sites this may continue for many years including associated development to support the project. In these cases, communities wish to have some understanding of issues such as hours of working, access to their properties and nearby facilities, parking and debris on the roads. These affected communities also need to know who to contact for immediate action should these terms of operation be breached.

We would expect **consultation** to extend throughout the project's life by being specifically addressed in the DCO and the discharge of requirements. We found

that even where there was positive engagement with the community in the preapplication and examination phases, that this often **disappeared** following the award of the DCO. This may be linked to the change in teams and this is another issue that project management could ensure is addressed. Throughout the life of the project there is a need to **reduce the gulf** between consenting and construction teams that would also reduce a perception of a sudden stop in community engagement. Community engagement also needs to be included when more detailed design is considered post-consent.

"I'm really dismayed by the total drop off the cliff of the communication at the end of the inquiry, that was it, there was no more discussion."

"It's a steamroller, basically. There isn't a genuine attempt at engaging. As I said right at the beginning, to me, there were two parties they had to engage, one was the county council, the other was the landowners on the compulsory purchase, so they did that, they had to negotiate with them. The other people, I got feeling the DCO process was designed to expedite an avoid a public inquiry and make the whole thing much quicker, a done deal..."

"it's like a juggernaut"

Local authorities

Where local authorities have been engaged in more than one NSIP scheme or have been involved in major infrastructure projects before the 2008 regime, it is likely that they have already accumulated experience and understand how they may need to increase their capacity in response to the application. Local authorities that are new to the process are supported by the Local Government Association (LGA) and other local authorities, that can advise on the process from end to end. However, knowledge about the system varies considerably between authorities. Local authorities should prepare a **local impact report** on the effects of the development as part of the pre-submission process. These appear to be regarded as technical documents and there is little or no reference to these reports or their implications later in the process. Local authorities also must assess and **approve the pre-submission consultation** undertaken by promoters with communities and landowners affected as being meaningful. The local authority may be supported by resources provided by the promoter for these tasks but this is not required.

Many local authorities are also involved in the **discharge of requirements** and permissions for associated development. For the discharge of requirements some local authorities have agreed **Planning Performance Agreements** (PPAs) with the scheme promoters. These enable the promoter to support local authority capacity through funding. The PPA will include agreed timescales for the determination and discharge of requirements and how and if these discharges require consultation. However, there are some concerns where local authorities do not have a PPA and find that they have few resources to meet the pressures placed on them for requirement discharge, even where the element of the project in their local authority may be small. There may also be other cases where there is an **ambivalence** about this process in the local authority, particularly where the local political stance has been against the development. In some cases, particularly highways schemes, promoters seek discharge of requirements by the relevant Secretary of State and will not use local authorities. This potentially raises issues for communities about the transparency of the process and enforcement of

the requirements. Where PPAs are used, they are included in the DCO for any project. However, it may be reasonable to consider how they may be agreed subsequently to support the project's timely delivery.

Learning from the experience of the NSIP system so far...

Overall the NSIP process introduced in the 2008 Act has been welcomed. The issues that are emerging now are what might be expected as the system shifts in balance from a focus on obtaining the DCO to operationalising it as a means of delivery.

3. Deliverability and the NSIP process

The development of an NSIP scheme to the point where it is on site and being delivered takes considerable preparation and management through the entire process. However, much of the focus of promoters and their advisers has been in the first period of operation, to the point of obtaining a DCO. This has become a primary objective and deliverability matters within this have focused on specific issues such as compulsory acquisition and construction management. This narrowed focus on one part of the NSIP process has had some later unintended consequences that are exacerbated by the less time-controlled processes for material and non-material amendments once the scheme is in the construction phase. These could be avoided by paying attention to the flexibility required to support later constructability and delivery throughout the process. The ways this could be addressed are outlined below:

- 1. The establishment of a project within the NPS regime or where there is a choice of routes for consent, there is a need to establish that the NSIP is the preferred and most appropriate route to be adopted. The NPS provides both a Parliamentary approval for the principle of the project and a set of questions that are used to guide applicants and the examining authority. In some cases, the NPS are not as detailed as others and all parties might prefer a more detailed policy or at least consistency in the approach between all NPSs. Where there is a choice of routes, the speed and certainty in the NSIP regime will need to be assessed for deliverability against other potential routes to consent including using the
 - Transport and Works Act 1992
 - Town and Country Planning Acts
 - Docks and Harbours Act 1966
 - Hybrid bill procedure through Parliament

Where there is no choice of route, then deliverability will need to be included as a major consideration from the outset by all involved in the project and its regulation.

"In some cases, I've found that when you really want guidance, it's not there; it just says 'the decision maker must take into account the following' and you sort of think 'well, I know that, but what's our policy on it?"

2. Developing an NSIP project

 NSIPs promoted by public bodies, or using public funds, are likely to be considered through HM Treasury's five case business approval process that appraises options for the scheme. This process may already have included an assessment of the route, the likely land costs and construction feasibility methods which would all be considered by the delivery panel. This review will also consider land take, length of life of scheme and costs of construction. This may be known as a preliminary or reference design. Deliverability of NSIP projects promoted by the public sector will be a major consideration and will have been factored into their business case review. This focus will need to extend to the management of the project as it enters and progresses through the NSIP process and not be set aside in the effort to gain a DCO.

• Other projects: for projects that are not funded by the public sector, promoters may decide that a submission will only be developed sufficiently to meet NSIP requirements. This is most frequently the case for energy schemes that may be developed to meet the regulators' auction requirements. This lack of certainty about success in licence auctions means that promoters do not develop their schemes to the same degree of detail and would not wish to do so on cost grounds. In these cases, the promoters may sell on their schemes for implementation. However, all schemes whether for small or large, certain or uncertain projects will need to address their deliverability to support the value of the project. As flexibility reflecting construction and delivery requirements is given less attention in some projects, these issues will become known in the market place. This may be to the detriment of the project when being considered by regulators and investors.

"I think the beauty of a good pre-app is that we can work with the development envelope and we can set parameters, within which, if you can ... so the conversation would go something like 'if you cannot touch that bit over there',' or 'if you can carry your viaduct over that bit over there, then where you want to go within that envelope is fine'."

3. Pre-submission preparation

In both public and privately promoted NSIPs, the design of the project must be sufficiently developed for an environmental impact assessment (EIA) to be undertaken and for meaningful public engagement on the proposed project. In both cases, the flexibility required for deliverability of the project once consented will be a crucial factor to be considered.

The EIA will be:

- undertaken by specialist consultants
- will include assessments specific to the defined site(s) and the proposed development.
- The promoter will probably require an envelope approach to site definition which can give some flexibility, not least when ground conditions or matters raised by statutory consultees are considered. However, where greater flexibility is required, then a more detailed assessment may be needed to support this;
- The quality and appropriateness of the EIA will be considered by PINS as an essential element of the pre-submission process.

"You tend to find that the lawyers are coming in from the side and really trying to make the EIA really bullet proof and making a typical EIA much more involved in it, perhaps, than it would have been before."

"I think applicants use that pre-application period to different effectiveness, some are in more of a rush to get through it than others, but I think time spent there, particularly being open Certainty and flexibility in the Planning Act process and transparent about what's negotiable about the project and what isn't, is time well spent because you go into the examination knowing exactly where each other stands and as the examination should be, it's arbitrating between significant viewpoints and significant issues, rather than nibbling round the edges of lots of little things"

Community consultation will be

- undertaken by the promoter in the pre-application phase;
- This may be through a specific public relations contractor who will conduct a range of means of consultation including
 - Surveys;
 - o focus groups;
 - o exhibitions; and
 - public meetings;
- There may also be deliberative dialogue where the issues are considered in more detail.

The community will be concerned about how the project will be **delivered** and constructed including matters such as:

- the final appearance of the project;
- how they will be **included** in discussions about the development of the project during the delivery phase, including any proposed changes to the project that may be required to provide **flexibility** in delivery;
- construction management during the time of the works, that may take several years;
- the extent of **associated works** that may be preparatory or permanent parts of the development and how they will be consulted on these.

"It's the problem of if you're going to meaningfully consult, people have got to know what you're consulting on, but it shouldn't be so fixed that they don't feel they can influence and engage with it and have a real effect on how it comes forward, its impacts, and its desired reiteration and actually, whether it continues forward to a successful project at all, or not. It is Catch 22"

Community consultation must be **assessed** and signed off as appropriate by the local authority that will also make a statement of its own views in a **local impact** report of the proposed development.

"On the scheme I was in, there wasn't much awareness of the local impact report and there's a real risk, if the local authorities don't understand the importance of it because if they submit one and they've not given due regard to it, it could point out loads of issues which don't exist because they haven't read all the application".

4. Acceptance

There will be other requirements to be considered during pre-submission period and these are set out in the guidance issued by government departments and the advice provided by PINS. This guidance and advice already address issues of **deliverability**, but it is included in a range of documents that may serve to underestimate its importance. These do not

specifically relate to the **flexibility** that may be required and how it should operate or be secured though the DCO. All parties involved in an NSIP project could assist in improving the deliverability of the project by addressing this issue as a **key objective** throughout and this would then support the determination of flexibility and detail that will required to support a successful project **outcome**. This needs to be undertaken before the acceptance stage and will involve all parties in the process including promoters, advisors, statutory consultees and regulators, local authorities, the community (in its range of forms) and those with land interests. Once the pre-submission stage is complete then the NSIP is submitted for acceptance, which is a defined period of up to 28 days, excluding the date of submission. If the scheme is accepted, then it will be taken forward for examination by the examining authority appointed by PINS.

5. Examination

During the examination, which is **inquisitorial** rather than adversarial, the examiners will investigate a range of issues that they consider to be important in the application, that may need increased understanding or a more developed solution. This may include the **deliverability** of the project and how this is to be managed though the associated **flexibilities** that may be required in the DCO and its associated documents. To achieve this may need the provision of greater project detail at an earlier stage in the NSIP process.

However, consideration of **flexibility as a mechanism for deliverability** does not appear to be a systematic part of the examination process and this may later undermine the delivery and construction phases which are essential the completion of a successful NSIP. Failure to pay attention to these issues during the examination phase may lead to later unwillingness to address change through material and non-material amendments, result in costlier and less innovative solutions or undermine better community solutions.

