ED1 street-works reopener submission

NORTHERN POWEGRID'S KEY POINTS

- Like any utility with underground assets laid in the highway, Northern Powergrid needs to dig up roads to replace and enhance parts of its electricity distribution network.
- The local highway authorities in the regions that Northern Powergrid serves have been progressively implementing new permit schemes to control these street-works.
- This process has been accelerated by Government, which has encouraged the use of these powers.
- Our dialogue with highway authorities leads us to forecast 100% coverage by January 2020.
- The schemes help highway authorities better manage work taking place on their road network, and reduce traffic disruption benefitting road users, but this comes at a cost:
    - the local highway authority can recover 50% of its administrative costs in the form of fees for the permits; and
    - the permits allow the highway authority to impose conditions on the permit, such as manned traffic signals or shorter working days, which add to the cost of street-works.
- This reopener submission requests additional price control allowances to cover the cost of new permit schemes that have been implemented since July 2013, totalling £14.5m. It also requests funding in respect of lane rental schemes.

Contents

1. Introduction

1. When Northern Powergrid's up-front cost allowances for the ED1 period (2015-23) were established, it faced only a small number of permit schemes (that had been implemented in 2012) under the Traffic Management Act 2004.
2. Since then:
    a. A number of additional local highway authorities have implemented a street-works scheme; and
    b. a large number are now in the process of implementing a scheme, or are broadening the coverage of an existing scheme.
3. Based on our ongoing engagement with local highway authorities, we now expect that, by April 2020, permit schemes will have 100% coverage within the regions that Northern Powergrid serves.
4. Ofgem provided a mechanism to give a cost allowance for permit scheme costs that were not covered by the base price control, through the opportunity to trigger a cost reopener in May 2019. This document sets out Northern Powergrid's funding request through this mechanism.
5. We understand Ofgem has concerns that, given the relative uncertainty, there is a risk that in setting ex ante allowances consumers could face either windfall gains or losses.
6. We are submitting a request for:
    a. additional *ex ante* allowances for our estimated incremental costs associated with permit schemes; and
    b. a formula based adjustment for our estimated incremental costs associated with lane rental schemes (where we have less certainty in respect of our estimated future costs).
7. If Ofgem was instead minded to fund all our incremental street permit costs through a mechanism that removes or reduces any forecasting risk (e.g. a formula based adjustment or an *ex post* true-up calculation), we would be happy to discuss further how this might best be achieved.
8. Equally, if Ofgem does not wish to allow a formula based adjustment in respect of lane rental schemes, we request a fixed allowance in respect of these schemes, adjusted based on the probability of them going ahead within the ED1 period.

2. Legal requirements

9. This document constitutes a notification by Northern Powergrid to the Gas and Electricity Markets Authority ("GEMA") under the provisions of electricity distribution licence charge restriction condition ("CRC") 3F, proposing an adjustment to the level of allowed expenditure in respect of Specified Street Works Costs ("street-works costs").

10. Northern Powergrid provides this notification on behalf of its two licensees, Northern Powergrid (Northeast) Limited (hereafter "Northeast" or "NPgN") and Northern Powergrid (Yorkshire) plc (hereafter "Yorkshire" or "NPgY") (together "NPg").

11. The proposed base adjustment to allowances, including the years to which it relates, is set out in the table below.

Table 1: proposed adjustments to base allowances (2012/13 prices)

£m	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Total
Yorkshire	0.32	0.77	0.88	0.80	0.88	1.90	1.87	1.84	9.25
Northeast	0.03	0.02	0.05	0.24	0.36	1.54	1.51	1.49	5.23

12. In addition to the base adjustment, we propose a further formula based adjustment set equal to 0.4 x £1,950 x no of days working on roads with a lane rental scheme in place (2012/13 prices).

13. This adjustment to allowed expenditure meets all of the requirements of charge restriction condition ("CRC") 3F.8 of Northern Powergrid's electricity distribution licences ("the licence"). These requirements include that the forecast costs:

    a. are based on information on the level of efficient cost that was unavailable or did not qualify for inclusion when Northern Powergrid's base revenue allowance was derived;

    b. meet the specified materiality threshold;

    c. relate to April 2015 onwards; and

    d. cannot be made through any other licence mechanism.

14. This submission also meets the requirements of CRC 3F.9, with the basic details (3F.9a and b) met in this section, and the basis of the calculation being set out in **section 4:** Details of our cost estimates.

