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SPV MODEL FOR COMPETITION IN ONSHORE TRANSMISSION

Key Commercial Principles and Risk Allocation

June 2018

Key Commercial Principles and Risk Allocation

This document (Key Commercial Principles and Risk Allocation) is divided into:

- **Part A**, which provides an overview of the proposed delivery model and summarises the key assumptions underpinning the Delivery Agreement and the parties' main responsibilities; and

- **Part B**, which sets out the key commercial principles and risk allocation, listed thematically. The suggested risk allocation has drawn upon principles from a number of infrastructure delivery models including the PF2 model, the Ofgem consultation on the CATO model and Thames Tideway Tunnel.

PART A – Overview, key assumptions and division of responsibilities

Overview

Late Tender/DBFO model

The content of this document is predicated on an assumption that the Late Tender/DBFO model, developed in accordance with the CATO Consultation paper[1], will form the basis for the special purpose vehicle ("SPV") model.

Under this model competition is focused on delivering outputs. The Transmission Owner ("TO") will obtain planning and other specified major consents based on a design prepared by the TO. The procurement for the SPV will generally proceed once these are in place, although early stages of the procurement process (i.e. pre-qualification) may take place in parallel with the process for obtaining consents if there are programme/value for money ("VfM") benefits. This is so that there is a clear statement of desired outcomes to provide certainty for tenderers as to deliverables, but still provides an opportunity for the tenderer to add value by facilitating the markets' optimisation of the design and construction to meet those deliverables.

The SPV will assume responsibility for, and associated risk in, design, compliance with consents, obtaining additional necessary consents, securing finance, carrying out construction and maintaining the assets to be constructed by the SPV (including all ancillary works, spares etc. – the "transmission assets") for the prescribed service period, which will be shorter than the design life of the transmission assets.

During the development of these principles an informal market sounding exercise was undertaken to test developing thinking. Feedback from that exercise has been reflected in these commercial principles where considered appropriate. These principles are not intended to be exhaustive or a complete legal position for the proposed Delivery Agreement. They are, however, designed to help inform the overall commercial principles to be included in the detail of the Delivery Agreement. The commercial principles and proposed risk allocation set out in this document should be read in conjunction with the suggested regulatory adaptations in order to obtain an overall appreciation of the proposed risk allocation.

[1] https://www.ofgem.gov.uk/ofgem-publications/97176/ecitconsultationv6finalforpublication-pdf

Key Commercial Principles and Risk Allocation

The following table sets out an overview of the key responsibilities for each of the TO, the SPV and Ofgem during the various project stages.

Pre-Tender and Tender Phase Responsibilities		
The **TO's main responsibilities** will be to:	The **Bidders' main responsibilities** will be to:	**Ofgem's main responsibilities** will be to:
• develop, with oversight from Ofgem, the tender materials for procurement of the transmission assets; • carry out preliminary design (which will be adopted by the SPV) and develop the output specification for the transmission assets and maintenance requirements; • obtain the DCO/Section 37 consents (and other significant consents); • obtain third-party agreements with stakeholders and third parties to the extent necessary to facilitate the project; • identify and undertake assembly of land required to deliver the project; • appoint an organisation to fulfil the proposed Independent Technical Assessor or "ITA" role (see below); and • carry out the procurement for the SPV, with Ofgem oversight.	• submit a tender and, in doing so, conduct due diligence on the project, including design; and • secure suitable partners, subcontracting arrangements and financing to deliver the project.	• consult on, and implement licence modifications to give effect to, the SPV model; • consider the TO's tender materials for procurement of the transmission assets; and • oversee the procurement process - receive update reports from the TO on process and provide certain approvals where appropriate.

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Construction Phase Obligations		
The **TO's main responsibilities** will be to:	The **SPV's main responsibilities** will be to:	**Ofgem's main responsibilities** will be to:
• act as design authority during design development (including a design review process – for further on this please see below); and • act in the 'employer/client' role in project delivery (including payment to the SPV).	• identify, obtain and discharge consents (excluding those consents which are expressly the responsibility of/retained by the TO); • carry out detailed design in accordance with preliminary design and output specification set by the TO (and undertake diligence on, and adopt as its own, such preliminary design); • to liaise with stakeholders and enter into further asset protection or third party agreements unless and to the extent that any third party agreements are reserved for the TO; • comply with all consents and applicable guidance; • undertake construction; testing; and commissioning, to specified standards (together "Completion") of transmission assets; and • arrange and provide finance.	• regulate the TO in respect of the relevant project; and • consider certain claims/cost reopeners/adjustments pursuant to the TO Licence (final arbiter of decisions).
Note: this section does not set out the various parties' alignment obligations. More details of proposed alignment options are set out in the section Overview of Alignment Options on page 16.		

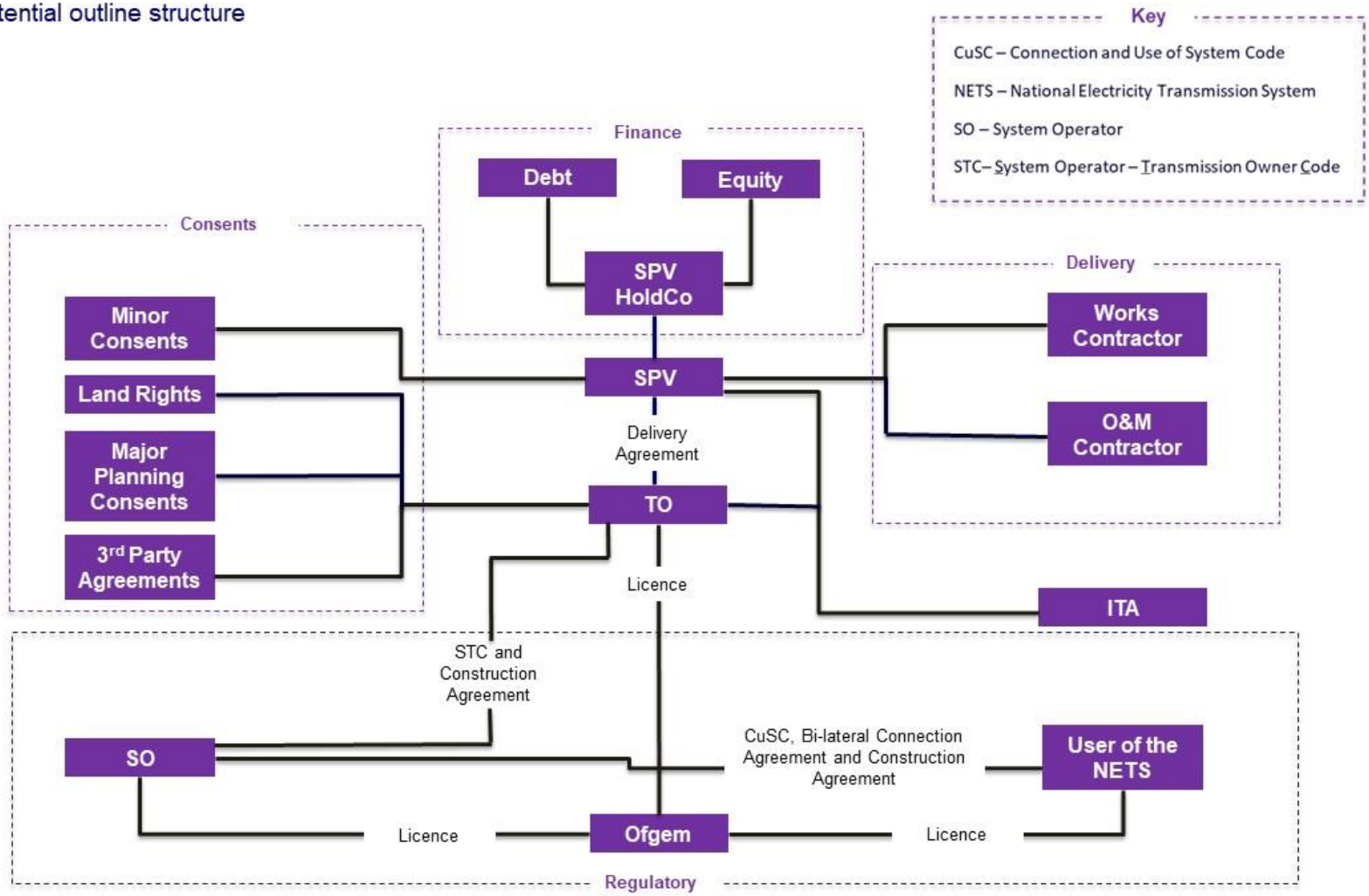
Key Commercial Principles and Risk Allocation