The examination is timetabled for six months and all those who have participated in these processes describe them as being a **very intense period.** Not only is there a need to prepare for every day's examination process but also there are many **further negotiations and agreements** that are undertaken in the margins of the examination at lunchtime, evening or early morning through supplementary meetings and negotiations. Many of these will be at the behest of the Examining Authority but may also include negotiations with landowners or statutory consultees.

"The inspectors go out of their way to allow people to speak and hear what they've got to say and if they haven't got the confidence to speak, they can submit it in writing and my experience is they do get listened to and my experience is even a sceptical public, like at Hinkley at the beginning, by the end of the examination, at least knew they were going through a fair process, they trusted the planning inspectors and that was a real sign of success, we started off with hundreds of people objecting at the preliminary meeting and ended up with very few people at the last hearings because people knew they'd had their say and they trusted the inspectors to come to the right decision."

"I will say that once you go into examination, it is hellish because your life, for the next six months, or nine months, I guess until it finishes and you're turning round a lot of material and

questions and reviews etc., you're sacrificing a lot of your life to do that. However, it does give you the certainty of getting a decision in a timely manner which you never had with the Section 36 regime. So that is a positive."

6. The Development Consent Order (DCO)

During the examination, the Examiners will consider the proposed draft of the DCO. There is no specific obligation to focus on the inclusion of flexibility to support delivery and construction at this phase although this is the main use of the consent once obtained. After the examination, the Examining Authority will write a full report and will then recommend any changes they consider necessary to the relevant Secretary of State who has a period of three months to consider the report. The Secretary of State may approve the DCO in the form proposed by the Examining Authority or make changes to it. The Secretary of State may also refuse a DCO and this has occurred in three cases. In all approaches to the drafting of the DCO – from the promoter, the Examining Authority and Secretaries of State, delivery needs to be at the forefront on their objectives in drafting the Order and the ways in which flexibility needs to be incorporated into the Order in ways appropriate to the NSIP's implementation.

Once there has been approval, the DCO goes through Parliamentary process and becomes a Statutory Instrument. The DCO will contain detailed matters on construction and approaches to dealing with issues during delivery through design, environmental and construction codes (usually as requirements). However, without specifically addressing flexibility, the issues related to the delivery of the whole project, including the use of more innovative or cost-effective methods if they are available may be overlooked, creating later problems for the promoters and their contractors. They may also give rise to poorer outcomes for communities. There may also be requirements to be discharged by statutory consultees as the scheme is being built and 'Protected Provisions' to ensure the interests of statutory undertakers are considered. Some of the requirements to be discharged may be through the local authority and some through the Secretary of State. These discharged requirement processes may or may not include public consultation or engagement, although they may affect the community's interests.

7. Implementation

As the promoter starts to implement the DCO, then they will need to comply with the terms of the DCO, including its requirements and associated schedules. At this stage, without any previous focus on flexibility for deliverability and without any project management or early constructer engagement, the newly appointed constructors may have difficulty in optimising the delivery of the project for the promoters and the community.

8. Amending the DCO

If the promoters wish to change the terms of the DCO, at the request of the constructors wishing to use more innovative or cost-effective methods, to minimise disruption to the community, or because of technological developments, and do not have sufficient flexibility included within the DCO, then the DCO will need to be amended through the process of material and non-material amendments that must be agreed by the appropriate Secretary

of State. The process of non-material amendments is expected to take six weeks following submission but this is not a statutory time requirement and some have taken ten months to be determined. This open-ended timescale for non-material amendments does cause some disruption in a process that is otherwise time defined. Coming at the end of the process, when the promoter wishes to implement the scheme these can cause uncertainties particularly about the fear of delay. In practice promoters are likely to avoid making changes if they can or to use another route such as an application under the Town and Country Planning Act (for amendments to any 'associated development' approved in the DCO) to overcome the problem and operate with more certainty. It is also open to promoters to use the provisions for material changes to the DCO but none had taken that route at the time of the research. These issues can be overcome more readily, if the NSIP process has focussed on delivery and contractor throughout and there are embedded processes within the DCO that enable any changes to be undertaken within the codes as agreed and set out.

4. Has there been an increase in detail?

One of the two main purposes of this research as commissioned by NIPA was to examine whether there is any evidence that the NSIP process, from presubmission to DCO has become more detailed or whether there are issues relating to levels of detail in the regime. The 2008 Planning Act was meant to make the process of obtaining the consent for development less detailed by having the principle of development contained in the NPS with the individual development addressing environmental issues and mitigation in the delivery of the project.

"If you look in the policy statements, go to the policy statements and it will lay out ... just by way of example, if you go to the annexes of the national networks policy statement, so go to the appraisal of sustainability, go to the tables and the matrices that assess the impacts of the national policy statement ... what it says is, essentially, this policy statement gets a positive environmental appraisal and the basis on which it's come to that conclusion is local mitigation of impacts, so air quality, noise, dust, etc. So you've got a really big policy position, but it all hinges on appropriate mitigation and appropriate mitigation needs to be in response to the assessment and the assessment will be framed in the degree of flexibility that the project is cast in."

Where has detail been perceived as increasing in the NSIP process?

The round table that was part of the inception of the research considered that there was an increase in the detail required in the process at several key points and that this was a cumulative increase over time. The principal areas where an increase in detail was perceived to be occurring included:

- at the pre-submission stage for environmental and other assessments;
- through the examination process where more details on evidence and matters of detailed design;
- specific site identification;
- the management of construction; and
- in the context of the wording of the final DCO.

The participants in the system suggested that much of this increase in detail was occurring during the examination so that evidence had to be found quickly or that resolution of detailed issues had to be undertaken within the margins of the examination process.

It is important to note that not all those we interviewed agreed there had been an increase in detail since the regime started operating. Instead, many thought that levels of detail had been high since its inception and continued to be so. Some

thought there were legitimate reasons for requiring detail on some issues to understand what is being consented, its impacts and mitigation.

Why has there been an increase in requests for detailed information in the process?

• Need for flexibility: The suggested increase in detail in the pre-submission stage was concerned particularly with environmental assessments. While there is the possibility to have an 'envelope' defined within which the future development will be located, there has been a tendency to define these envelopes as widely as possible to offer maximum flexibility for later implementation of the project for the scheme promoter. This has been regarded as the main mechanism for ensuring flexibility during delivery. This flexibility is required as the DCO is relatively difficult to change once approved. This has led to consideration of why the envelope should be of this size and scope and led to more detail being required to support these arguments.

"The EIA process, they've got you; so often the whole design team, the promoter, clients, they're scared. When I started these things in 1990, rarely did we have legal advisors involved, they came right at the end and just signed off. Now, they're probably the first bunch of consultants that are employed - that's the nature of their job - they're naturally cautious and everything is belt, braces and bullet proof. So yes, it has become more complicated."

- **Risk aversion:** There has also been a tendency to treat the environmental statements in a **cumulative** way so that evidence that has been considered in other NSIP examinations is included to provide more detail. This is undertaken as a risk avoidance measure and may have implications for the cumulative impact of development
- **Community interests:** Communities have a view about the appearance or process of design for the **outcome of the scheme**. Local communities are also concerned about hours of working and the uses associated with construction that they may be required to live with for several years

"So we went to the local community, not with a full idea of how this is going to look yet, but just to introduce ourselves and try and get any questions and we got a pounding for it. So we were then trying to do a positive thing which was 'look, here we are, any questions, this is what we're trying to do, thoughts welcome,' blah, blah, blah, but people wanted to see absolute detail before we even got there, that was an interesting lesson for us, we thought we were doing a good thing there, but we're actually doing a bad thing. So you always want to think fully baked before you walk into the local people in some ways, which was contrary to how I thought it would work"

"People will often be willing to engage in a discussion about major projects, what they're often concerned about is, in some ways, is smaller scale impacts, but nonetheless are very significant to them, so people do understand, often, that we need major infrastructure, but they find it quite difficult to cope with the traffic, the noise, the dust, the poor lighting, that kind of thing. So often, what we're thinking through is how there is a need for major things to happen, but that you build them in a very well controlled, managed way that minimises the impacts on other people and the impacts on the wider environment."

• **Consultees:** Statutory consultees are required to consider the implications of the proposals on a range of environmental and heritage assets. The need for detail may mean a later involvement in the process and they may not engage until the details of the design or routes are clearer so that they can consider any specific **issues related to this siting.** Some statutory consultees reported that earlier engagement was better because although the specific locations may not be known they would have more power to influence them as the scheme developed.

"Certainly in terms of early engagement, trying to understand what the project is to be able to make some meaningful engagement in terms of what are the parameters then for a DCO in terms of what kind of requirements would be included in it, so that's where, from our perspective anyway, the more detail there is upfront about the nature of the application, they more likely it is to be able to do an assessment of the impact on the significance of the heritage assets, for us then to say 'yes, that's fine as is,' or 'actually, we just need to have some parameters down there to make sure that it's not adversely affected."

"Stakeholder resourcing is really important for the sector, for us as a developer, for the stakeholders themselves and particularly on the environmental side, the SNCBs under the DEFRA family have seen huge cuts to resourcing and are increasingly asked to comment on huge projects, complicated projects, new technologies and where they are, the things that work for us in terms of statutory timeframes, or prescriptive requirements. It's important that they have, not just the kind of like bums on desks, but also the right sort of level of expertise and experience as well. We have concerns over their levels of staff turnover, experience and expertise and that learning from previous projects".

- Landowners: The requirements for increased detail may relate to
 - the use of their land;
 - o the specific **location** of development within the designated site;
 - o the **impact** on neighbouring activities on their land
 - access to parts of their land that may be cut off during the period of working
 - o effects on land drainage
 - maintaining access to their land overall
 - difficulties that may arise when construction compounds are started
 - location of soil movement, borrow pits and dumps that can affect adjoining land
 - a lack of detail of scheme staging and delivery may mean that it is not possible to identify when land is **required or acquired**, with associated payment, by the promoter whether for a Compulsory Acquisition or a temporary use.

Landowners also work through their own land agents and typically this is not a group that works in concert with each other and information may not be shared between them

- **Examiners** may also ask for:
 - details of schemes and construction details if they consider that the issues have **not been appropriately raised** by other parties during the examination

 detail when they take the view that that those appearing in the examination are not sufficiently aware of the likely issues that will emerge during the development and therefore spend time examining these issues to ensure that they have been fully discussed

"Sometimes, we find detail, but in hearings, the public, or even the local authority, will say 'oh, thanks for identifying that 'cos we didn't realise that was missing' and yes, we do need that detail... In a couple of cases I've dealt with, not knowing the implications of the CA requirements and how's it all going to work and what's the timing and what's the land take, so in that way, you are acting on behalf of the public".

