

PROPOSED REVENUE ADJUSTMENT SCHEME TO ADDRESS UNCERTAINTY IN ELECTRICITY TRANSMISSION INVESTMENT

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EXECUTIVE SUMMARY

- 1.1 This paper describes a proposed revenue adjustment scheme to address the uncertainty in electricity transmission infrastructure investment associated with connections for new generators.
- 1.2 The scheme has been designed to be consistent with the elements of the commercial and regulatory structure that have already been determined. In particular:
 - (a) The scheme does not affect, or purport to replace, the methods already used by transmission companies and by Ofgem to analyse whether particular investments are economically justified in the light of the Government's energy policy.
 - (b) The scheme operates independently from Ofgem's decisions about the structure of charges for connection to, and use of, the GB electricity transmission system.
 - (c) The scheme is consistent with the network planning processes established under the System Operator Transmission Owner code and does not require any reallocation of responsibilities.
 - (d) The scheme ensures the continuation of strong efficiency incentives, in keeping with Ofgem's policy of using five-year RPI-X price controls and only allowing actual costs to feed into revenue limits after a five-year rolling period.
- 1.3 The costs of expanding the transmission networks to accommodate renewable generation will be, by necessity, ultimately borne by consumers. The proposed scheme seeks to keep the total costs imposed on consumers to a minimum by:
 - (a) Maintaining consistent incentives for efficient capital expenditure, by retaining the incentives provided by RPI-X price controls and by providing the data necessary to operate a rolling scheme to ensure that efficiency incentives are consistent over time and across accounting categories.

- (b) Subject to the need to maintain efficiency incentives, minimising the financial risks to companies, so as to limit the increase in income from consumers necessary to ensure financeability.
- 1.4 In order to deliver these benefits, some additional interaction will be required between Ofgem and companies during the course of the price control.
- 1.5 To minimise regulatory costs, the scope of redeterminations could be limited to changes in the timing or particular aspects of scope for a defined list of potential load-related investment projects agreed as part of the main price control review, and/or to a limited list of types of evidence to be used to demonstrate and quantify changes. This would enable the additional regulatory work to be normally limited to an annual review, similar to the reporting arrangements now in place for electricity distribution.
- 1.6 Limitations on the scope of redeterminations would simplify the redetermination process. However, they would also increase the risk that a reopening of price controls will be required in the future (as has been the case with RETS). They may also merely shift work between the ongoing redetermination process and the main price control reviews, without reducing the overall amount of regulatory work required.
- 1.7 Irrespective of the exact scope that is adopted for redeterminations, our view is that the costs of the few members of Ofgem and company staff or consultants that would be involved in producing and checking the redetermination data required by the scheme are likely to be comfortably justified by the benefits of the scheme to consumers in terms of lower increases in the financeability costs required as a result of uncertain investment requirements.

2 THE PROPOSED SCHEME

- 2.1 The proposed scheme is based on the idea of revisiting the price control determination if circumstances change and if the change leads to a significant change in the costs that an efficient company must incur. For example, the unexpected abandonment of a generation project at an early stage in the planning process may allow the company to avoid significant network reinforcement costs; or an adverse planning decision (e.g. a requirement to underground) could lead to a significant increase in expenditure.
- 2.2 The primary design purpose for the scheme is to control the additional costs that will need to be borne by consumers in order to ensure the financeability of transmission network businesses in the face of these uncertain investment requirements.
- 2.3 The scheme would apply to core network costs only. Connection charges are assumed to cover the costs of providing the shallow element of new connections.
- 2.4 In order to maintain incentives for efficiency on the part of companies, and to prevent any actual or perceived risk of expropriation of efficiency gains by a future regulator (and the financing costs that such a risk would impose on today's consumers), any redetermination of costs must be made before the change in costs is incurred. This means that the scheme does not damage the efficiency incentive benefits of an RPI-X price control system, and leaves unchanged investors' exposure to the company's inefficiency risks, whilst protecting them from external risks, in particular the volume risk associated with new generator connections.
- 2.5 For the scheme to achieve its intended financeability benefits, any expenditure proxies that it uses must be applied within a case-specific analysis rather than as a mechanistic proxy formula based on aggregate parameters such as the volume of new connections. This is because, for example, different individual connections can show very substantial differences in unit reinforcement costs per MW of capacity connected, depending on the exact location and environmental or planning requirements. Furthermore, some changes of circumstances that need to be captured by the scheme, such as planning or environmental matters, or necessary changes in network planning assumptions, cannot be associated with any volume of new connections that could provide the basis for a proxy estimate of their expenditure implications.

Decomposition of the capital expenditure programme into projects

- 2.6 The redetermination of expenditure requirements needs to be case specific and focused on projects that have not yet been undertaken. In order to preserve efficiency incentives by avoiding the pollution of expenditure forecasts in one area by actual overspending or underspending in other areas, it is also necessary to be able to separate the effects of uncertainty on different elements of expenditure.
- 2.7 Thus, the first step in the implementation of the scheme is to decompose the expenditure assumed in the price control calculations into distinct projects.
- 2.8 The scheme would specify, for each project, a time profile of projected capital expenditure, specified by reference to a project reference date (and with all monetary

amounts expressed in the money of the project reference date). For example, the reference date for the building of a new transmission line might be the date at which the last planning permission hurdle is cleared. Such a data structure, which is based on the arrangements recently implemented for transmission investment for renewable generation projects, would enable many redeterminations to be limited to the resetting of the project reference date as a result of external events (e.g. delay to planning consents), with minimal regulatory effort.