Service Period Obligations		
During the service period, the **TO's main responsibilities** will be to:	During the service period, the **SPV's main responsibilities** will be to:	During the service period, **Ofgem's main responsibilities** will be to:
• carry out its own obligations under the Delivery Agreement; • monitor the performance of the SPV and operate the payment mechanism; • make payments pursuant to the financial model; • step-in in certain circumstances of SPV failure (and certain termination scenarios); • approve/deny SPV requested changes and cost re-openers, subject to equivalent Ofgem approval; and • accept handback of the transmission assets at the expiry of the Delivery Agreement and operate and maintain those transmission assets for the remainder of their actual lifespan. Additionally, the TO will continue to carry out its business-as-usual obligations as the Transmission Licensee in respect of the transmission asset, namely it will:	• maintain the transmission assets in accordance with specified standards for the prescribed service period (see row 22 (Contract Duration) below); • report on the transmission assets (as required) to the TO; and • comply with handback terms to return the transmission assets in the specified condition at the expiry of the Delivery Agreement.	• regulate the TO in respect of the relevant project; and • consider certain claims/cost reopeners/adjustments pursuant to the TO Licence (final arbiter of decisions).

• be the owner and operator of transmission assets (and comply with associated regulatory obligations); • receive regulatory income in respect of the transmission asset (albeit through a separate building block in its Transmission Licence); • report to Ofgem in respect of the transmission assets; • be the counterparty to regulatory arrangements/codes including the STC; and • carry out ancillary works at interface points with its existing network - unless and to the extent that responsibility for these is included in the SPV obligations under the Delivery Agreement.		

Overview of SPV Model

Potential outline structure



Key Commercial Principles and Risk Allocation

Overview of the Delivery Model

Issue	Summary
Revenue stream with regulatory support	The SPV's revenue stream will be a payment from the TO. The TO will recover an SPV entitlement through its licence.
Regulatory Aspects	Allowed costs of the SPV pursuant to the Delivery Agreement payable by the TO will be funded by consumers via modifications to the relevant TO licence. This is not to say that all SPV costs will be a pass through via the TO to consumers. Rather the TO licence will be modified to include an additional building block (the "SPV entitlement") that is largely back to back with the revenue provisions of the Delivery Agreement between the TO and the SPV. Under this licence modification the TO will be entitled to claim costs under its licence in respect of: • the SPV's annual base revenue entitlement (which will be set in accordance with the outcome of the tender process); • the SPV's performance in respect of transmission asset availability (note this number may be positive or negative depending on whether a performance incentive or deduction is payable based on performance outturn); • agreed costs arising as a result of the uncertainty mechanism – i.e. agreed costs arising as a result of any of the following: o specified cost and output adjusting events (other than where such events arise as a result of a TO default); o certain specified pass through items; and o certain changes in law.

	• The SPV's entitlement in respect of the uncertainty mechanism is detailed more fully below and will largely be mirrored in the TO's licence modification. However, where: o cost and output adjusting events occur; and o the above events give rise to cost compensation; and o they do not relate to a failure of the TO to carry out its role and obligations or a TO change in scope that has been made without the consent of Ofgem, only then will such events give rise to a claim for revenue for the TO under its licence. • refinancing (note this part of the entitlement is likely to be negative and constitute a deduction from the SPV entitlement under the TO licence in scenarios where an adjustment needs to be made for an SPV refinancing gain); and • certain termination payment amounts (to the extent a termination event arises and gives rise to compensation which must be paid to the SPV and collected from consumers (as opposed to compensation amounts that may be collected as a result of the operation of the industry codes or a retendering of the project)).
Revenues based on tendered return	The SPV's revenue stream will be based upon its competitively tendered payment stream with certain elements subject to indexation (see row 15 in Part B).
Long-term contract	Long-term Delivery Agreement comprising a construction period plus service period (likely to be 25 years) - (see row 22 in Part B).

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Revenue stream during the construction period	The SPV may be entitled to a construction period revenue stream if one is considered necessary (particularly for projects with longer construction periods). Where revenue during the construction period is provided for, its quantum and what such revenue may be paid by reference to (e.g. milestones) will need to be carefully considered so as to not distort the incentive on the SPV to complete the transmission asset in a timely manner.
Stable revenue stream during the service period	The SPV's full revenue entitlement commences on Completion and continues to expiry (or earlier termination) of the Delivery Agreement. Revenue entitlement is subject to payment deductions and incentives.
Incentive to commission	The SPV has an incentive to achieve commissioning on time as failure to do so will result in a diminished service period.
Availability based payment regime and incentive regime with cap on downside risk and collar on upside	Availability based payment deductions for non-achievement of target availability. Deductions capped at a percentage of annual revenues. Capped upside incentives payable as credits for over-performance against target availability.
Regulatory support	The TO will be subject to licence conditions to comply with the Delivery Agreement and pass through TO revenues.
Security	The rights of the SPV to receive revenue (as well as other rights) under the Delivery Agreement may be assigned by way of security to financiers. It is also expected there will be a Direct Agreement between the TO and financiers. No asset security will be available to financiers as it is proposed that the TO and not the SPV will own the transmission assets.
Alignment Options	Alignment may be necessary to incentivise all parties to achieve a successful project. See page 16 below in this Part A for outline details of potential alignment options.