"We hold the ring between the international investors and the environmental groups and yes, we sit in the middle and yes, we do ask lots of difficult questions, but in the end, that's what we're here to do and also, I think the other issue is people shouldn't get too upset, we give people a pretty rough time at examination sometimes, but it's only because we're actually trying to sort out something which, if we don't sort it out, they'll only end up in a mess with it afterwards."

- Agreements between the promoter and specific parties: to progress matters, these might include
 - o the layout of carparks or parking:
 - o access for **vehicles** into the site;
 - methods of working;
 - other matters that might be more appropriately left to the construction phases of the NSIP; and
 - more detailed matters may be agreed much earlier to reduce the risk of failing to achieve a DCO and cause later inflexibilities in implementation

Consequences of detail

There is a widely-held view amongst promoters and their advisers that the level of detail in the process is problematic and some feel there have been increasing issues around this. They find this problematic because it

- causes uncertainty during the process
- can create extra cost if additional requests for information or new studies must be undertaken
- can stifle innovation in construction and hinder the opportunity to take advantage of technical developments which may occur over the long timescale of implementing an NSIP

"I've got an issue at the moment where the limits of deviation, for this particular structure, are reasonably narrow and the contractor at the moment is saying 'oh well, I just need to be able to put down a bit of extra fill and I can bring a crane in and do it this way' and I'm saying 'well yeah, that would be great, but you're the wrong side of the DCO line, so actually, you can't do that and now they're struggling how to actually build it within that red line and I'm sure that red line is in that location for a very good reason, it might come back to what you were taking about, about more wider compensation in terms of not being able to justify the DCO stage, taking that bit of land for a wider amount"

"Some of the Park and Rides, we really fixed the level of detail in terms of the layout of the actual car parking itself, which you think is fine, but actually, when your contactors come on board and say the roads not wide enough, or they need to put different lighting schemes in, actually, you do need to go through the change process because everything's so fixed and actually, does it really make a difference, how we were to lay out our car park when it's not a public facility, it's just for our construction workers"

Reasons why requirements for more detail are emerging

There may be several factors driving detail in the system:

- reducing levels of detail in submitted schemes: Some of those we interviewed suggested that the early NSIP submissions into the system, when it was first established, were more developed. They had been through previous consenting regimes in part before entering the NSIP regime and were 'oven ready' projects, unlike those that have been through the process more recently. Further, certain types of NSIP project require a DCO before they can enter an auction for an energy licence and may be less developed as the process is uncertain.
- **Environmental assessment practice:** It is also commonly understood that the requirements of environmental assessments drive the need for detail and NSIP promoters and their advisers are taking a 'belt and braces' approach to the environmental assessment;
- Risk averse practices: risk averse approaches to these processes are tending to accumulate and incorporate all the experience of pre-application discussions and examinations on all the preceding NSIP projects. This was specifically fed by the risk averse approaches of the promoters and their advisers and may not be required in practice;
- Avoiding later requests for detail: detailed studies are being commissioned as a means of avoiding requests for more detailed work later in the examination process
- Community, land owners and statutory consultees all need detail in or to evaluate the proposal. The examining authority may seek detail to ensure the issues from these interests in the process are fully investigated.
- **Statutory consultees:** learning from the processes and each other, statutory consultees are coming to the view that their early engagement and specification of detail at this point can bring a better outcome. They would prefer to do this rather than take the opportunity to raise issues at a later stage. This is not the case with all statutory consultees but it is emerging as a growing practice.
- Requirement for flexibility for delivery: a requirement for flexibility
 means more detail being supplied at the outset and this is a consequence of
 an examination of the whole project not just a focus on the intermediate
 stage of achieving a DCO. This may lead to more detail being required at the
 outset of the process of application to achieve more flexibility later. This
 detail can provide confidence to all parties engaged in the process including
 the Examining Authority, statutory consultees, local authorities and
 landowners;
- Compulsory Acquisition: requirements of Compulsory Acquisition of land processes that must be examined fully although many promoters were seeking to achieve agreements with landowners outside these Compulsory Acquisition processes in practice.

Some promoters have schemes which are very well developed and with a great deal of certainty over construction and hence are happy to provide higher levels of detail to implement projects more quickly.

Where there is less evidence of greater requirements for detail

There does not appear to be much evidence that more detail is being required at the pre-application stage of the process:

- The community might be given some information about the general nature of development, but their request for more detail may come through the examination when they are raising issues directly or are having their interest investigated by the examining authority;
- **Local authorities** are preparing local impact studies but these seem to be reflecting on the details that are already provided rather than seeking more. This may also relate to the relatively small role that these impact statements appear to be serving in the process.
- Promoters and constructors there appear to be few demands for detail coming from promoters or their constructors to ensure that specific aspects of the scheme are safeguarded in the process or that codes are incorporated into the requirements to provide support for constructability later. In those projects with a project management capability throughout the process, then these issues are more likely to be incorporated in a systematic way but there is no evidence that they are driving detail at this initial stage.

Where are request for more detail emerging in examination?

The Examining Authority may require more detail for the following reasons:

- Proper consideration: to ensure that issues have been properly considered and see more detail in terms of design, siting or construction requirements to be able to do this
- **Specific issues emerging:** There may also be requirements for further environmental impact assessments at this stage if specific issues emerge. Some of the promoters and their advisers suggested that where they had taken more than one project through an NSIP process, then they had a greater understanding of where more detail was likely to be required and this was then factored into subsequent applications.
- **Community**: In some cases, examiners thought that the community had not been sufficiently aware of the potential impacts of the scheme and sought to investigate these issues of their behalf.
- **Landowners:** those subject to Compulsory Acquisition also need detail at this stage and the Examining Authority will want reassurance that their interests have been considered and the necessary Human Rights tests met.

"There was one in particular that we argued for a couple of hours about at the examination; what would happen to a car parking space that one household lost and it would go into a 24-hour car park and it was a question about insurance cover and you think 'crikey, that's a lot of detail for a £4 billion project that could perhaps be resolved at a later date"

Understanding the need for detail

Once issues have been raised in the examination, promoters frequently attempt to achieve agreements so that they are not potential risks to the award of the

DCO. This may mean agreeing details of some aspects of the scheme to meet the needs of specific stakeholders or communities and promoters, but may cause problems in construction later in the process.

There is an increasing view that more detail at the front end of the project in terms of design and construction methods may reduce the need to undertake these individual agreements in the examination phase. Another approach is to ensure that the role of codes in the delivery of the project – for design, construction and sustainability – including their contents, how they will be used and who will discharge them is another means of reducing the need to undertake these specific side deals during the examination. Overall there was a recognition that on balance, flexibility was often required in some ways to enable to project to be deliverable practically and **the price of flexibility was the need to offer more detail** to enable that (for example a flexible approach will require an Envelope Assessment in the EIA, which is more complex and detailed).

5. Is there a need for more flexibility?

The second main purpose of the research was to investigate the need for flexibility in the DCO process, particularly in the implementation and construction phase after the DCO has been approved. At the February 2016 NIPA roundtable, it was recognised that there is some flexibility in the process, but the view was expressed that the level required was absent overall and that this is causing problems, particularly in the construction phase of projects.

"Focusing on the construction element is really important, but that's actually where people start to get most anxious and where most flexibility is required, especially because you might not have the contractors you're going to build it involved, so local people want to know what you're going to do and you can advise, based on the advisors that you have at that time, what they would do in building it and where the lorries would go and so on, but that's the bit that's most likely to change."

Why is flexibility needed?

There were several rationales put forward for the need for flexibility including:

- **commercial necessity** for projects like Rail Freight Interchanges where the end users of associated development such as warehouses are not known at the time of consent.
- **rapid technological change** in relation to what is being built (particularly in the energy sector) which must be allowed for when coming to construct schemes years later (given the long timescales for many NSIPs), and that there can be changes in construction industry technology as to how the project is being built which need to be allowed for (and can sometimes reduce impacts).
- **to deliver more cost effectively**: contractors may find more efficient and effective ways of delivering a project that will not be possible unless there is either flexibility in the DCO or that the Order can be amended;
- to deliver in ways that are better for affected communities: as
 constructors develop their working methods for projects, they may find
 ways of operating that are more beneficial and less disruptive for the
 affected communities which cannot be applied without either flexibility or
 amendments to the DCO.

Where is there a lack of flexibility in the NSIP process?

The lack of flexibility identified was in several key stages in the process

• **drafting the Development Consent Order (DCO):** Flexibility can be incorporated into a DCO using mechanisms such as

- limits of deviation;
- allowing detailed design to be agreed post-consent under governance put in place through the requirements;
- o through provisions allowing for the **temporary use of land**; and
- the use of **alternative options** in the DCO, for example over the routing of a cable.

"It's interesting, if an examining authority's presented with a figure, so we want to go to a depth of three metres, I have been known to ask 'do you mean three metres?' and if I'm told 'yes, we mean three metres,' then the consent will be for three metres, not up to three metres, not approximately three metres, or not three metres with these limits of deviation... if you offer it, you'll get tied to it."

"Quite a lot of efficiencies and the big money is going to be the same as in construction and those only made come when the contractors get involved and the contractor's knowledge is changing ... they get their knowledge through experience from the last scheme, so there could be things that aren't even there now, which parameters set up in applications and decisions about what needs to be fixed could actually fetter that and that's got real implications for building a safer scheme, building a more efficient scheme and building a scheme that also delivers on our environmental KPIs"

- **delivery and construction**: Once the DCO has been approved, it is fixed although it is possible to request material and non-material amendments to the consent.
 - At the time of the research no **material** amendments had been sought;
 - The **non-material** amendments should be determined by the relevant Secretary of State within a guideline period of six weeks;
 - There is **no statutory time limit** for these decisions and some have taken many months;
 - This open-ended part of the process is at odds with the culture and performance of the rest of the NSIP regime, where each phase of the process is set within specific time frames;
 - This creates uncertainties within an overall project management approach;
 - In the light of this, promoters would frequently prefer not to request any changes or to use the Town and Country Planning Act instead, using further planning applications, where this is appropriate and possible (which is for associated development to the NSIP but not the main NSIP itself).

"You go out to tender and say you want the best contractors and you want innovation, creativity to deliver better value, then you put this massive straightjacket on people and say 'but you have to operate within this.'"