- 2.9 Some potential projects for which a costing has been prepared may not be included in the main price control on the grounds that they are not considered sufficiently likely. In such a case the project would be still included in the price control determination dataset, but without a project reference date. This would permit an easy redetermination if the events requiring the project to proceed do actually occur.

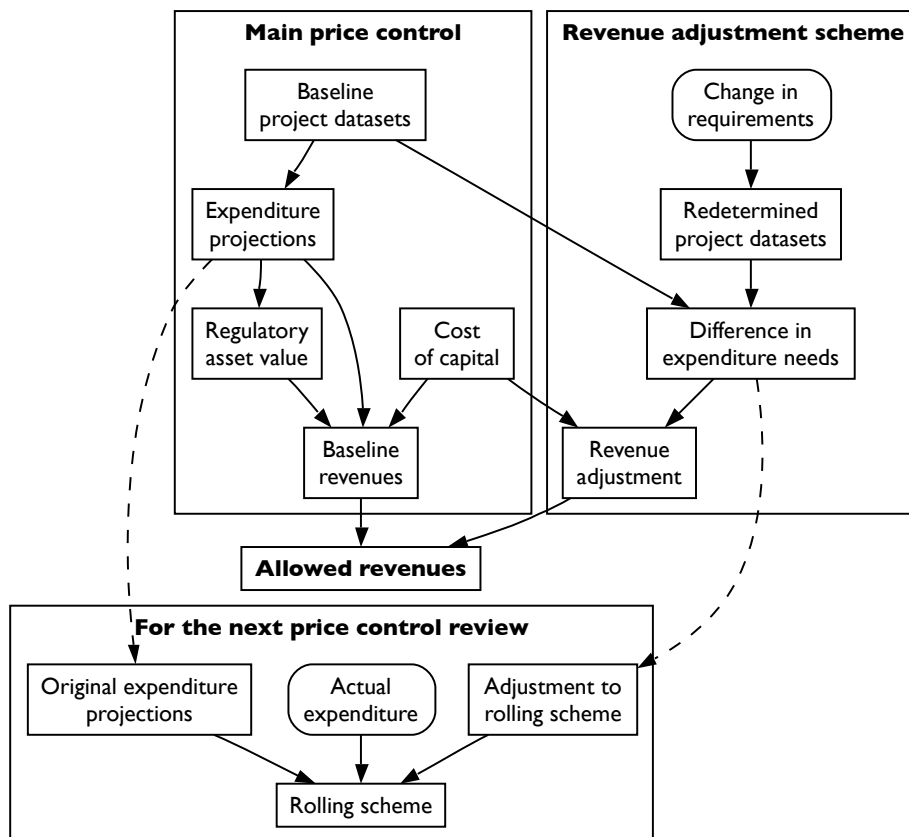
Redetermination process

- 2.10 When an event occurs that requires a change to capital expenditure plans, either the company or Ofgem would be able to propose a change to any affected future project dataset (perhaps subject to a formal materiality threshold). For example, an unexpected planning restriction might lead to a change in the work required or the timescales for a future construction project.
- 2.11 Not all redeterminations would necessarily require an express agreement between Ofgem and the company. For example, an automatic redetermination could be deemed to have occurred for changes to project reference dates, if the reference date for a project was specified on a basis that can be objectively ascertained (such as the date on which a specified planning consent is received).
- 2.12 An important principle of the scheme is that the redetermination procedure can only affect projects whose reference date is in the future. This is to avoid uncontrolled pass through or claw back of actual expenditure.
- 2.13 Given the long lead times for transmission projects, we envisage that the vast majority of substantive changes to capital expenditure plans could be considered through an annual process, leaving only changes to objective project reference dates (e.g. planning consents) to be notified on an ongoing basis.
- 2.14 A redetermination would have two effects, shown in Diagram 2.1 overleaf: it would affect revenues within the control period and affect the next price control review.

Adjustments to revenue limits within the control period

- 2.15 The first effect of a redetermination would be to adjust revenue limits within the control period insofar as it affects forecast expenditure within the control period.
- 2.16 This adjustment would be achieved through an additional term in price control licence conditions. This term would not interact with the calculation of other terms in the formula. Implementing the proposed scheme does not require a particular method of calculation for the baseline revenue allowances to be determined by the main price control process, or interfere with any other incentive terms.

Diagram 2.1: Effects of redetermination



Adjustments to be taken into account at the next price control review

- 2.17 Redeterminations will also lead to changes to the regulatory asset value used as a starting point for the following price control review. The calculation of that adjustment will be simple and mechanical, using pre-established rules and the data on variances in expenditure projections (and related parameters such as a depreciation periods) that have already been agreed as part of the redetermination process.
- 2.18 The proposed scheme does not lead to any additional pass through of actual expenditure to consumers, either during a price control period or across successive price controls. This ensures that the efficiency incentives provided by a RPI-X price control are not damaged by the proposed scheme.
- 2.19 The proposal is also compatible with rolling schemes used to share deviations between projected and actual expenditures with customers in a controlled and consistent manner: a redetermination provides a revised baseline (independent from any actual expenditure) for each category of expenditure, against which overspends and underspends can be calculated and fed into the rolling scheme in the normal way.