Independent technical assessor (ITA)	An ITA may be used to provide an impartial adviser to assist delivery and certify acceptance at the end of the construction phase. See below in this Part A for details of the proposed role of the ITA.

Key Commercial Principles and Risk Allocation

Overview of Delivery Agreement

Delivery Agreement Issue	Summary
Consents	To help manage risk and schedule, the TO will obtain the DCO/Section 37 consent and other specified key consents. The SPV will be obliged to comply with those consents and will be responsible for obtaining any other consents required to deliver the project.
Land	The TO will identify the parcels of land required to construct and operate the transmission assets, by reference to the preliminary design and will acquire the necessary land for the project (however it is recognised that there may some flexibility required here depending on overall timing).
Design	The TO will carry out preliminary design, which the SPV will adopt with no recourse to the TO (but potentially with warranties from the designer, subject to insurance and liability). The TO will also prepare the project's output specification. The SPV will be responsible for carrying out detailed design and then implementing that design to meet the output specification.
Construction Risks	The SPV will carry out the construction for a fixed price which will be modelled and flow into the availability payment. The actual construction costs are accordingly an SPV risk. The SPV will be responsible for managing all aspects of the construction and will report regularly to the TO on the status of the works. In some circumstances for particular types of construction risk, an alternative model may be suitable where elements of pricing may be on a capped or target cost basis. This is likely to be applicable where elements of construction risks do not lend themselves to value for money fixed cost pricing and where cost-reopeners are in

Key Commercial Principles and Risk Allocation

Delivery Agreement Issue	Summary
	themselves too uncertain. In such circumstances the Alignment Options and certain cost/risk elements would need to be tailored to ensure the SPV remains incentivised to preserve affordability and VfM.
Payments	The SPV's full revenue entitlement commences on Completion of commissioning and continues to expiry of the term of the Delivery Agreement subject to payment deductions and incentives. As noted on page 10, a limited quantum of revenue may become available during the construction period. Similarly, depending on nature of the commissioning of the transmission asset(s), it may be beneficial to consider phased Completion/revenue commencement.
Refinancing	Benefits of refinancing senior debt will be shared between the SPV and consumers.

Key Commercial Principles and Risk Allocation

Delivery Agreement Issue	Summary
Price Adjustments (covering change in law, compensation events etc.)	The general principle of the price model is that the SPV should take all, or defined, risks associated with the financing, construction and maintenance of the transmission asset and should price the assumption of these risks accordingly. There are 4 sets of events which are proposed as exceptions to the above principle: 1. specified cost and output adjusting events (uncontrollable events, which are not the fault of the SPV, that are not foreseeable and are low probability but high impact); 2. pass through costs (e.g. changes in business rates will be passed through fully, without deduction); 3. certain changes in law (e.g. (i) increases in costs which apply specifically to the project or to the contractor or to electricity transmission construction or maintenance; and (ii) service period general changes in law requiring capital expenditure); and 4. certain breaches of the Delivery Agreement by the TO. As noted on page 12, it is possible that certain elements of works may be of a nature where value can only be achieved using a target price approach. To the extent this is the case further changes to the Delivery Agreement's risk allocation and additional cost and price reopeners may be required.

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Delivery Agreement Issue	Summary
Handback	The Delivery Agreement should clearly set out the handback condition for the transmission assets and will provide for a robust process and criteria with a high degree of certainty for determining compliance with the handback conditions to provide clarity to the SPV concerning its obligations and to ensure the TO is able to carry on operations for the remainder of the transmission asset's life (and to price them in advance).
Termination	Termination rights will be developed on similar principles to PF2, so that the SPV and financiers have certainty as to the precise nature of the termination events, with appropriate opportunities to engage with the TO to resolve issues to prevent termination.
Compensation on Termination	This will follow broad PF2 principles, being that: • On SPV default (including insolvency), a re-tendering (to a liquid market) will establish the value of the Delivery Agreement, with the valuation paid by the successful bidder to the SPV; and • If required, on no-fault termination (e.g. Force Majeure /Uninsurability) the debt and breakage costs, plus equity investment (absent future returns) will be paid. One key difference to PF2, is that it is envisaged that TO payment default issues to be addressed via: (i) the credit standing requirement in the TO licence, and (ii) the enforcement of the requirement to comply with the Delivery Agreement (set out in the TO licence). In cases of TO insolvency, the energy administration regime is designed to ensure continuity so that the insolvency event is either rectified or the SPV has a replacement counterparty (with similar characteristics to that of the TO), and accordingly the Delivery Agreement would continue.

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Overview of Alignment Options

Some degree of alignment may help ensure the TO is engaged with the progress of the SPV's works, that stakeholder relationships are preserved and to enable both parties to share in the overall successful delivery of the relevant project. There are numerous means to effect alignment and this paper sets out two potential means to help achieve this: (i) the TO taking a minority equity interest in the SPV; and (ii) an Alliance model (operating in the construction period but also potentially in the service period).

TO Equity Interest

TO takes minority equity interest in the SPV at financial close (on a similar basis to PF2). The rights of the TO will be the usual rights commensurate with its equity interest although conflicts issues will need to be addressed in a shareholders' agreement.

Alliance Model

Upside only incentives by reference to an incentive pot comprised of an element of the savings realised through the use of the SPV model. Milestones for triggering incentives to be determined but may cover matters such as efficiency of design approval and construction related milestones. A summary of the Alliance Model is set out below.

Alliance Agreement	Summary
Parties	TO, SPV, Construction Contractor
Objective	Ensure alignment between the parties relating to overall project objectives (e.g. completion on time/budget) and alignment in relation to the manner of delivery.
Performance Incentive	To be determined, although the performance incentive may represent an element of the consumer saving from the SPV model. Incentives will be upside only.

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Alliance Agreement	Summary
	Milestones and KPIs to be agreed between the parties (and approved by Ofgem). ITA role to sign off achievement of milestones/KPIs.
Administration / Oversight	Alliance Board to be established potentially with Ofgem observer representation.