"We had an example, it's quite a small thing, but it was the use of a certain type of piling was mentioned in one of the Code of Construction Practice, which there's actually a better solution for a quieter option, but we can't use it because it's actually specified the type we will use"

• **discharge of requirements:** The process for the discharge of requirements is set out in the DCO and could be through the local authority

or the Secretary of State. There may also be other issues related to statutory consultees who may also have a role in discharging requirements. The discharging process can be managed through a **Planning Performance Agreement** (PPA), determined as part of the DCO. Some promoters take the view that this approach may be risky particularly where local authorities have been opposed to the development and not all local authorities have PPAs, and may therefore be short of resources to undertake these tasks, hence risking further delay in the process.

"It's not unusual at all for circumstances to change. Let's say, for example, something emerges on the natural environmental side, which means that there needs to be a change which has a knock on impact on the historic environment, or a technical solution has been found which means that the road, or the road to bridges doesn't have to be built in that way, so that's quite common"

"This planning performance agreement, that you can enter into because we all acknowledge that local authorities are short on resource and I think when you approach them with something so big - the DCO - which is extremely involved, they maybe sometimes can struggle to deal with this and you've got to try and help them out."

- Use of environmental envelopes: the envelope approach to environmental assessment defines the wider frame within which the development will be situated with the final location being determined through subsequent stages in the process. This approach is also taken in 'Not Environmentally Worse Than' (NEWT) assessments. The environmental envelope can be very useful tool of flexibility but there are also associated issues with its use:
 - promoters may wish to draw a wide envelope to create maximum flexibility but this may make other parts of the assessment difficult and it may need to be reduced;
 - where there are adjacent sites that are likely to be developed for similar projects, there may be an **unintended consequence** of a cumulative impact that may reduce the potential for further development.
 - the envelope may be an issue where there are Compulsory Acquisition powers as part of the DCO. This may mean that the flexibility is too wide for the necessary ECHR tests to be met. This may also affect temporary use of land for working sites during the construction process.

Flexibility in practice

The **DCO** provides a staging post in the delivery of the NSIP. If the mechanisms for change following the granting of a DCO were time limited, giving certainty in their use, then flexibility may be easier to achieve. However, under the current system, scheme promoters and their advisers are responsible for the consideration of their needs for flexibility for delivery from the outset and throughout the NSIP process.

The issues about lack of flexibility may relate to **lack of focus** on this issue at the front end of the process including pre-application and examination and the drafting of the DCO. As a Statutory Instrument its form is fixed which means that a failure

to consider constructability and deliverability as a core component leaves the flexibility requirement to be **bolted on at a later stage** through material or non-material changes or the use of other planning consents (where possible). For those NSIP projects **where this has been less of a problem**, there has been a greater detail in the design of the scheme and/or the use of codes of design, construction and sustainability.

Flexibility in an NSIP project is most required at the point of construction and delivery. If it has not been considered in the appropriate way until after the DCO has been agreed then there will be many potential issues related to constriction methods, mitigation and operational delivery. Many of these can be **accommodated within the DCO** if they are part of the focus of the process from pre-application to DCO drafting and approval.

The nature and legal form of the DCO is not flexible so it is important to consider ways that the necessary flexibility to achieve better delivery, costs improvements, more sustainable outcomes and innovation are incorporated into NSIP projects. **Overlooking the necessary requirements for flexibility** in construction and delivery within the DCO process will cause additional delay and cost later in the process.

"Quite a lot of efficiencies and the big money is going to be the same as in construction and those only made come when the contractors get involved and the contractor's knowledge is changing ... they get their knowledge through experience from the last scheme, so there could be things that aren't even there now, which parameters set up in applications and decisions about what needs to be fixed could actually fetter that and that's got real implications for building a safer scheme, building a more efficient scheme and building a scheme that also delivers on our environmental KPIs"

The focus on flexibility for NSIP delivery

The focus on flexibility should be incorporated at several points in the NSIP process and, given what we have found in this research, we are of the view that combining many of these approaches in an **aggregated incremental approach** can have a significant benefit to the available flexibility for project delivery and include:

- maintaining a focus on the delivery and constructability of the project
 throughout the entire process. This is the responsibility of the promoter and
 their advisers but it is also important that this is recognised and reinforced
 in appropriate ways by those who own the process or who have formal roles
 within it. The purpose of the NSIP process is to improve delivery of
 infrastructure projects not to have DCOs that cause difficulties later
- **using project management:** Some promoters have adopted a consistent approach to the project throughout the whole of its development and implementation using a project management capacity from the outset. The Project management function is recommended as best practice by the National Audit Office and the Major Projects Association and the role of the project managers will be to ensure that the focus is on the entire process including delivery throughout. They will be considering:
 - the implications of requirements,
 - o design and construction procurement
 - o meeting mitigation
 - o community issues

- Early contractor involvement (ECI): If the construction team is part of the project from the outset then this makes the design and detailed operational issues easier to include in the project processes. This is not the case for all projects not least including those that are being developed to obtain operating licenses. However, for some promoters of multiple schemes, this is becoming a more frequent way of working. There was some discussion amongst participants in the research about potential conflict of interest for constructers in public sector projects but there was also a view expressed that these can be managed appropriately. Another view was that ECI added to the costs of the project and that this funding would be lost if the project is not successful in achieving a DCO
- Consider establishing a Special Purpose Vehicle (SPV) One means of achieving an integrated approach between promoter and constructor is through the creation of an SPV. This has approach been used before in major infrastructure projects such as the Public-Private Partnership for the Second Severn Crossing.

"The contractors come in, they've got brilliant ideas for saving millions of pounds - that's their innovation - but then, if we'd known that when we were drafting the DCO, we could have perhaps built in a bit more flexibility, but we just didn't ... without contractors, you don't have those big ideas."

- The role of Examination process: If there are any potential issues that the Examining Authority is concerned to address in relation to delivery and construction of the NSIP project they can investigate those issues now through the exercise of existing powers. We have not been advised of any examination where this has been an issue for consideration although there have been a number where the details of construction working have been discussed at length and detailed requirements included in the DCO. While these issues are important, particularly for communities living close to the project and associated development sites, this is not the same as considering the whole issue of construction.
- The role of the Examining Authority: While there is no provision to require any Examining Authority to review these issues as part of their hearings, it would also be helpful if the issues raised in this research about the difficulties created for delivery and construction by lack of flexibility were kept in mind. This would also influence the agreements that are made during the margins of the examination and create a balance in the desire to agree a scheme that will obtain a DCO and a scheme that can be built readily with the DCO in place.
- The drafting of the DCO: This is a central issue when considering the flexibility of NSIP projects. Some projects have had far fewer problems than others with flexibility. This is an issue that would benefit from more consideration and review. While there is advice from PINS on how to draft a DCO, the deliverability and constructability are not necessarily to the fore as a primary objective. There may be more focus on:
 - the environmental issues and mitigation for example of the operational hours of the construction phase;
 - In some cases, details of construction methods have been included within the DCO without these having been finalised with the appointed contractor or the relevant costing of specific methods;

- While attempting to secure some certainty for the community or statutory consultees, it may obstruct the application of more community focus or more cost-effective methods later;
- It may be practicable to specifically consider these issues when the DCO is drafted and amended by the examiners and the relevant Secretary of State.

"As design has evolved, based on better information on ground condition, those kinds of things, or better information on contamination, you then have to change your design, but you've only got the flexibility of what the DCO allows"

• Using a hybrid approach to the DCO: We have also found that it is already possible for DCOs to be hybrid, where the scheme is set out with some detail but using a variety of methods to allow later flexibility in construction including standardised and industry recognised codes. However, we also found that some promoters and advisers were anxious about this approach and assumed that it would be problematic and not acceptable to PINS or the Examiners. It might be of some value to identify which NSIPs have been more hybrid in their approach so that these could be discussed and shared amongst the promoter and advisory community. In one case, the promoter provided the examiners with two versions of the DCO where there was incomplete determination of issues at the end of the Examination period.

6. The role of detail and flexibility in deliverability

While there are benefits of the front-loaded process, there is some evidence that the focus on the decision on the DCO is being financially incentivised through adviser fees. This is an unintended consequence of the system and is leading to a rise in cumulative detail and mitigates against a broader focus on deliverability.

"We got our lawyers to advise us what we needed to do and we did it on the basis of increasing the certainty of getting a DCO because if we went through all that process, the downside was if we didn't get it and we had another 18 months to go through it all again, so Certainty and flexibility in the Planning Act process obviously, you're not going to do anything that risked, you're going to be risk averse in terms of what you put in."

What we have found

Shared learning is piecemeal and could be improved. There appears to be little shared learning between promoters about the period after the DCO is obtained and the move into delivery and construction. This means that the DCOs and their drafting remain variable in their ability to support deliverability.

Statutory time limits for non-material changes to DCOs would improve flexibility. As the DCO is a Statutory Instrument, it is fixed and any changes need to be considered through a formal process which requires the approval of the relevant Secretary of State. Where this is a non-material change, then this may be applied for although unlike the rest of the system there is no statutory timescale for its approval. As the rest of the NSIP system operates through specific time limits, this is creating operations and cultural difficulties at the end of the process, and some promoters are using the Town and Country Planning process to allow changes to associated development rather than risk the uncertainty of the DCO amendment process.

The lack of detail and early constructor engagement means that constructability may only be considered after the DCO has been agreed and is driving the need for more flexibility. This may include detail about construction that subsequent constructors wish to change to improve working methods, costs or innovation.

More flexibility requires more detail in the NSIP proposal. The price of flexibility is sometimes more detail in the preparation of the scheme before submission.

Community engagement should be meaningful in the NSIP process. The system is centrally concerned with managing local impacts associated with nationally needed infrastructure. This means that there must be engagement at the appropriate times and that any feedback has a chance to influence projects. We found that practices were variable between promoters. Some of the engagement appeared to take an engineering / technical approach of "we will work out the best solution" which reflects practice in planning twenty years ago. This means that much engagement is through public meetings rather than through true engagement. Deliberative fora, that are facilitated by independent people could be held. In France, the national infrastructure system engages a preliminary deliberative approach and then a public auditor is appointed to ensure that issues raised in consultation are addressed through the consenting and delivery process. Local authorities have a role in quality assuring the consultation that is undertaken in the pre-application process and they may need to take a more active role in assessing the quality of this and they may need to specifically address whether the points raised in consultation have been addressed in the proposal.