15. Lastly, this submission only relates to costs associated with streets that were not covered by permit requirements prior to 1 July 2013. This means the submission meets the conditions mentioned in the regulatory instructions and guidance (RIGs) glossary and financial handbook at paragraph 7.35.

3. Stakeholder engagement

17. Northern Powergrid engages regularly with local highway authorities in the regions it serves in relation to street-works.

18. Prior to the ED1 period, and until early 2018, the uptake of permit schemes was relatively slow and gradual in our regions. In the Yorkshire distribution services area, the initial introduction of a partial scheme by 6 local authorities in 2012 was followed by further uptake in Q1 2015 and in 2016, and then more recently a move by some highway authorities from partial to "all streets" coverage. In the Northeast, the first scheme was implemented in 2015, followed by another in 2018.

19. Through our engagement with local highway authorities we have identified two factors that have led to a significant acceleration in the implementation of permit schemes (and therefore the costs we face):

    a. In July 2018 the secretary of state for transport wrote to local highway authorities:

        i) highlighting that the schemes are "*a far more effective way of proactively managing street and road works on the local road networks than operating under the older, more passive street works noticing system";*

        ii) asking them to "*consider introducing a permit scheme by 31st March 2019*";

        iii) reminding them that he has powers to direct the implementation of a scheme under section 33(2) of the Traffic Management Act 2004 and stating that he would "*be minded to consider this approach if your local authority continues with what I believe are out-dated and ineffective noticing arrangements*"; and

        iv) specifically mentioning local authorities in the north (and south west) of England.

    b. The Department for Transport is developing a new "street manager" software suite which it aims to roll out by April 2020; we understand that one objective of this suite is to reduce the barriers to implementing a scheme and thus facilitate all local highway authorities moving to implement permit schemes.

20. As a consequence, over the course of the last 12 months, many authorities in the regions Northern Powergrid serves have informed us that they expect to implement a scheme for the first time or impose a scheme on additional streets within their area. Some of these changes have already been implemented with the rest expected during the course of 2019 or in January 2020. This includes a large group of local highway authorities in the North East of England going through a collective evaluation and consultation process.

21. The table below sets out the dates local highway authorities have implemented schemes or our forecast (based on our engagement with those authorities) of implementation dates.

Table 2: permit scheme implementation dates

Highway Authority	Permit scheme start date	Current coverage	Expansion to all streets	Licensee(s) affected
Barnsley	Jun-12	Partial	Jun-19	Yorkshire
Doncaster	Jun-12	All Streets	Apr-19	Yorkshire
Kirklees	Jun-12	Partial	Jan-20	Yorkshire
Leeds	Jun-12	Partial	Jan-20	Yorkshire
Rotherham	Jun-12	Partial	Oct-19	Yorkshire
Sheffield	Jun-12	Partial	Jan-20	Yorkshire
North Tyneside	Feb-15	All Streets	N/A	Northeast
Lancashire	Mar-15	All Streets	N/A	Yorkshire
Bradford	Mar-15	Partial	Jun-19	Yorkshire
Calderdale	Mar-15	Partial	Jan-20	Yorkshire
Derbyshire	Mar-15	Partial	Jan-20	Yorkshire
Wakefield	Mar-15	Partial	Jan-20	Yorkshire
North Lincolnshire	Mar-16	All Streets	Jan-18	Yorkshire
Lincolnshire	Oct-16	All Streets	N/A	Yorkshire
North Yorkshire	Feb-18	All Streets	N/A	Northeast & Yorkshire
Darlington	Jan-20	All Streets	N/A	Northeast
Durham	Jan-20	All Streets	N/A	Northeast
East Riding of Yorkshire	Jan-20	All Streets	N/A	Northeast & Yorkshire
Gateshead	Jan-20	All Streets	N/A	Northeast
Hartlepool	Jan-20	All Streets	N/A	Northeast
Hull	Jan-20	All Streets	N/A	Yorkshire
Middlesbrough	Jan-20	All Streets	N/A	Northeast
Newcastle	Jan-20	All Streets	N/A	Northeast
North East Lincolnshire	Jan-20	All Streets	N/A	Yorkshire
Nottinghamshire	Jan-20	All Streets	N/A	Yorkshire
Northumberland	Jan-20	All Streets	N/A	Northeast
Redcar & Cleveland	Jan-20	All Streets	N/A	Northeast
South Tyneside	Jan-20	All Streets	N/A	Northeast
Stockton on Tees	Jan-20	All Streets	N/A	Northeast
Sunderland	Jan-20	All Streets	N/A	Northeast
York	Jan-20	All Streets	N/A	Northeast

4. Details of our cost estimates

22. We have identified three routes through which permit schemes impose additional costs compared to the older noticing regime:

    a. the permit fees themselves, and associated permit penalties;

    b. the administrative requirements of filing permit applications; and

    c. the cost of the various conditions that can be imposed by a permit, with two having been identified as driving significant additional costs:

        i) restricted hours; and

        ii) manned traffic signals.