Overview of the Independent Technical Assessor

Independent Technical Assessor (ITA)
Duty of care to all parties - TO, SPV and Ofgem and reporting obligation to Ofgem. There may also be a duty to the financiers. Potentially having a role in: • agreeing between the TO and the SPV on the procedure and quantum of any permitted SPV revenue changes (and changes to the SPV entitlement under the TO licence) as a result of the price adjustment mechanism (including any reopeners) and advising Ofgem of the same; • advising on any changes to design; • confirming that the Completion tests have been passed (for the purposes of the Delivery Agreement) and reporting to Ofgem on Completion for the purposes of the TO Licence; • confirming satisfaction of milestones for purposes of Alliance Agreement (if used); • confirming satisfaction of construction milestones (if revenue is paid during construction, or more generally if there is a duty of care to financiers); and • assessing the annual performance of the SPV during service period to establish any availability payments and performance incentives/deductions. The ITA will be appointed jointly by the TO and the SPV. The arrangement will be funded by the SPV (who will be entitled to recover costs pursuant to its payment mechanism).

PART B – KEY COMMERCIAL PRINCIPLES/RISK ALLOCATION

In this section, the key commercial principles/risk allocation positions are set out thematically, so that related concepts can be considered side-by-side. The themes are:

1. Design & Construction
2. Payment & Financing
3. Service Period
4. Contract Commercial Structure/General Terms

Theme 1: Design & Construction	Proposed Approach	Explanatory Notes
1. Design Risk	In order to ensure an effective risk transfer of all delivery responsibility, the SPV will be required to take full design risk under the Delivery Agreement. Whilst preliminary design will be undertaken by the TO, the TO will novate the preliminary design contracts to the SPV (or procure warranties from the design consultant(s)) on award of the Delivery Agreement. The SPV will adopt that preliminary design as its own and carry out detailed design. In addition to the preliminary design, the TO will also provide an output specification designed to comply with the specified outputs set out in the TO's licence and all other applicable industry standards. This will form part of the Delivery Agreement, delivery of which will be the SPV's key obligation (even to the extent there are failings in the preliminary design). The specification of the output specification and its compliance with regulatory standards (to the extent it contains any design requirements) will remain a TO risk.	The SPV will be tasked to deliver outcomes required by the output specification and will develop a detailed design to meet those outcomes. The tenderers for the SPV will undertake due diligence on preliminary design work in order for it to adopt that design as its risk from award of the Delivery Agreement. The SPV will have no recourse to the TO in relation to the preliminary design. The TO will have a role in reviewing the SPV's detailed design as it is developed and will have the right to seek amendments in certain circumstances (for example where the design is not in accordance with the Delivery Agreement). This is on a "no liability" basis as design risk remains with the SPV. This process ensures that the TO and the SPV will both have a key role in developing a detailed design, with the benefit of TO experience and SPV innovation, to best ensure consumers' interests are protected. The design standard will be one of reasonable skill, care and diligence. However, meeting the output specification and

	Under the Delivery Agreement, it is expected that the TO will require the SPV's design to comply with relevant industry codes and standards (as well as project specific consents). As such, the risk of compliance with these obligations will be an SPV risk (however the TO will remain responsible for regulatory compliance under the relevant codes and licence obligations).	delivery of certain, other key design output requirements will, on a project by project basis, be absolute obligations. This position is dependent on the key design output requirements being expressed clearly and exhaustively by the TO. The TO will be responsible for discussing with Ofgem the boundaries of liability relating to interface and integration risks. Generally, the TO will be the integration authority especially where there are other works, projects and/or third parties involved.
2. Warranties for design/ information	While the TO will novate/grant certain rights to the SPV in respect of preliminary design work, the TO may retain a royalty-free licence to the intellectual property rights in the design so that (if necessary) it can be replicated on other projects for the benefit of consumers. The TO may also retain rights in relation to pre-novation breach/losses against the original preliminary designer. It is expected this will be achieved by means of a collateral warranty from the preliminary designer employed by the TO.	The TO may wish to take action against the designer in the event of certain events, (e.g. on SPV insolvency the TO may step-in), therefore retention of a direct cause of action against the designer protects consumers. The TO may also require recourse against the preliminary designers for any design work undertaken which informed the output specification.
3. Design Review	The review and approval process for design development and changes will follow these principles:	Delay is a key risk to the project which must be mitigated. For this reason, the TO will have a time-limited, approval mechanism. This will strike the correct balance between TO

	• The Delivery Agreement should give clear design principles e.g. designing for whole life operation and maintenance of the transmission assets. • The Delivery Agreement should give a clear scope of what does (and does not) require TO design approval (changes to any of the fixed specifications will certainly require approval and drawings/detailed design specifications in respect of certain key works may also require approval). Challenging but robust time periods will be put in place for TO review and comment to be set out in the Delivery Agreement. • Deemed approval may be appropriate if no (or no adequate) response is given by the TO within a given timetable. • Deadlock provisions will be included to resolve any dispute.	control, input of TO expertise, and the ability of the SPV to meet its construction programme. The design review regime will ensure that the requirements of the TO are balanced with the need to prevent delay and to give certainty to the SPV. There will be four potential responses to a request by the SPV to the TO to approve design submissions, developments and changes for specified types of reviewable design, being: • Approve; • Approve with comments; • Reject (on very limited, specified grounds e.g. breach of TO licence, breach of industry codes, breach of output specification, or a design proposal that would otherwise impact on the ability of the TO to run the Transmission Network or industry protocols). The TO must give reasons for rejection; and • no response, which will be a deemed approval after a prescribed period of time. The parties may refer any disputes as to the operation of the design review process to the dispute resolution procedure. This may include a role for the ITA, who could be used (as an *ad hoc* service) to review and advise on design submissions and design changes on behalf of all parties, to aid the approval process.

		Further details of the proposed role of the ITA are set out in Part A (Overview of Independent Technical Assessor).
4. Land Assembly	Land assembly (being identification of, and acquisition/access to, sites (whether on a temporary or permanent basis)) will be a TO responsibility and will be secured as part of the planning consent process. The TO will identify land required to fulfil the project. Any additional land required by the SPV (e.g. required to give effect to any additional works identified by the SPV) will be an SPV responsibility.	The SPV will be granted access to the sites on the conditions set out in the Delivery Agreement. In some cases, the SPV may also be required to enter into wayleaves or leases directly over the course of the Delivery Agreement.
5. Planning and consents risks	The TO will apply for, and obtain, the primary planning consent prior to the commencement of the Delivery Agreement, as well as certain (specified) major consents where there are cost/programme benefits to the TO obtaining them. Major consents will comprise of the primary consents from statutory authorities and those third-party agreements and land agreements necessary to remove objections to the planning consent. The TO will also be responsible for setting out clearly and exhaustively those consents which have been obtained and the commitments made to third parties at the point of award to the SPV so that there is a clear delineation. The establishment of a stakeholder engagement forum or similar will help ensure that the stakeholder relationships	As the TO will identify the project and conduct the procurement overall programme requirements would usually mean that the TO should undertake consent applications. At the point of signing the Delivery Agreement, the SPV will mobilise and take responsibility for complying with such consents. The SPV will manage the third-party stakeholder input once the Delivery Agreement has been signed, however the TO and SPV will need to ensure that there are effective collaboration mechanisms to help manage reputational and consent/other approvals.