DCO drafting is significant in achieving flexibility. If the DCO has been drafted to include the ability to include the tolerance of some flexibility using codes for design, construction and environmental issues then these will be more helpful to this delivery phase;

Adhering to an inflexible DCO can be more expensive, reduce opportunities for innovation and improvements in delivery for the environment and communities. As post-consent amendments are considered difficult to achieve, promoters are instructing their constructors to abide by the DCO as written, which can be problematic if it does not incorporate sufficient flexibility.

"I think everybody tries to make them non-material and schemes have lived with what they were given as detail, probably to the detriment of the scheme, rather than take the time and risk the process of going through the material changes process. In other words, it's a poorer scheme for it, or a more costly scheme for it, or a more time delayed scheme, or whatever it is."

"It's a matter of fact that if you don't get it in the DCO, or in the document that is certified by the DCO; then there's no way of controlling it after that and so, all the time, you come back to 'is this secured in the DCO somewhere?' and so some of the detail, which is important, is sometimes not secured in the DCO and you know, with the Rochdale envelope, which is another relevant point, all the time you're trying to see whether they've tested the worst case scenario, so you need detail to do that sort of thing".

Planning Performance agreements are critical to the discharge of requirements. These requirements will be set out in the DCO as will their method of being discharged, this is frequently by the local authority which would normally have a Planning Performance Agreement with the promoter. Through this, in return for payment from the promoter, the local authority will agree to discharge

the conditions within guaranteed timescales. We found some local authorities that did not have a PPA in practice and wondered if would be possible to institute one outside the DCO to assist the promoter and the local authorities.

The NSIP system would benefit from greater local authority engagement. Some promoters do not use local authorities to discharge requirements, particularly those involving highways where there is a preference for the Secretary of State to undertake this role. Some promoters would prefer to avoid using the local authority, particularly where there have been some political objections to the development and this may cause problems of trust. It was suggested to us that a greater involvement of the local authority at the pre-application phase would improve the working relationships and engage local politicians in a more formal way. The local authority's statement on the proposed development could also be foregrounded more in the process rather than being regarded as a formality.

The role of local authorities has emerged as being rather peripheral and uncertain in the process of obtaining a DCO. While some larger local authorities, with experience of several NSIPs, have been able to establish an experienced team and provide advice to other authorities, some have little experience and may only be concerned with a small section of a major scheme for a pipeline, tunnel, or road. When multiple local authorities are involved in one scheme, this causes concern for the promoter but it is also difficult for the individual authority that will probably have to spend a disproportionate time understanding the whole scheme in comparison with the impact within their own area.

"I think local authorities do drive a desire for greater levels of detail. I think it's a nervousness about understanding the project, it's a nervousness around not being the determining authority and as a result, it's an opportunity to exercise control".

Local authorities also have a role in the pre-application processes. Firstly, they should agree that the public consultation on the proposed scheme undertaken by the promotor is adequate and meaningful. Secondly, they are invited to submit a local impact report on the proposed development. This is an opportunity for local authorities to become more engaged although they may not feel much encouragement to do so as their impact reports appear to be seldom mentioned. Giving more recognition to these through referencing them in the process may give local authorities more stake in the development and help wider engagement in the process.

The resourcing of public sector bodies involved in the system is critical to their engagement. The resourcing of the public sector bodies involved in the NSIP process – local authorities, statutory consultees, central government departments and PINS itself – was raised as an issue of concern by several interviewees. Reduced levels of resource due to Austerity cuts in all parts of the public service was being felt, and in PINS resourcing was made more complicated by the way the service is reliant on Examination fees which can vary greatly year-to-year. This financial picture and its consequences in terms of staffing could impact the ability to understand and deal with flexibility, for example a flexible scheme can require more work to understand the environmental assessment and how the scheme meet the required tests during examination and for discharging the requirements post-consent.

"Stakeholder resourcing is really important for the sector, for us as a developer, for the stakeholders themselves and particularly on the environmental side, the SNCBs under the DEFRA family have seen huge cuts to resourcing and are increasingly asked to comment on huge projects, complicated projects, new technologies and where they are, the things that work for us in terms of statutory timeframes, or prescriptive requirements. It's important that they have, not just the kind of like bums on desks, but also the right sort of level of expertise and experience as well. We have concerns over their levels of staff turnover, experience and expertise and that learning from previous projects".

"The civil service has been under extreme pressure, the planning inspectorate are part of the civil service and it is a highly professionalised area and an expert body, the planning inspectorate is an expert body and any reduction in that professional resource has risks that then drive pre-prescribed behaviours and following precautionary practice, rather than unique, professional thinking and innovation and consideration from a base of experience and practice which informs that. I think that's an increasing risk area, that by its nature, therefore, drives precautionary behaviour and detail is an easier route for those with less of a background and expertise."

The need for initial detail can be offset by the use of more consultation in the construction phase. Where requirements are being used to manage the detailed design, the management of construction and to set the approach to the development then there is a good argument that these should be subject to local consultation. There may be other issues on hours of working and siting of working compounds. If these approaches are agreed early in the development of the NSIP and included within the DCO they may reduce the need for more scheme detail at the outset as there will be greater public confidence in their later engagement and in the transparency of these processes.

There is a low level of cross-industry understanding of the impact discharge of requirements on construction. Even minor changes in how requirements are framed can have large implications for construction (for example 'no work can start' as opposed to 'no work at this site can start') as well as the process, time and resource implications of how they are discharged.

"Where I would be interested, genuinely, I would be interested in feedback is whether we're as good at framing some of our requirements as we could be, or whether there are practical elements to the framing of our requirements which are easier or more difficult to handle... I think that's an area that is difficult for us because although there have always been planning conditions, it's obviously because of the strength of the power of a DCO, we don't yet know fully ... there are some which have been built, but they were generally the more straightforward projects, it's because we're getting into the more complex projects that I think some of this feedback is occurring"

Overall there was less understanding and experience of the NSIP during its delivery phase. This this needs further consideration and attention. While the DCO may have some indication of its deliverability such as through consents for compulsory acquisition and hours of working, the purpose of the DCO process is to achieve a completed scheme not a Parliamentary Order. There seems some evidence that the focus on the front part of the process can be crowding out the issues related to the delivery of the project. There has been an unintended shift in the balance within the process that reflects the number of schemes that have

achieved a DCO but not the growing number of schemes now in their implementation phase.

7. What did we learn from the case studies?

In addition to the background desk research, interviews, focus groups and roundtable discussion on the system in general, we undertook a detailed review of the DCO and related documentation, site visits and a further 13 interviews and 1 focus group in relation to two specific case study NSIPs: the Galloper Offshore Windfarm and the A14 Cambridge to Huntingdon Improvement Scheme. These were selected as both projects are under construction (allowing any issues on the change from consenting to construction phases to emerge) and because highways and energy generation are the two largest sectors in terms of the number of DCOs to date.

Galloper Offshore Windfarm

Background

The Galloper offshore wind farm involves construction of an offshore wind farm generating station some 27km from the Suffolk coast and associated electrical connection and onshore substation at Sizewell, Suffolk. It was the first large offshore windfarm to go through the Planning Act 2008 system with a DCO application made on 21 November 2011 and granted on 24 May 2013. The original project was for a development of up to 140 wind turbines generating up to 540 MW. Construction work commenced in June 2014, but due to financial issues, the project was paused in 2015 before resuming with a target completion date of March 2018. The DCO has changed hands from the original consent.

The windfarm is located next to the existing Greater Gabbard offshore wind farm (consented before the 2008 Act regime) and there appears to have been good engagement between the promoter and the local authorities. The offshore turbines are not visible from the coast as they are over the horizon and there were few concerns expressed from the local community about the onshore works beyond a few issues about short term traffic impacts during construction.

What did we find about detail?

All stakeholders reported that they found that much information was required in very little time during the examination, and that the make-up of the Examining Authority could influence how proceedings went. Much of the examination focussed on ornithology issues, although there were also some concerns about ensuring no interference from the cable connectors with the neighbouring Sizewell nuclear power station and around the landscaping of the sub-station given it was

in an Area of Outstanding Natural Beauty. This all drove detail, but this was perceived by interviewees to be understandable and 'legitimate'. There was some concern expressed, however, about the volume of information required for the 27 volume Environmental Statement and that because of a lack of clarity as to what was required in it, there was a tendency to put in extra information and detail as the promoter was keen to get consent.

What did we find about flexibility?

A great deal of flexibility was built into the consent of this project. The assessment envelope ('Rochdale Envelope') was utilised offshore and onshore. There were some limits of deviation on the cable route. There was a menu of solutions presented to the Secretary of State for predicated mortality of birds with a worst-case scenario modelled. The DCO wording itself allows for considerable flexibility, for example "up to 140 wind turbine generators", turbine heights shall not "exceed a height of 195 metres" and with the turbines to be located in a broad area of sea defined by coordinates.

The requirements of the DCO are used to govern the flexibility provided. They provide for design parameters for the offshore wind turbines to be approved in detail trough the Secretary of State post-consent and for the detailed design of the onshore sub-station and its landscaping to be approved by the local planning authority and Natural England post-consent (but before construction starting). The requirements also include an Ecological Management Plan and Code of Construction plan.

This flexibility was regarded as essential to the deliverability of the project, particularly given the rapid advances in offshore wind farm technology where over just a few years the normal turbine generation power has changed from 2 MW to 6 MW and where rapid advances has been made in the design of foundations and construction methods (for example, reducing noise). The flexibility has also helped to manage more mundane matters such as the fact that it is difficult to know three years before construction exactly what vessels will be available to charter for construction.

"Offshore wind is at the outer edge of the level of flexibility that you could reasonably expect because you are saying 'there's a large area of sea, I don't want to commit to the precise number of turbines, I want up to x. ... there are some offshore wind farms where the site is very tight and that really does largely dictate what it's going to look like, but then Galloper was a relatively generous site. The DCO that we have ended up with meant that that scheme could have looked ... there were quite a lot of layout variations that were credible within that and I think that was very helpful to the project, it enables the design to be optimised in terms of energy yield that goes directly to ... well firstly, the amount of electricity that you're generating and also to the business case in a sector that's being subsidised and needs to improve its business case wherever it possibly can.'"

Delivery in practice

Since the DCO was granted, the project has changed promoter and has been scaled back to 'optimise the business case'. The result was the offshore wind farm will now be 340 MW (the consent allows for up to 504 MW) and as a result, the sub-station needed is smaller. As the changed design was partly outside the 'red line boundaries' of the DCO, the new sub-station was approved instead through a

planning application made to Suffolk Coastal District Council under the Town and Country Planning Act which was felt to be quicker and cheaper than trying to amend the DCO.