23. Our cost estimates are, therefore, broken down across these categories in ***Table 3*** ~~***Table 3***~~ below.

Table 3: cost breakdown by type (2012/13 prices)

£m	Actual, to 2018/19	2019/20 to 2022/23	Total cost
Yorkshire	**2.77**	**6.48**	**9.25**
Permit fees	0.36	3.29	3.65
Admin costs	0.01	0.43	0.44
Permit penalties	0.02	0.35	0.37
Permit conditions: manned traffic lights	0.92	0.83	1.75
Permit conditions: reduced hours	1.45	1.58	3.03
Northeast	**0.33**	**4.90**	**5.23**
Permit fees	0.16	2.28	2.44
Admin costs	0.00	0.27	0.27
Permit penalties	0.04	0.60	0.64
Manned traffic lights	0.01	0.17	0.18
Reduced hours	0.11	1.59	1.70

24. Below we describe the methodology by which each of these figures has been calculated.

Permit fees

25. We have detailed data on the actual permit fees incurred to date, by scheme, and by licensee. This allows us to state costs up to and including 2019/20 for permit schemes imposed from March 2015 onwards.

26. By April 2020 we forecast full coverage of permit schemes in the regions we serve. Our forecasts for 2019/20 onwards have therefore been based on:

    a. An average permit cost for each category of road (0-4) from the existing permit schemes we face, which tend to have similar fees; and

b. the number of street-works each licensee undertook on each category of road in 2018/19.

27. Over the course of 2019/20 we are seeing progressive uptake in our Yorkshire distribution services area, while in our Northeast distribution services area local highway authorities are typically forecasting uptake at the start of 2020. We have therefore assumed that 2019/20 costs will be halfway between 2018/19 and 2020/21 costs for Yorkshire, and one quarter of the way between for Northeast.

28. We have then assumed the costs stay flat in nominal terms for later years.

Administration costs

29. Permit schemes are more expensive for Northern Powergrid to administer than the older noticing regime.

a. Permits require more information to be inputted when submitting applications.

b. An increased number of interactions are required to process refused or granted permits and communicate permit status to all those involved in the delivery of the works.

c. The permit fees must then be verified and processed for payment.

30. This can double the administration burden, compared to the prior notice scheme.

31. To cover the additional administrative burden of new permit schemes, we have assumed that from 2019/20 we will require additional administrative staff at a total employment cost of £210,000 per annum (2018 prices). In addition we include an external benchmark cost of £2,210 (2018 prices) for the cost of IT equipment and network access.[1]

32. These costs have been split 60:40 between Yorkshire and Northeast based on our standard allocation between the two licensees, reflecting their size. Northeast is also forecast to incur 40% of the relevant permit costs over the period.

33. We have assumed the full additional administrative cost from 2020/21 onwards, rising with RPI inflation. For the earlier years we have estimated the administrative cost by pro-rating the 2020/21 forecast based on the permit fees incurred (or forecast to be incurred in the case of 2019-20).

34. When compared to our own calculations, we note that Cadent identified significantly higher administrative costs, relative to the permit cost being claimed, as part of it GD1 street-works reopener submission. On this basis we cannot rule out that we have omitted significant administrative costs from this submission; if this is the case, it should be taken into account in Ofgem's assessment of the efficiency of the overall level of cost proposed.

[1] Source: Cadent, East of England Uncertainty Mechanism Claim, page 21. We presume that Ofgem judged this level of cost as efficient in its assessment of that submission since we have identified no reference to it having been reduced in the decision document.

Permit penalty fees

35. Additional penalty fees can be incurred under permit schemes, on top of the overstay fees that were already a feature of the noticing regime.

36. With a large number of works taking place, some penalty fees are likely to be incurred. It would not be efficient to mitigate the risk of incurring penalties to zero, as the resulting additional costs would be disproportionate to the fees avoided.