	developed by the TO are effectively managed during the construction phase. Such a forum will help ensure the TO's reputation is preserved and that issues relating to consents and other approvals are effectively managed. The SPV will have responsibility for identifying and obtaining any further consents which are required (including those required under the primary consents – for example protective provisions or asset protection agreements, or further consents required as a consequence of the specifics of its detailed design) and compliance with them. Certain consents may in certain circumstances also require TO sign-off (as they may impact the wider nature of the Transmission Network) – where this is the case it will be appropriate for the TO to require reasonable rights of consent to the SPV agreeing such additional consents. The SPV will be required to discharge all consents (including those obtained by the TO).	
6. Liquidated Damages	The SPV will only achieve payment of full revenue once Completion has taken place. This is considered to be sufficient motivation for the SPV to deliver in accordance with the Delivery Agreement. The assumption is therefore that liquidated damages will not be required for late delivery unless: (1) the TO and Ofgem agree that they are both necessary to incentivise timely delivery and provide VfM; and/or	Liquidated damages for delay have not typically been included in industry connection and construction agreements (both between (i) the user and the NETSO; and (ii) the NETSO and the TO). It is important to ensure that, where liquidated damages are utilised, they reflect VfM and do not needlessly inflate the cost of capital, making the SPV model artificially expensive or unaffordable.

	(2) liquidated damages are included in the Construction Agreement between the relevant user and the National Electricity Transmission System Operator ("NETSO") and consequently in the construction agreement between the TO and the NETSO (under the STC) – in this scenario, it is assumed that liquidated damages should be reflected in the Delivery Agreement (on a suitably calibrated basis) and for the account of the SPV to the extent it is responsible for the delay. Ofgem will need to consider the VfM case of any such damages given the structural incentives on the SPV to complete on time.	
7. Liability and Indemnities	The compensation reflected by the express terms of the contract, including the deductions for unavailability, liquidated damages (to the extent included) and on termination will be the sole remedies of the TO against the SPV for breach of those express terms.	The inclusion of a sole remedy clause will give the SPV comfort as to the maximum potential liability under the Delivery Agreement. It may be appropriate to include an indemnity from the SPV against certain third-party liabilities which are not otherwise captured by the payment mechanism and deductions therefrom. However the scope of these indemnities will be defined and liability under them will generally be capped (to the extent not insured and covered by the limits of indemnity under insurance).
8. Construction Security	In order to protect delivery and minimise risk to both the TO and consumers, financiers will require a security package to be effected by the SPV's construction contractor.	A robust security package gives important comfort to financiers that the SPV and supply chain are sufficiently motivated to each deliver the project's stated aims. This, in turn, gives comfort to consumers that there is sufficient

		construction contractor financial exposure to ensure delivery. Whilst the levels of appropriate construction security will be determined by a number of factors (including the market and the nature of the construction risk) it is expected that the construction contractor would provide parent company guarantees (joint and several, in the case of a consortium), performance bonds and other security to support its performance obligations. In project finance transactions, bonding and related performance security is normally determined by the financiers, however typically it is set at between 10 and 20% of capital expenditure.
9. Construction cost overruns	In a fixed price delivery model the risk of construction cost overruns sits with the SPV, save where the overrun is caused by any particular risks wholly/partially retained by consumers (see price re-openers in rows 10a –d). It is possible that certain elements of works may be of a nature where value can only be achieved using a target price approach. To the extent this is the case further changes to the Delivery Agreement's risk allocation and additional cost and price reopeners may be required.	Fixed price contracts (with limited price-reopeners) allocate construction risks to the SPV, as the party best placed to price and manage that risk. It is recognised that certain risks may not be optimally allocated on a fixed price mechanism. The VfM for target price elements of the construction will be established as part of the development of the tender materials for the transmission assets.
10. Uncertainty Price reopeners	The general principle of the fixed price model is that the SPV should take all risks associated with the financing, design, construction and maintenance of the transmission asset and should price the assumption of these risks	A fixed price provides certainty for consumers and supports bankability. There are however certain risks which the SPV will not be able to price efficiently and, as such, would potentially result in poor value pricing. There may therefore

	accordingly. There are four sets of events which are proposed as exceptions to the above principle: 1. specified cost and output adjusting events; 2. pass through costs (e.g. changes in business rates); 3. certain changes in law; and. 4. certain breaches by the TO. As noted above, a target price approach to certain construction risks may be adopted for some aspects of the works. This approach would only be used in a scenario where consumers sharing in some cost overrun risks can be clearly demonstrated to be VfM.	be a VfM rationale for consumers sharing in these risks. Details are set out in rows 10(a) – (d) below. If a target price approach is used for certain construction risks (and this approach is agreed between the TO and Ofgem), then the contractual provision dealing with price reopeners will need to be revised accordingly to ensure a consistent risk/VfM position.
10 (a) Uncertainty Price Reopeners- **Cost and output adjusting events**	Cost and output adjusting events are certain specified events (agreed in advance by Ofgem) that: • are not the fault of either party and/or beyond their control; • are unforeseeable or, in certain circumstances, have a very low level of foreseeability (e.g. 1:20 weather events in a 3-year construction period); and • have a high impact. Where such an event delays commencement of the service period the original Delivery Agreement expiry date will be retained however the SPV will be compensated for its loss of revenue arising directly from the delay in accordance	A variety of approaches are identified in PF2, CATO, the Hinkley Seabank 'minded-to' consultation and OFTO build principles. While there will be a core list of cost and output adjusting events applicable to all projects, the scope of additional events will be agreed by Ofgem on a project specific basis. Only to the extent events are not within the control of the SPV will a revenue adjustment be made (or relief from deductions in respect of availability be granted) under the Delivery Agreement. Examples of relevant events to consider include typical force majeure events (as per PF2), extreme weather, (in certain

	with the terms of the Delivery Agreement. Compensation will be calculated to put the SPV in a 'no better; no worse' position. Where the event impacts availability in the service period, a similar compensation mechanism will operate (though price reopeners may differ between construction and the service period). Again, the SPV will be compensated for loss of revenue as a result of the event (and any availability deductions that might otherwise be levied will not be levied to the extent they are attributable to such an event). The exact nature of cost compensation available will depend on the specific cost and output adjusting event. In some cases, it might be the case that the SPV: - is compensated for costs arising from the event i.e. certain additional construction/maintenance costs; - is compensated for loss of time to the service period (or protected from availability deductions – see row 17 below); - is entitled to certain cost recovery (which may be subject to a sharing mechanism); and/or will be subject to a compensation threshold cap; and/or - is given relief from termination. The question of which of these remedies is appropriate will	instances) poor and unforeseeable ground conditions (the TO will have carried out initial ground conditions works and will need to consider how best to address this risk), TO changes in scope and/or wider network issues (for example emergency de-energisations (to the extent that this impacts on the availability mechanism applicable in the service period)). The relevant events will necessarily differ between the construction and service period. Where: - cost and output adjusting events occur; and - the above events give rise to cost compensation and/or relief from deductions (latter in the service period only); and - do not relate to the failure of the TO to fulfil its obligations, or a TO change in scope that has been made without the consent of Ofgem, such events should not just give rise to a claim in favour of the SPV against the TO under the Delivery Agreement but also a reciprocal claim for revenue for the TO under its licence (either as a claim for relief of a deduction or as a claim for additional revenue). Both the SPV and the TO will be comforted to the extent that