"Onshore, it involved a major change to the substation arrangement, so we had to consider whether to use the amendment regime, or whether there was an alternative and the alternative that we chose to use ... and so instead of going down the amendment route with all the risks and the timings attached to that, we were able to craft a TCPA application, which dove tailed with the DCO."

There has also, however, been a non-material amendment made to the original DCO. This was applied for on 27 January 2015 and granted on 2 July 2015 (22 weeks later), and changed the wording of the requirement than "Each monopile foundation forming part of the authorised development shall not have a diameter greater than 7 metres" to be "7.5 metres". It was suggested to us that when the promoter was first going for consent, engineering advice was that 6 metres would be sufficient so some flexibility had been built-in by consenting up to 7 metres, but that technological development had been rapid and bigger turbines need bigger monopile foundations. The non-material amendment was apparently critical to making the scheme financially viable and had it not been granted, the project would have collapsed.

"The second amendment order was to allow a larger mono pile and that came about because the only way we can make the numbers work was to put a bigger turbine on it, the only way to put a bigger turbine on it was to put a bigger model pile on it. Without that then, there would be no project ... but it did take quite a lot of time, effort and uncertainty within the project as to whether that would ever get through or not, at the time... We had lots of engineering advice through preapplication and lots of different things, that actually, you find out in real life, isn't the way because things move on, things change all the time, people have different ideas, different engineers have different thoughts about how things should be done, so the flexibility is key"

The discharge of requirements has apparently gone well, although there have been some suggestions that the local planning authority has a weaker hand at this stage of the process and no Planning Performance Agreement is in place for this project. There needs to be careful thought on framing requirements at the consent stage, aided by thinking ahead about construction in terms of work packages.

Overall

This project demonstrated how flexibility could be incorporated into the system but also that even with flexibility, change on projects of this scale can be amendments are needed to a DCO hence the need for a proportionate approach to agreeing post-consent amendments. The use of the Town and Country Planning application process to amend the sub-station (associated development) provides further evidence about promoter concerns about the DCO amendment process. The consistency and continuity of the project team from pre-app to construction is also seen here.

A14 Cambridge to Huntingdon Improvement Scheme

Background

The A14 Cambridge to Huntingdon Improvement scheme involves the upgrading and construction of new highway on a 23-mile length of the A14 between

Cambridge and Huntingdon and the widening of a 2 mile stretch of the A1, as well as the modification and improvement of the associated local road network within this corridor. It is the largest highways scheme in England for twenty years. The DCO application was made on 31 December 2014 and was granted on 11 May 2016. The project is currently under construction with a target for completion of 2020.

The project is important for sub-regional growth and to improve quality of life in Huntingdon (with the removal of concrete viaducts adjacent to the town centre) and so had political support from Cambridgeshire County Council and the three district councils involved. These authorities worked together to produce a joint impact report which was viewed as effective. There were apparently, however, difficulties for the promoter engaging some statutory consultees pre-application and concerns about staffing levels having impacted this.

Community engagement

There were diverging views about the pre-application community engagement on this project. We were told of many adjustments that were made to the scheme because of public engagement and that different Parish Councils had requested things which were sometimes in direct conflict with each other, making it hard to resolve them. However, several local groups felt that there had not been adequate assessment of strategic alternatives to the project and that the promoter was 'going through the motions' rather than engaging meaningfully.

"I thought that was quite positive, we got the feeling it did help to steer the inclusion of new stuff in the DCO plans, but that's when it stopped, they said 'we've done it now, we've given you our best compromise' and that, I think, was the frustration, that there was no ongoing [dialogue]"

At examination, many changes were made to the draft DCO. This was suggested both as a response to engagement and trying to address concerns such as traffic modelling raised by local authorities but also because of the apparent difficulties engaging some statutory consultees and land owners in pre-application discussion. There were some suggestions that the pre-application stage felt rushed, leaving many issues to be sorted out at examination and that some of the issues at examination could have been avoided had the promoter been more responsive pre-application to concerns from land owners and local communities over issues like traffic modelling, flood modelling, noise and air quality and archaeological work.

What did we find about detail?

Levels of detail in the consent were apparently driven by environmental information and compulsory acquisition (particularly around the book of reference and the General Vesting Declaration process associated with land acquisition). Landowners were keen for higher levels of detail, particularly around issues like field drainage. Local communities wanted greater detail about issues like air pollution, monitoring (rather than just modelling) noise and noise control and landscaping. Local authorities wanted more detail about issues like borrow pit restoration.

"This particular scheme is on a very fast delivery programme, for the size of the scheme at least, and the balance between the amount of detail prior to the hearing stage and, in some ways, the

rigid nature of the legal position of the DCO that's granted, in having to develop that design within those constraints, that's, potentially, led to the difficulties all round."

What did we find about flexibility?

Flexibility was built into the scheme, with the use of limits of deviation (for example the authorised development can deviate vertically from the levels ... shown on the engineering section drawings to a maximum of 0.5 metres upwards or downwards") supported by a 'Rochdale Envelope' assessment and provisions for the temporary use of land. The detailed design is being done post-consent, governed through the requirements (with the number of requirements having doubled over the course of the examination).

Delivery in practice

The detailed design post-consent allows flexibility for contractors, e.g. on the viaduct over the Great Ouse, which would be difficult pre-application without a contractor appointed. Furthermore, preliminary design costs are apparently about 3% of construction costs, so £30 million for a scheme like this, but detailed design will then cost at least as much again. There is some nervousness about committing that much to a scheme before it gets consent and a feeling it is not necessary to have a full design down to the level of road signs and hedgerow plating before consent. It was suggested, however, that without detailed design, engagement with landowners and communities can be made harder.

The requirements for this project, which incorporate a Code of Construction Practice and Local Environmental Management Plans, are being signed-off by the Secretary of State rather than local planning authorities due to concerns about levels of resource and expertise. There is a public register of requirements and provisions for continued public involvement over issues like the detailed landscaping and construction management plans.

There have, apparently, already been some concerns from contractors over issues relating to compound layouts and how tightly the red line boundaries have been drawn. This can stifle opportunities to develop the design. The scheme is deliverable with the DCO as consented, however where contractors suggest improvements the promoter is looking at things like planning applications for associated development or approaching landowners directly to agree additional land take on a basis of a 10:1 multiplier of additional costs versus savings constructing the project.

"There are a number of outcomes from the hearings and within the consent letter and report ... but when it comes back down to what was approved within that process, it stifles, perhaps, the opportunities to introduce further innovation and development of the design when strictly controlled by things such as the red line boundary of the application."

The discharge of requirements on a project this scale is resource intensive and now the project is under construction, the exact wording is proving to be very important (for example the difference between a phrasing such as 'no work can start before' and 'no work at location x can start before'). There is also a need to carefully consider the relationship between the requirements of the DCO and its protected provisions. Some concern has also been expressed about how closely

the discharge of requirements is being monitored, and the process for raising issues about this.

Overall

The project illustrates the amount of input and resource required for all parties to engage with a scheme of this scale (particularly given the tight six-month examination period), the challenges around land acquisition and temporary provision in the DCO process, the drivers for more detail that can occur in the DCO and its requirements, the costs of detailed design, and concerns about meaningful community engagement (particularly over the divide between pre- and post-consent phases).

8. What would improve the NSIP system?

What would improve the NSIP system and give greater certainty to those using the process so that changes may be achieved in ways that beneficially support the implementation of any project? We have set these out as the following recommendations, based on our research findings on the role of flexibility and detail that will support investment, greater innovation and cost effectiveness in delivery. These recommendations reflect an approach to achieving this that provides appropriate protection for the affected landowners and communities. Together they comprise an **aggregation of marginal gains** that will improve the operation of the NSIP system and do not depend on any one recommendation being implemented to achieve beneficial improvements in the system for its users.

A. National Planning Policy, Legislation and Guidance

Recommendation 1 National Policy Statements should address deliverability

The role of the NSIP system is to deliver national infrastructure. There is more that could be done within the NPS to support this deliverability in practice. When the NPSs are reviewed, as they reach the five-year mark or subsequently, flexibility for each sector should be addressed to optimise deliverability. Taking a sectoral approach allows deliverability to be considered in ways appropriate to project size and type. The NPS should explain what might be suitable for outline principle consideration and what requires more detailed design, which can be addressed in any new NPS when drafted. This should be implemented by Government Departments as and when the NPS are reviewed and there should not be a period when the NPS is not available. This would then drive consideration of deliverability and flexibility appropriate to each sector during scheme preparation and examination.

Recommendation 2 Government guidance and advice on flexibility and deliverability should be brought together

The objective of the NSIP guidance and advice is to support the effective delivery of national infrastructure projects. Preparation of guidance and specifically on flexibility to support delivery and construction of NSIP projects, that would bring

together in one place what already exists to give these issues some focus in the process. While it is possible to see that there is guidance and advice on deliverability in the NSIP process it is set in several different documents and it does not have any central focus. It would be more useful for promoters and their advisers if the issues of delivery and construction could be specifically related to each stage of the process including pre-application, examination, in the drafting of the DCO and in the discharge of requirements.

Some further sense of the degree to which a DCO can be 'hybrid' between meeting the needs of those requiring detail and allowing flexibility to aid project implementation should be provided. This hybrid form acknowledges what can be confirmed in terms of detail, including some matters of design, environmental mitigation and construction while also indicating the areas where requirements (including use of appropriate codes) will need to be used to determine issues as the project moves though the construction phase.

The guidance should outline common approaches to flexibility (such as envelope assessments, Not Environmentally Worse Than approaches, limits of deviation, temporary use of land) and the suitability and implications of each (for example, need for more work on the environmental assessment for wider envelope assessments and the potential cumulative impacts of several DCOs all assessing a worst case scenario). It would be helpful if this work on new guidance could be undertaken as soon as is practicable. If there are potential delays, it would be helpful if DCLG and PINS could provide a signal that it is their intention to address this matter as a priority.

Recommendation 3

The Government should put non-material amendments into a statutory time frame to support NSIP flexibility and deliverability

Given that the process for requesting non-material amendments is out of step with the rest of the timed system, and that there has been considerable variation in practice, the Government should introduce a statutory timescale for the process for non-material amendments to consented DCOs. This may be longer than six weeks but would conform to the expectations created in NSIP regime overall. This would assist in the deliverability of projects, reduce uncertainty and cost.