37. We have therefore included in our cost calculation the cost of fees incurred to date, and a forecast of fees we expect to be incurred in the rest of the period. We have calculated the latter by:

    a. Starting with the fees incurred in 2018-19 for each licensee;

    b. Increasing this in proportion with our forecasts for permit costs.

Permit conditions – restricted hours

38. There are a range of different time restrictions that can be imposed through permit conditions, to moderate the impact of street-works on traffic conditions. These include a shortened day, e.g. 9am to 3pm, avoiding peak hours.

39. In our experience the move to permit schemes has led to a significant increase in the number of occasions on which we would work for these shorter durations. For shortened days, one of our main contractors has repeatedly informed us as permit scheme coverage has spread that it incurs additional downtime as a consequence. Ultimately we bear these costs.

40. To estimate the cost of restricted hours up to and including 2018/19 we have:

    a. calculated the unproductive time imposed by the permit conditions we have faced, based on a conservative assumption of an 8 hour typical productive day[2]; and

    b. multiplied this by the hourly cost of a typical "dig" team.

41. To estimate the annual cost from 2020/21 onwards, we have scaled up each licensee's 2018/19 cost based on the proportion of traffic sensitive roads currently covered by permit schemes for that licensee moving to 100%, and then increased costs in line with RPI.

42. For 2019/20, we have reflected the expected phasing of the scheme implementation in the two licensees by reflecting only part of the step change (50% for Yorkshire, 25% for Northeast).

Permit conditions – manned traffic signals

43. The standard approach to traffic signals is to use traffic-sensitive technology to ensure the signals change at an appropriate frequency based on whether traffic is waiting.

[2] In practice a standard working day for our contractors is 10 hours, but this will include travel and set up time.

44. Permits can be used to impose a requirement for manned traffic signals, where an operator is in place to manually change the signals. This can be beneficial to road users in more complex road situations, such as close to a roundabout, junction, or another set of traffic signals, where queuing traffic can have "knock on" effects further down the road. It was relatively rare for Northern Powergrid to use manned traffic signals prior to the move to permit schemes. This change has, therefore, led to a significant increase in the number of occasions on which manned traffic signals are used. Contractors will be able to recover these costs from us through the competitively determined rates at which they operate.

45. We have calculated the cost imposed by these manned signals, in 2015/16 to 2018/19, for Northeast and Yorkshire based on:

    a. the cost per hour of manned traffic signals, at £40 per hour, which was provided by our contractor; multiplied by

    b. the duration of works which the manned traffic signals were required for, based on our street-works database (including the detailed conditions in the permit).

46. We have used the same methodology to forecast future costs as with restricted duration works.

Lane rental

47. Local highway authorities that have had a successful permit scheme in place for some time can impose a lane rental scheme. Under these schemes, occupation of a lane during certain hours attracts a charge of £2,500 per day (£1,950 per day in 2012/13 prices). Avoiding or minimising the charges means incurring additional costs associated with working overnight or at weekends, and will not always be cost effective. On average, circa 20% of electricity schemes affected by lane rental in a trial scheme have incurred the associated lane rental costs.[3] The other circa 80% will take place overnight or at weekends, incurring additional costs if they would have otherwise (if they had taken place during working hours).

48. Given that several Local Authorities in our distribution services areas have operated successful permit schemes for several years, and will meet the guidance requirements to impose a lane rental scheme[4], it is reasonable to expect that some will implement one in the ED1 period. There is, however, a higher degree of uncertainty over the timing and coverage of these schemes. We have therefore requested a formula based addition to our base allowances, specified on page 4 of this submission as 40% of the potential lane rental charge for any works that take place on streets covered by a lane rental scheme. This discount on the maximum potential charge reflects the fact that:

    a. we expect only circa 20% of such works to take place during the times of day when such charges would be incurred; and

[3] Transport for London Lane Rental Monitoring Reports 2016/17 & 2017/18

[4] Department for Transport, August 2018, Lane Rental Schemes, Guidance for English Local Highway Authorities

b. the remaining circa 80% of works would avoid the charges due to taking place out of hours but would incur additional costs that are not provided for in base allowances (e.g., costs associated with working at night).

49. The additional costs we have allowed for at b. are based on the high-level assumptions that:

a. of the schemes that avoid the lane rental charges, half would incur these additional costs; and

b. where additional costs are incurred, these costs would average half of the cost of the lane rental (had they taken place within hours).

50. Absent this formula, the base allowance request in this submission should be adjusted upwards to include a probability adjusted expectation of lane rental costs within the period. Northern Powergrid would then carry the risk around this scenario.