	depend on the nature of the risk/event and will be pre-determined as part of setting the Delivery Agreement. The relevant approach will be common across projects, but may have additional, project-specific adjustments where justified on VfM grounds. The proposed role of the ITA includes reporting to Ofgem on the occurrence and cost consequences of cost and output adjusting events, to enable Ofgem to determine the relief available.	decision making under the TO licence and the Delivery Agreement can be made reciprocal. However Ofgem will require oversight and ultimately approval in the event that additional revenues are passed through to the TO from consumers (with the ITA supporting Ofgem's determination).
10 (b) Uncertainty Price re-openers - Pass through items	The costs to the SPV of certain specified changes (e.g. business rates) will be passed through fully, without deduction.	As above, such pass-through events should not just give rise to a claim in favour of the SPV against the TO under the Delivery Agreement but also a reciprocal claim for revenue for the TO under its licence.
10 (c) Uncertainty Price Reopeners – Qualifying Change in Law	The cost of complying with legislation which is current or foreseeable at the time of the signature of the Delivery Agreement should be an SPV risk for which no compensation is available. However increases in costs arising from other changes in law which apply specifically to the project or to the contractor or to electricity transmission construction, operation or maintenance should be a pass-through cost. The risk of general changes in law occurring which involve capital expenditure will effectively be shared with the SPV	The PF2 approach means that the contractor does not bear the risk of discriminatory and specific changes in law which are not foreseeable at the time of entering into the Delivery Agreement, nor for general changes in law in the service period which involve capital expenditure above certain thresholds (although it will be responsible for any increase in operating expenditure).

	bearing the costs up to a minimum price threshold. Similarly, changes required by the TO (whether during the design/construction or during the service period (e.g. incremental investment)) may also result in a price-reopener.	
10 (d) Uncertainty Price Reopeners – default by the TO	The TO will have contractual obligations and breach of certain of these may lead to an adjustment of price, time or other relief.	To the extent the relevant cost and output adjusting event is due to the act, omission, breach or default of the TO, the TO will not be entitled to make a reciprocal claim under its licence.
11. Third Party Asset Holders	Prior to entering into the Delivery Agreement, the TO will commence identification of third party asset owners and will provide details to the SPV. The SPV will liaise with (and conclude that identification process) and then reach accommodation with those third parties, with this ultimately being a SPV risk. The SPV will be required to comply with relevant third-party agreements. The TO will be required, where reasonably requested by the SPV, to provide support/assistance in relation to existing third party agreements.	As the SPV is charged with delivering the project, it is best placed to engage on the precise detail of interface with third party asset owners (with TO assistance, if required). The SPV performing this role gives certainty to third parties as to who is responsible for the relevant works, and also avoids any confused messaging as the SPV will be best placed to communicate its needs.
12. Construction Completion	In order to ensure that there is certainty for both the TO and the SPV with regard to when service period (i.e. full) revenue commences, the Delivery Agreement should contain a clear and unambiguous definition of what is required to achieve Acceptance on Completion. Recourse	In order to reduce the risk of dispute, technical and legal input will be required to prepare objective criteria. It is proposed that the ITA (with a duty of care to the TO, the SPV and Ofgem) will certify that these tests have been passed and

	will need to be had to technical commissioning requirements in any ancillary industry documents (and relevant obligations flowed down to the Delivery Agreement).	the criteria have been satisfied. The standard of Completion will also have to be agreed by Ofgem as only when this is met will the TO be entitled to the SPV's full revenue pursuant to its licence.
Theme 2: **Payment and Financing**	**Proposed Approach**	**Explanatory Notes**
13. Payment commencement	As noted above, the SPV's full revenue will only commence following Completion. Revenue during construction (subject to limits on quantum and overall incentives to complete not being diluted) may be included. Where appropriate to do so, Completion (and associated revenue flow) may be structured and where an element of the service is available (rather than the whole).	It is considered that revenue during construction, if appropriately structured (e.g. to cover aspects of financing cost, but tied to meeting milestones in construction), and where it does not serve to distort overall incentives on the private sector to achieve Completion, can offer VfM. This is an issue that will need to be considered further to determine whether it can assist the cost of capital of the relevant project and whether it represents VfM for consumers.
14. Payment (time and cost)	Subject to those reopeners set out in row 10 (above), to the extent there are delays in achieving Completion by the planned date, it will result in the overall service period (and commencement of the SPV's full revenue entitlement) being reduced (and consequently the TO's operation and maintenance period post-handback being increased).	This structure reflects that payment for the transmission asset does not fully commence until Completion has taken place – though allowance will be given for time and cost in certain circumstances (see row 10 above). This mechanism incentivises the SPV to reach Completion on schedule.

15. Revenue Indexation	Certain aspects of the SPV's payment should be subject to annual indexation using appropriate indices where this offers VfM.	There is benefit in the actual costs of indexation of certain aspects of the SPV's revenue stream remaining with consumers. Examples of costs elements that lend themselves to indexation include staff costs and maintenance. A failure to offer indexation will result in inflation risk pricing being built in to the price, which is generally regarded as providing poor value for money. To the extent the SPV's revenue stream is indexed under the Delivery Agreement the TO's entitlement to revenue in respect of the SPV revenue entitlement should also be subject to indexation under the TO licence.
16. Refinancing	In the event that the SPV refinances senior debt it will be required to share refinancing gains with the TO under the terms of the Delivery Agreement which, in turn, will be passed on to consumers (via the TO licence). The refinancing sharing is proposed to be 50:50 of the net gain (with a greater proportion in favour of the consumer if financing margins on signing of the Delivery Agreement are considered to be reflective of a high-point in the market). The TO's reasonable management costs would be paid from any gross gain. Refinancing should be carried out with TO qualified consent.	The benefit from additional savings generated through better financing terms (which would usually be available once the project is operational) should be shared between the SPV and consumers. In granting the TO limited approval rights, in line with those given under PF2 contracts (with a right for the SPV to dispute if those rights are not correctly exercised), broader issues (such as any potential negative impact on the performance of the project which may arise as a consequence of any refinancing) can be considered.