B. Project Management and Early Contractor Involvement

Recommendation 4

Promoters should consider some form of Early Contractor Involvement (ECI) in the development and pre-application processes for their projects to address the need for detail and flexibility

While it is appreciated that ECI may add cost to the development of an NSIP project, we consider that should be seen in the totality of scheme cost and not just at the application phase. The benefits of ECI are for the promoter in terms of an increased ability to address subsequent requests for detail in the pre-application and examination stages where this can assist all parties in determining their views on the scheme. There should be the opportunity to learn from other NSIP projects that have gone through the process on the benefits and the costs overall of neglecting this engagement. It will also greatly assist in identifying

where flexibility in any project's delivery will be needed in the DCO and how best these later construction requirements can be reflected by all parties engaging in the process. ECI also provides a potential for promoters to be consistent in communicating and engaging with communities to ensure that requirements for flexibility and detail are understood.

This ECI may come in a number forms from consultancy advice to the establishment of SPV that includes the promoter and contractor from the outset. There is evidence that these joint forms have been successful and that some promoters are starting to incorporate pre -project contractor competition and engagement to enter the application process as a single team. This should support the provision of detail where it is required and identify where and how flexibility should be included in the DCO to deliver the scheme.

Recommendation 5

All promoters should appoint a project management capability for the whole project from the outset to ensure flexibility and deliverability are addressed as it progresses to operational completion

NSIP scheme promoters can protect their own interests to maintain flexibility throughout the delivery and construction phase if they appoint a project management capability with this express remit. Project management should be provided from the initial inception and scoping of the scheme, through preapplication, examination and implementation phases. While it is appreciated that the precise requirements of project management may change during this process, and may reflect the relative scale of the project, the promoter can be advised of the implications for the whole project when taking advice or making decisions that may have longer term implications for the project than initially anticipated. The project management function can also advise on when construction advice is best provided, ensure that stakeholder and statutory consultees are kept up to date through the project communication plan and provide a consistent focus during the life of the NSIP to delivery. Where projects are sold on, it is also recommended that the project management function is retained across the bridge of ownership.

C. Engagement with stakeholders and communities

Recommendation 6

Statutory consultees should engage at the pre-application phase and consider developing standards and advice to support delivery

While some statutory consultees do not consider that is worth engaging until the scheme has been developed to a certain point of detail, we are of the view that earlier engagement allows statutory consultees to influence design and the outcomes that would serve their interests best. This may require the promoters to provide more detail but will also allow more flexibility in delivery. While statutory consultees might find some aspects of flexibility hard to accept, given their responsibilities, it is helpful to promoters and their advisers to have some standards and advice that they can work within. Further, if the recommendations for ECI and project management are taken up, then statutory consultees will have a greater opportunity to engage meaningfully from the pre-applications stage. We found that some statutory consultees have their own version of PPAs and where

resources are tight, all statutory consultees may wish to consider introducing similar mechanisms to allow them to participate fully and in a timely manner

Recommendation 7

Promoters should engage in meaningful dialogue with the community to reflect their requirements for detail and support the required flexibility in delivery

It is important to ensure that the engagement with communities is meaningful and, where appropriate, the level of detail on the proposed scheme is adequate. Promoters need to understand this and engage in a genuinely productive dialogue about the relationship between detail and subsequent needs for flexibility. Where it is not possible to provide detail at an early stage, then mechanisms for future community engagement in the processes of design and construction should be clear. Discussions on the proposal can be made more transparent through 'you said, we did' approaches to responses so that the community can see how their views have been considered. It is also possible to have a more deliberative dialogue and engagement as part of the process rather than rely on conventional consultation methods. This is particularly important if more detailed design matters are being resolved through the framework of requirements post-consent. There may also need to be further consultation during these phases so it is important to maintain the dialogue with community groups and stakeholders.

Recommendation 8

To support flexibility, an independent person should be appointed to receive community questions and complaints during the delivery phase

This meaningful dialogue needs to continue following consent to ensure that the community can have a single point where it is possible to see the discharge of requirements and a contact if they have concerns about the contractors on site. Other schemes such as HS1 have appointed an independent person to act in this role and, given the scale of NSIP projects, this appears to be a sensible approach to maintain contact with communities during the development of the design and construction.

D. Pre-application assessment and documents

Recommendation 9

Promoters and their advisers should consider their approach to environmental assessment and consider a risk assessment of the potential outcome for achieving flexibility in the DCO

The process of environmental assessment required under the DCO regime is an important part of the process of understanding the impacts of a scheme and its mitigation, and has been described to us as a driver of detail but one which is legitimate and necessary. There is, however, some evidence that the approach to environmental assessment is one of sometimes unnecessary detail, for example to reflect the questions and issues addressed at previous examinations of other projects without any consideration of the needs of the specific project or the make up any Examining Authority.

The environmental assessments are always undertaken on a precautionary basis but we consider that this precaution should be applied to the specific scheme rather than to experience of previous schemes in a cumulative manner. There has also been concern expressed that sometimes a heavily risk averse approach has been taken as consultants have been focussed on (and incentivised around) gaining DCO consent rather than seeing the DCO as part of an overall process of project delivery.

The increasing scale of environmental assessments can both reduce transparency and make engagement by stakeholders, communities and other parties more difficult. Whilst there are critical issues which must be addressed by the Preliminary Environmental Information and Environmental Statements, promoters and their advisors should take care to ensure a proportionate approach to these and consider the link between the approach to environmental assessment and the final implementation of the NSIP.

E. The Development Consent Order

Recommendation 10 DCO drafting should address flexibility for deliverability as a core component

While all DCOs are necessarily bespoke, there are some which appear to have included greater degrees of flexibility that support the delivery and construction phases of NSIPs. We recommend that PINS review the advice on drafting of DCOs to bring flexibility and delivery to the foreground so that it is addressed more explicitly in DCOs. We further recommend that Examiners and Secretaries of State consider deliverability and constructability when they amend DCOs before they are approved. We also recommend that NIPA, on behalf of those involved in the NSIP process, should undertake a specific piece of work to examine the construction of DCOs. This should incorporate a focus on deliverability and construction phases, the flexibility that will allow this set within the context of all the other requirements included within the DCO.

Recommendation 11

To support flexibility of NSIP schemes in delivery and construction, careful consideration must be given to the framing of the DCO requirements. There is a need for greater cross-sectoral understanding of how requirements are worded, and how best to make use of the range of codes such as those for construction, design, sustainability and community engagement should be included within the DCO

If detailed design issues are being developed post-consent in a more flexible DCO, this will be governed by the requirements section of the DCO. It is frequent practice within the requirements of DCOs to make use of codes for design, construction and sustainability. However, these have not been used consistently of systematically. We believe a more uniform use of codes like the Code of Construction Practice could increase Examiner, local authority, statutory consultee and public confidence in them and thus support greater flexibility in the DCO, whilst protecting the interests of those affected by the scheme in delivery and use.

Although we are aware of the codes that are used now, we consider that these should not be a defined list, as new codes may emerge that would be useful to adopt. However, all codes used should be recognised as standards for the sector or activity concerned and should avoid being devised for any specific scheme. To support this, NIPA should host a cross-sectoral forum on requirements (including the use of codes) and work with PINS produce an advice note on this.

F. The Examination

Recommendation 12 Considering flexibility for deliverability during the examination

While Examiners are free to consider any matter during the examination, we recommend that they should assure themselves that deliverability and construction have been specifically considered and that any flexibility required to support this has been considered in the process and in the drafting of the DCO. Where Examiners are not satisfied that these issues have been sufficiently addressed, we would recommend that they consider having a specific session to consider these issues. The knowledge that this might be a possibility should ensure that promoters and advisers address these issues specifically and include deliverability and constructability in their risk assessment processes. This discussion could be supported by a statement on deliverability submitted by the promoter, which might then also explain and justify the flexibility incorporated in the scheme.

Recommendation 13 Reduce the amount of behind the scenes detailed negotiation during the examination phase by considering flexibility overall

While it is recognised that the time pressures during the examination are intense, the pressure to make many side arrangements and agreements during the process puts pressure on the individuals involved and excludes the community and sometimes other stakeholders. Having more detail at the outset by considering approaches and methods of constructability through ECI should mean that the project is more developed when it comes into the process and that these matters are already dealt with. At present, it appears that the compacted time scale is being used as a means of dealing with lack of certainty in project design and delivery and this could be managed better to everyone's benefit. There is some evidence that pressurised negotiation and agreement is leading to later restrictions on scheme flexibility and the need for amendment. If more detail is provided at an earlier stage, then agreements could be made in ways that do not restrict later flexibility.

G. Resourcing

Recommendation 14

Local authorities should have Planning Performance Agreements with the promoters from the outset to support requirements for detail and flexibility in delivery

Local authorities have several roles in the NSIP process. They are required to review and sign off the statement of consultation, to prepare a local impact report and, in many cases, discharge requirements. They can also act as promoters. While some local authorities are engaging well in the process, the role of local authorities need to be more overtly expressed to support the delivery of NSIPs. This was an initial commitment by the then Minister in Parliament when then the 2008 Planning Bill was being considered but it has not been as fully effected as might have been expected. Most local authorities need to be encouraged to fuller engagement at each stage of the process including assessment of community consultation and on its own impact report. It would also be helpful to support local authority engagement in the process if the statement of local impact was addressed more fully in the process rather than being considered only at preapplication phase. This might also assist in the confidence that promoters could have in local authorities discharging requirements and assessing compliance with codes that may have been set out in the DCO.

To ensure proper engagement in NSIPs the role of local authorities needs to be overtly recognised from the outset. While some arguments have been made that local authorities that have only a small element of any project crossing their area do not have to engage in the same way as those that are more critically impacted by a scheme, the legislation does not differentiate in this respect. All local authorities, regardless of the scale of the project in their area, are required to undertake the same assessments and while this remains the case they need to be supported to fulfil this duty in every respect. Support is already available from other local authorities with experience but in all cases, there will be additional cost which will need to be found to undertake this task in a meaningful and compliant way.

However, a major issue for local authorities is the scale of their available resources. Planning services have been one of the most severely cut in local authorities over the period since 2010. Where a local authority has a PPA this allows for their support to the local community during consultation, more resources to undertake their local impact statement and overall engagement in the process. This PPA could be extended to include resources and agreements for the discharge of requirements and codes if local authorities are designated as fulfilling that role in the DCO. As we are recommending the greater use of codes and requirements to support flexibility, then this will be an increasing issue and one that should be addressed as part of the improvement to flexibility. Local authority provision of more support to the community during consultation may reduce the requirements for detail while having more resources for local impact reports may improve local authority engagement in the entire process of delivery.

