7

Early development of options

Early development

Introduction

7.1. The licence condition C27 obliges the ESO to undertake the early development of options in certain circumstances. These are where early development is not carried out by another transmission licensee or an option is suggested by other interested persons. For example, modelling of the network and/or options. The ESO has to do the early development to such a standard that it can perform economic studies on the options to adequately compare the relative suitability of options.

7.2. The ESO publishes its conclusions in the NOA report. This in turn provides the information to the industry about system needs and hence opportunities for them to invest.

7.3. Note that early development of options is different from ESO-led options such as commercial solutions.

7.4. We undertake early development of options to meet the requirements that the revised licence condition C27 outlines in paragraphs 23 and 24.

7.5. The ESO might conclude that an option is worth investigating further because it believes the costs of an option looks low compared to the benefits that it would expect to provide. The ESO accepts that its limited capability to study options' costs and earliest in-service dates limits the accuracy of its view of the costs of options it is developing. The consequence of this could be that an early development option has unduly favourable results at first which displaces and delays what turns out to be the best option. The ESO may make its costs and earliest in-service dates available for scrutiny which could lead to it revising the data put into the NOA economic process.

Process

7.6. The ESO reviews options submitted for the NOA process. The ESO considers the following aspects when reviewing the options:

- Whether there are enough options to meet the requirements on each boundary. We do this by comparing the capabilities against unconstrained flows modelled in BID3. This follows an initial screening to test that options are technically effective with some consideration of the cost.
- If an option has been initially devised but then abandoned. In this case the ESO seeks to understand why the option has been abandoned and as a result the ESO might decide not to pursue the option.
- If the ESO devises an option that the relevant party declines to adopt and develop.

7.7. Interested persons can suggest options and where they can give demonstrable evidence of benefit, the ESO can support them with further analysis or studies. The ESO may involve the TO in developing the options while protecting confidentiality as appropriate. In some cases the ESO might conclude that all possible avenues have been exhausted in which case there is no further action.

7.8. The ESO will apply a screening stage to filter options from interested persons if there are many and it is clear that some are more beneficial than others. This might be founded on engineering judgement based on the following factors:

- Genuine network need.
- Operability.
- Practicality, for instance delivery date.
- Understanding of the costs.
- Whether the same or similar option has been considered before and ruled out for good reason.

7.9. When the ESO carries out early development of an option, it needs to be able to determine the option's benefit, for instance how much it improves boundary capability, the cost and also the earliest in-service date. These are the key factors in the cost-benefit studies. The ESO forms a view on these using the following considerations:

- What the ESO's aim is, for example to improve capability when all other options have been exhausted. This provides an introduction to the nature of the option and the ESO's thinking such as new reactive compensation, new circuit(s).
- The existing parts of the network that are affected, such as connection points for new circuits as well as desired substation layouts (double busbar versus other arrangements).
- Technical parameters of the solution to allow technical studies of the option and determine, for instance, boundary capability and related effects such as fault levels. This might affect the overall benefit of the option as the net gain might be reduced or an investment like circuit breaker replacement might be needed elsewhere if fault levels exceed existing ratings.
- An estimate of the capital cost and earliest in service date based on public cost data and making certain assumptions such as the proportion of a new route that is cable. The ESO consults with the relevant TOs about such examples for their views about an option's practicality.

7.10. The ESO undertakes no stakeholder or consenting engagement work. The ESO seeks the input of the relevant TOs to help it understand the factors that might affect an option.

7.11. If an option receives a proceed, the ESO seeks the support from the relevant TO(s) to develop the option. In this case the ESO informs all relevant parties.