Theme 3: Service Period	Proposed Approach	Explanatory Notes
17. Asset Availability	The required availability level of the transmission assets (c.98%) will be set out in the Delivery Agreement. A deduction is to be made where transmission asset availability falls below that base level in a year (such deduction capped at a percentage of annual base revenues, but with potential to carry over deductions to subsequent years). Similarly, capped upside incentives will be payable as credits for over-performance against target availability. Relief from deductions may be granted to the SPV where availability is negatively impacted by a cost and output adjusting event.	In line with many infrastructure projects, payments in the service period are availability based, subject to an annual cap and collar. The SPV's performance will be measured on the basis of availability of the SPV constructed transmission assets and not asset utilisation. The definition of "availability" may need to be adjusted and calibrated in respect of each individual project (as the interaction between the SPV constructed transmission assets and the TO's own assets/system may need to be taken into account). However it is proposed that the definition of "availability" should be calculated on the basis of reductions from the maximum possible transmission asset availability over each relevant reference period. The services to be provided by the SPV under its Delivery Agreement should include making available the constructed transmission assets such that they are fit for the purpose of conveying, or affecting the flow of, electricity (at the required capacity and in accordance with relevant industry documents and standards). Failure at any time to provide these services will result in a reduction from the maximum possible transmission asset availability (and therefore overall availability). To the extent certain cost and output adjusting events impact on the performance or availability of the

		transmission assets, they will not result in a deduction from the SPV's revenue stream. As above, the exact scope of these events (and the extent of relief provided upon their occurrence) will need to be considered on a project by project basis (see further row 10(a)).
18. Step-in	There are three main grounds on which the TO may step-in (on a temporary basis) to maintain the transmission asset. Where step-in is due to a SPV act, omission, breach or default, the TO will be entitled to its reasonable costs for stepping-in which will be met by the SPV. The likely step-in grounds will include: • health and safety concerns which are not adequately addressed by the SPV; • to safeguard the environment; or • to discharge its statutory function. These step-in rights are distinct from a termination which will result in a retendering of the right to perform the functions of the SPV and is discussed below in rows 25 and 27.	The step-in grounds should be considered distinct from a financier's right to step-in, or step-in rights which arise following breach or default. In essence, step-in rights are required to allow (or allow the threat of) the TO to step-in to remediate an urgent (but short-term) problem, particularly where the TO is in a better position to do this than the SPV. TO step-in rights should never be structured in such a way that the TO is obliged to step-in to 'assist' the SPV. Depending on the circumstances of the step-in (i.e. whether the SPV has breached the provisions of the Delivery Agreement resulting in the step-in action), some manner of compensation may be payable to the SPV. Step-in rights (if framed correctly) should provide TOs with greater confidence they are able to meet their licence and regulatory obligations.
19. TO potential for key spares sharing mechanism	Certain spares may be highly specialised, very expensive and/or have long lead-times. Therefore a joint holding of certain spares with the TO may be appropriate to reduce cost to the SPV and offer better VfM to consumers.	This is accepted practice in relation to specialist spares/maintenance equipment in relation to various infrastructure sectors, including the onshore and offshore gas industry and may be appropriate in this contractual framework, providing that suitable terms in relation to

	Title in such spares will vest in the TO.	access and cost can be agreed.
20. Handback	The Delivery Agreement must clearly set-out the handback condition for transfer of the transmission asset to the TO at its expiry. Provisions relating to handback condition should provide for a robust process and criteria with a high degree of certainty for determining compliance. An initial survey should be conducted for a minimum of a stipulated period of time (for example 24 months) prior to expiry of the Delivery Agreement to allow time for defects to be identified and rectified prior to expiry. Criteria for handback (amongst other things) must account for: • non-alignment of service period in the context of the economic and technical life of the transmission assets; and • contract performance against the maintenance requirements under the Delivery Agreement. Certain secondary assets may have a shorter economic life (e.g. SCADA systems, secondary generators, spares) and provisions for their replacement during the term of the Delivery Agreement will need to be included in addition to handback criteria reflecting their replacement.	The concept of a nil value handback is accepted risk allocation in the market. This principle should be augmented by lessons learnt from PFI deals currently approaching handback. The ITA (or a similar independent entity, in the event that the ITA appointment does not remain in place for the duration of the service period) should be used to ensure the handback criteria are applied impartially.

21. Reporting / information requirements /interface	It is suggested that, as a minimum, the reporting requirements of the SPV to the TO should be quarterly during the construction period and monthly during the service period. Reports would include performance against milestones in the construction period, costs of construction/performance of the service, cost reopener events, availability, refinancing and service failures. Reporting will be on an open-book basis.	Reporting mechanisms are standard for these types of contract. Timely, accurate reporting will be vital for the TO to meet its own statutory and licence obligations but should be balanced so as not to be too onerous on either party.

Theme 4: Contract Commercial Structure / General Terms	Proposed Approach	Explanatory Notes
22. Contract Duration	The Delivery Agreement should provide for a prescribed service period commencing on the later of: (i) the actual service commencement date; and (ii) the scheduled service commencement date, and expiring 25 years from the scheduled service commencement date (although this period may differ on a project-specific basis). This means that if there are delays in the construction period, there will be a day for day erosion of the service period (i.e. the period in which the SPV receives full revenue – though note also potential compensation described in row 10 above).	The length of the service period will be determined by Ofgem although it is anticipated to be circa 25 years. In determining the length of the service period, a balance needs to be struck between the following key factors: • onshore transmission assets typically have an economic and technical life beyond the expiry date anticipated under the Delivery Agreement; • operation and maintenance following expiry (and subsequent decommissioning) will be the responsibility of the TO; • if the service period is too short, it is likely to have an increased impact on consumer bills in the short term; and • the depth of the financing market for the proposed length of Delivery Agreement (and tenor of loan). At present no provision is made for rewarding early completion by the SPV as it is assumed that there is little value for consumers in the transmission asset being completed any earlier than the target completion date – to

		the extent this is not the case this should be considered further when a particular project is being developed.
23. Changes	A structured change mechanism should be included in the Delivery Agreement to ensure that procedures are established to make certain that where changes do arise VfM is achieved in relation to the costs of those changes. The methods of implementing change will be appropriate to the complexity of the relevant change. Where changes are agreed then revenue may be adjusted. It is currently considered that this would be dealt with as a cost and output adjusting event (as above – see row 10(a) but the full mechanism has yet to be developed). The TO would not be entitled to any additional revenue resulting from a change (irrespective of whether it had become due under the Delivery Agreement to the SPV) where Ofgem did not agree a change. The change mechanism will set out what level of changes require approval (i.e. there may be a level of change that is priced into the SPV revenue), the information to be provided to support the proposed change, and response times.	This position broadly reflects the change mechanism set out in PF2 guidance.
24. Change of ownership	Restrictions on change of ownership in the SPV will be incorporated to apply, particularly during the construction period. Such restrictions may be relaxed in the service	A balance needs to be struck to assist transferability of shareholding in the SPV for certain types of investors whilst also ensuring commitment to the project. Ordinarily investors are locked in (with some limited exceptions) until