Where local authorities do not currently have PPAs for consented schemes, even where their portion of the overall scheme is small, there should be a recognition that this remains a continuing resource issue. To overcome this, there should be some provision for retrofitting PPAs to NSIPs, even at the delivery phase, to support a beneficial outcome for the promoter, the community and other stakeholders.

H. Continuous Learning and Dissemination

Recommendation 15

That PINS and NIPA should further review processes of the discharge of requirements as part of project flexibility

On behalf of these engaged in the NSIP system, NIPA should host a cross-sectoral forum to gain feedback on the discharge of requirements and the implications for discharging them including Planning Performance Agreements. This must include consideration for public accessibility of information as to who is responsible for discharging them, how this will be monitored and an adequate 24/7 system for the public to notify the promoter if any of these requirements (including any codes they may incorporate) appears to be broken or potentially undermined. The promoter should take responsibility for publicly reporting back their investigations and actions on these issues in a timely manner proportionate to the issue. Once NIPA has cross-sectoral feedback, it should then support PINS to produce an advice note.

Recommendation 16

NIPA should disseminate the learning from individual NSIP projects to improve practice in achieving flexibility to support deliverability

NIPA, on behalf of these engaged in the NSIP process, should hold a cross-sectoral forum to extract learning and disseminate this to the benefit of future projects, particularly on what has been learned once projects have been constructed and gone through the full consent to construction process.

Recommendation 17

NIPA should undertake more dissemination and training on the application of appropriate detail and flexibility in the delivery of NSIP projects

NIPA, on behalf of those engaged in the NSIP process, should disseminate what works and what doesn't work for the use of applicants, advisors, statutory consultees; training and pre-project support for those with little or no relevant DCO experience.

9. Who should be implementing these changes?

As the recommendations have set out, addressing increased flexibility in the NSIP process will be achieved by adjusting a range of practices within the current system. While some of our recommendations will require action on the part of government, most of the others can be addressed by promoters and their advisers. NIPA has a role in developing the understanding of project management and giving more practical weight to the consideration of whole projects rather than a focus on the DCO as the end of the process. NIPA also has a core role in the exchange of good practice and experience and can do more to provide systematic support to all those engaged in the delivery of NSIP projects through these means. All of those engaged in the NSIP process have a role to play in addressing flexibility to support delivery but this should not be at the expense of reducing the community's involvement throughout the whole of any project's delivery or adversely impacting the rights of affected landowners. This should be recognised as should the important and significant role of local authorities where these national projects are located.

The following table sets out where the suggested actions to progress the recommendations should be attributed. In some cases, this will need joint working to bring together those in particular sectors or with defined roles to examine the best way forward. For some actions, NIPA can act as a convenor for a range of other bodies, who may also act under their own power of initiative.

The responsibility for action on each recommendation is summarised below:

Recommendation	Lead
Recommendation 1	Central Government
National Policy Statements should address deliverability	
Recommendation 2	DCLG, PINS
Government guidance and advice on flexibility and deliverability should be brought together	
Recommendation 3	DCLG
The Government should put non-material amendments into a statutory time frame	

to support NSIP flexibility and	
deliverability Recommendation 4	Dramatara advisara
Promoters should consider some form of Early Contractor involvement (ECI) in the development and pre-application processes for their projects to both address the need for detail and flexibility	Promoters, advisers, MPA
Recommendation 5	Promoters, advisers,
All promoters should appoint a project management office for the whole project from the outset to ensure flexibility and deliverability are addressed as it progresses to operational completion	MPA, RTPI and other professional and sectoral bodies
Recommendation 6	Statutory consultees
Statutory consultees should engage at the pre-application phase and consider developing standards and advice to support delivery	
Recommendation 7	Promoters, advisers,
Promoters should engage in meaningful dialogue with the community to reflect their requirements for detail and support the required flexibility in delivery	local authorities
Recommendation 8	Promoters, advisers
To support flexibility, an independent person should be appointed to receive community questions and complaints during the delivery phase	
Recommendation 9	Promoters, advisers,
Promoters and their advisers should consider their approach to environmental assessment and consider a risk assessment of the potential outcome for achieving flexibility in the DCO	MPA, RTPI, RICS
Recommendation 10	Promoters, advisers
DCO drafting should address flexibility for deliverability as a core component	
Recommendation 11	Promoters, advisers,
To support flexibility of NSIP schemes in delivery and construction, careful consideration must be given to the framing of the DCO requirements. There is a need for greater cross-sectoral understanding of how requirements are worded, and how best to make use of the range of codes such as those for construction, design, sustainability and community engagement should be included within the DCO	PINS, Government Departments

Recommendation 12 PINS, NIPA (a	20.2
convener of c	
Considering nexibility for deliverability	
during the examination professional attachmical asset	
and groups),	
promoters, a	dvisers,
statutory con	
Recommendation 13 PINS, promot	,
Reduce the amount of behind the scenes advisers, state	•
detailed negotiation during the consultees, la	andowners
examination phase by considering	
flexibility overall	
Recommendation 14 Promoters, a	
Local authorities should have Planning local authorit	ies
Performance Agreements with the	
promoters from the outset to support	
requirements for detail and flexibility in	
delivery PINS and NIF	2Λ (26.2
convener of a	•
That PINS and NIPA should further review	
processes of the discharge of requirements as part of project flexibility	
and groups)	
Recommendation 16 NIPA togethe	r with
NIPA should disseminate the learning other bodies	
from individual NSIP projects to improve	
practice in achieving flexibility to support	
deliverability	
Recommendation 17 NIPA togethe	r with
NIPA should undertake more other bodies	
dissemination and training on the	
application of appropriate detail and	
flexibility in the delivery of NSIP projects	

Acknowledgements

We would like to thank the NIPA 'client group' of Keith Mitchell, Robbie Owen and Michael Wilks, and their consultant, Hannah Hickman, for their support and guidance for this research. We would like the thank their Member Steering Group (listed in our *Technical Report*) for their helpful feedback on the research topic and our emerging report and recommendations. Finally, we would like to thank all those who agreed to be interviewed or participate in a focus group for this research. For reasons of anonymity, all those we spoke to are not named in this report, however we were struck by how generous people were with their time and a real enthusiasm to help ensure the best possible system for consenting nationally significant infrastructure.

We are also grateful to Efstathia (Effie) Kostopoulou for all her hard work in supporting this research, particularly in arranging the interviews and focus groups, and Eileen Crotty for her expert and timely transcribing of all those interviews.

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 including the role of the British Irish Council and Devolution. Janice has held senior posts in local and central government, including as a Chief Executive and as a Director of Technical Services, was Head of the School of Planning and Landscape at Birmingham Polytechnic and on the ODA Planning Committee of the London 2012 Olympic Games. She was the main official between the local government division and other government departments for the then ODPM from 2003-2005. Janice is now a member of the Council of the National Infrastructure Planning Association (NIPA), a former trustee of the RTPI and the TCPA and was included in the Planning Power 100 for 2013. Since 2015, Janice has been a Built Environment Expert for Design Council/CABE specializing in infrastructure delivery. Since 2006, Janice has acted as a consultant and academic working particularly on infrastructure planning and public sector change. She has worked with Colin Buchanan/SKM, Capita Symonds and Mouchel and her clients have included local authorities in England and Scotland, the Department of Health, the Welsh Assembly Government, DoE Northern Ireland, DCLG, a regional local government association and the Planning Advisory Service. Janice has also given evidence to Parliamentary Select Committees. Janice is an adviser and major contributor to the RICS infrastructure web site for members. Janice teaches the management module for undergraduate students in BSP. Recent projects include research on the British Irish Council with Dr Ben Clifford (PI on this proposal); adviser and content contributor to RICS infrastructure website; planning advisor to group of authorities following their combined authority and devodeal submission; Design Council CABE design panel member for Thurrock and Waltham Forest. Her recent books are Modern Local Government (2008), Effective Practice in Spatial Planning (2010) and How Europe Shapes British Public Policy (2013), Leadership and management in Planning (2015), Infrastructure Delivery Planning - an effective practice approach (2016). Janice is also the author of blogs and notes on Brexit for the national Planning Forum, Planning Futures, Planning magazine, the RTPI and the London Society and she has recently published Beyond Brexit (2017) A recent article for Town and Country planning has discussed the return of the role of local authorities in the provision of housing. Janice and Ben have recently been awarded a research grant by the National Planning Forum and the RTPI to investigate these issues further.

Dr Ben Clifford BSc PhD PGCLTHE FRGS FHEA MCMI

Ben Clifford is 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 MSc 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. Whilst working at UCL, Ben has been PI and project manager for a research project 'Planning after Devolution -Convergence, Divergence and Policy Transfer', funded by Planning Exchange Foundation (charity) and is currently PI and project manager for a research project 'Freedom to Reuse Property: Assessing Fiscal and Community Impacts' looking at office to residential permitted development funded by the Royal Institution of Chartered Surveyors. Whilst a PhD student, at the Department of Geography, King's College London, Ben was seconded and employed as a civil servant for two month periods to provide policy advice around planning reform in the Department of Communities and Local Government (on local plans policy) and to the then Department for Business, Enterprise and Regulatory Reform (as a team member on the Killian Pretty Review, a review of the efficiency of the development management system in England). Ben has scholarly papers on British local authority planners, professionalism and performance targets' in *Planning*, *Practice* and Research (2016); representations of "urban' and 'rural' within historical and contemporary discourses opposing urban expansion in England in *Planning* Perspectives (2016); policy movement and spatial planning in post-devolution Britain and Ireland' in Planning Practice and Research and The Geographical Journal (2015); Reflections on Implementing Spatial Planning in England, 2004-2008 in Planning Practice and Research (2014); Local authority planners and perceptions of public participation in Great Britain in Local Environment (2013); British local authority practitioners, identity and reactions to public sector reform in Town Planning Review (2012); perceptions of planning and planners in the British Press in Town Planning Review (2006); and perceptions of development and the environment in the Scottish Geographical Journal (2005). Ben authored the book The Collaborating Planner? Practitioners in the Neoliberal Age published in 2013, which takes a detailed look at the role of frontline local authority planners in implementing reform.