	period.	the transmission assets are operational, then certain disposals may be made.
25. Termination	The Delivery Agreement should set out termination rights, on an exhaustive basis. Examples of termination rights include: • the SPV commits a breach which adversely and materially affects the performance of its services (in this case providing and maintaining transmission assets); • the SPV commits a persistent breach of its obligations; • an insolvency event arises in respect of the SPV or its holding company; • to the extent there are limitations in the Delivery Agreement on the replacement of certain sub-contractors, if these are breached they should give rise to potential for termination; • the SPV breaches the rule against assignment/transfer of its rights/obligations without consent; • the SPV commits fraud or corruption; • abandonment of construction works or repudiation of the Delivery Agreement by the SPV; • failure to achieve Completion by a prescribed longstop date; • failure to make the services available for a specified period;	The PF2 model has well-established provisions covering compensation on termination, which seeks to balance culpability as well as compensation for the value of the assets delivered. The key area of difference between the proposed approach when compared to PF2, concerns SPV termination rights against the TO (where the TO defaults in relation to its obligation (e.g. payment)). From a regulatory perspective it is proposed that the SPV can take comfort from the TOs being required: (a) in relation to financial standing, to use reasonable endeavours to maintain an investment grade rating; and (b) to comply with the Delivery Agreement, pursuant to the terms of their licences. Furthermore the energy administration regime is designed to ensure continuity so that any insolvency event is either rectified or, the SPV has a replacement counterparty (with similar characteristics to that of the TO).

	• accrued level of service deductions; and • failure to hold/maintain requisite insurances. In the case of most, but not all, of these termination events, an ability to remedy the failure on notice is usual. Termination rights for the extended force majeure events and uninsurability should also be included. The SPV itself is not, other than in respect of force majeure and uninsurability, considered to have any termination rights *per se*. TO termination rights will also apply on cancellation of a relevant generation asset (see row 27 for details of compensation).	
26. Direct Agreement	The exercise of termination rights will be subject to the rights of the Financiers under a direct agreement entered into between them and the TO. This agreement will inter alia afford the opportunity to the Financiers to step-in and remedy the events that have given rise to the termination right.	It is a standard feature of PF2 projects that Direct Agreements are entered into with the SPV financiers.
27. Compensation on termination	• On SPV Default (including insolvency), where there is a liquid market (being a circumstance where there are at least two willing economic operators who are capable of fulfilling the function of the SPV), a re-tendering of the Delivery Agreement will establish the market price of the Delivery Agreement, which is an indicator of the fair value of the Delivery Agreement. In the absence of	Where compensation is achieved in the market then no additional costs will need to be paid to the TO in respect of its SPV Entitlement. However where: (a) there is no liquid market; or

	a liquid market, a desk-top valuation of the unexpired term of the Delivery Agreement will be undertaken by an appointed expert. In either case, this sum (less TO costs) will be the SPV's compensation; and • On non-default termination (e.g. Force Majeure /Uninsurability) the debt and breakage costs, plus equity investment (absent future returns) will be paid. Termination may also arise as a result of cancellation of a generation asset (and cancellation of the Construction Agreement between the NETSO and the generator). In this scenario compensation to the SPV should reflect the cost of efficient work undertaken and break-costs. In the first instance this will be funded from regulatory compensation i.e. Cancellation Charges due from the generator and TO Final Sums due from the NETSO, though the adequacy of this compensation mechanic will need to be further considered. On TO default it is envisaged that compliance issues will be addressed via TO Licence credit standing requirement and delivery agreement licence compliance condition. In cases of TO insolvency given the operation of the Special Administration it is expected the Delivery Agreement to continue.	(b) there is non-default termination, then the TO will need to collect from consumers (pursuant to its licence) and pay to the SPV the relevant termination compensation. In order to ensure that breakage costs are reasonable, the SPV will be required to ensure that the construction contracts do not include loss of profit for early termination (i.e. work to date and demobilisation costs only).
28. Asset Ownership and financier security	The TO will retain ownership of the transmission assets. No security over the transmission assets will be permitted to be granted to financiers. Financiers may take security	Ownership of the transmission assets by the TO is appropriate to enable the TO to retain operational control and is in line with HSB and OFTO build principles. In contrast with CATO proposals, the SPV would be an unregulated

	over the shares in the SPV and/or the SPV contractual rights.	entity. This means that should the SPV have ownership of the transmission assets, Ofgem would not be able to protect transmission assets in the event of SPV insolvency or default nor to ensure their continuing operation.
29. Dispute Resolution	The Delivery Agreement should include dispute resolution procedures, which will provide for a tiered approach, being: • bilateral negotiations (senior management); • alternative dispute resolutions; • arbitration; and • where required, recourse to the courts.	The courts are generally regarded as being the forum of last resort for settling disputes. Accordingly, an alternative dispute resolution procedure may offer a more collaborative, efficient and cost-effective method of resolving issues.
30. Conditions Precedent	The Delivery Agreement should contain a number of conditions precedent which must be satisfied or waived before the Delivery Agreement becomes effective.	Confirmation will be required that a number of conditions are satisfied before the Delivery Agreement can have legal effect, such as opening of project accounts, placing of insurances, confirmation that there are no material liabilities which may impair the SPV's ability to discharge its obligations.
31. Key Sub-contract Controls	The TO will have oversight/control over placement of certain, key-subcontracts and their replacement. This control will be limited to the demonstration of suitable technical ability, issuance of warranties and competence and financial strength.	Although the SPV will be a new company, its shareholding and sub-contracting chain will have been assessed by the TO during the tender phase to ensure it has the necessary capabilities to discharge its obligations. This will mean that certain, essential sub-contractors (e.g. maintenance contractor) will be subject to approval by the TO in cases where such sub-contractors may be replaced.

32. Insurance and Uninsurability	The insurances to be placed by the SPV during the construction phase will include contractor's all risks, third party liability, environmental protection, delay in start-up, and business interruption insurances. During the service period, the SPV must take out insurances required by law and other insurances to cover losses caused by it. Key insurances will be placed by the SPV with the TO and financiers (to the extent relevant) co-insureds. The Delivery Agreement should also have a mechanism which deals with the unavailability of insurance where through market events insurances are no longer available or unavailable on reasonable terms.	Insurance is key to the SPV's risk management strategy. Careful consideration must be given to understand the level of cover required. In addition, in circumstances where insurance cover ceases to be available (through no fault of the SPV) uninsurability protection should be included in accordance with PF2 principles (i.e. consumers will need to act as insurers of last resort). See the proposal concerning non-default termination at row 27 (Compensation on Termination).